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# Organizational Culture Re-Engineering and Service Innovativeness the Influence of Effective Corporate Tax Rate and Corporate Board Characteristics on Corporate Performance of Listed Consumer Goods Companies in Nigeria

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**Abstract:** *The study examined the influence of effective corporate tax rate and corporate board characteristics on corporate performance of listed consumer goods companies in Nigeria from 2011 to 2021. Archived secondary data explored and collated via purposive sampling were tested for robustness, skewness and kurtosis and found fit for purpose. The OLS regression results reveal the cumulative $R^2$ (0.11) which is the multiple coefficient of determination that gives the proportion or percentage of the total variation in the dependent variable (corporate performance) explained by the corporate effective tax rate and board characteristics. Therefore, the Federal Inland Revenue Service together with Financial Reporting Council of Nigeria's committee on corporate governance is advised to set a more inclusive, effective, thoughtful and more flexible tax laws and code of corporate governance in other to improve the corporate performance of consumer good companies in the short-run and the Nigerian economy in the long run.*

**Keywords:** *Effective Corporate Tax, Corporate Board Characteristics and Corporate Performance*

## 1.1     INTRODUCTION

In every country of the world, whether developing or developed, government undertakes a lot of activities for the common good, and government extracts in various proportions from the wealth of the citizens for this purpose. It is in this sense that taxation connotes a sense of rights and responsibility, rights owed to individuals and duties owed by the individuals to the society. As a result of the process of taxation, some taxpayers find themselves with less money to spend and the government finds itself with more money to execute common projects for the common good. This transfer of wealth right from citizens to the government gives rise to obligation on the government to use this right in a way that is most beneficial to the citizens as a whole (Soyode & Kajola, 2006). Tax assessment is an arrangement of fund-raising for bankrolling some government disbursements on consumption through commitments from citizens or corporate bodies; also, it is suggested that, tax assessment is an arrangement of enforcing certain equal sum of cash on people, organizations and workplaces by a legitimate regime to make resources accessible to empower the government to play out her obligations. The fact that some corporations pay less tax than the others give rise to the furor about the concept of Effective Corporate Tax Rate (ECTR).

ECTRs are regularly utilized by firm managers as well as corporate strategists as a device to make extrapolations about corporate levy assessment frameworks since they give an advantageous outline measurement of the aggregate impact of different duty motivating force and corporate ECTRs modifications (Richardson & Lanis, 2007, p.3; Gupta & Newberry, 1997, p.4). Empirical explorations from the US has shown that there are ECTRs deviations athwart corporations, these variations in ECTR depicts that the company income tax framework was unjust, hence, it was utilized as a significant legitimization for restructuring corporate taxation. Notwithstanding, there is a paucity of exploration on ECTRs as well as it determinants, particularly in nation states outside the US (Richardson & Lanis, 2007, p.3). According to Albertazzi and Gembucorta (2006), tax obligation of consumer goods companies may not be properly determined by applying a blanket rate because of their operational and highly regulated nature which influences their capital structure. As such there have been agitations for determining tax obligations of consumer goods companies using the concept of Effective Corporate Tax Rate (Neghina, 2014). The prevailing economic downturn that affects so many corporations of recent make explorations on ECTR, corporate governance and corporate performance a timely priority for consequential scholars.

The last two decades have witnessed several economic downturns and a large number of corporate scandals and corporate failures in financial and service institutions across the world. Corporate governance was a central issue to these corporate failure scandals as it portrays an inefficient corporate governance mechanism, and hence, taken in to consideration for further investigation by scholars as well as investors (Nodeh, Anuar, Ramakrishnan, & Raftnia, 2016). Entrusting unlimited authority to executives also provide desirable ground for abuse of trust in tune with the maxim, absolute power corrupts absolutely; all these conditions among others are some of the factors that contribute to scandals in big companies around the world. To mitigate such situations, efficient corporate governance mechanisms with board characteristics as it major component should be put in place by stakeholders through regular monitoring and auditing of the executive management for their stewardship intermittently; this process of holding corporate managers to account for their stewardship by stakeholders in other to checkmate corporate excesses is known as corporate governance.

Jensen and Meckling (1976) defined such problem (Corporate governance and Performance) as a principal-agent problem which could affect firm performance and value, where the principal is the shareholder and the agent is the manager. Taking these conflicts into consideration, rules and guidelines are needed to make sure that firms are well governed and directed to achieve success and stability, as without such guidelines and regulations these conflicts will affect firm performance. Understanding different aspects of performance measurement and choosing relevant measures are important for pursuing research objectives. Performance measurements offer insights into appropriate measures for answering research questions. However, it is not always agreed as to what performance measures should be employed and used (Haniffa & Hudaib, 2006). The outcomes obtained in the collected works are neither conclusive nor definitive and, accordingly, the contribution of new evidence will improve the state of knowledge vis-à-vis the questions raised in this exploration; in essence, to know whether the composition of the corporate governance structure gives priority to the functions of supervision and, furthermore, determining if that composition (corporate governance structure) affects the performance of the firm.

It is against these background and considering the huge amount of resources in form of agency costs that shareholders commit to good corporate governance structure for the sake of sustainability and posterity vis-à-vis performance that this study sought to examine the influence of effective corporate tax rate, board characteristics (an element of corporate governance) on the financial performance of listed consumer goods companies in Nigeria. Developing countries are often faced with a myriad of problems, such as underdeveloped and illiquid stock markets, economic uncertainties, weak legal controls and investor protection, frequent government intervention, weak financial markets, ineffective legal system, weak corporate governance, predominance of concentrated shareholding, low information disclosure level and desire to maintain control over firms by the majority shareholder in connivance with firm managers; however, in Nigeria, it is not the lack of corporate governance structures that is the issue, but their appropriateness, as well as the effectiveness of monitoring the compliance mechanisms (Garko, 2014). These structural characteristics, demand effective corporate governance in these countries (Gonenc & Aybar, 2006). It is suggested by Okike (2007), that corruption fueled by unreliable audit firm is a major obstacle to the enforcement of standards in Nigeria. Nigerian stakeholders see that some auditors are unreliable because they connive with management to defraud their companies (Okike, 2007). The recent events that follows the aftermath of the 2009 world financial crisis involving the much publicized corporate governance failure in Nigeria's banking sector (that led to collapse, merger, acquisition and eventual recapitalization order of a minimum of ₦25 billion by the CBN) reveal common trends in the affected institutions; this makes investors and other stakeholders to lose faith in most organizations, resulting in a negative effect on total assets, turnover and the profitability potentials of organizations (Garko, 2014). The reasons being the pervading culture of corruption and lack of institutional capacity to implement a credible code of corporate governance, that has also earned Nigeria a bad reputation and made private and institutional investors (local and foreign) hesitant to invest in the Nigerian economy. These postulations made provides the need for more investigations into the corporate governance culture in Nigeria's consumer goods companies and how it impacts performance of the firms. Hence, using different variables, methods, scope, and domain, among others; the need to reinvestigate effective corporate taxation as well as corporate board characteristics elements and how it affects performance in Nigeria (a developing country) are some of the problems identified in line with the philosophy of positivism and critical realism. It is against these background and considering the huge economic importance of ECTR and corporate board characteristics on the performance of all the firms in various domains in the economy and the raising insecurity bedeviling Nigeria as a result of variants of socio-economic problems that this study examines the influence of corporate effective tax rate, and board characteristics on the performance of listed consumer goods companies in Nigeria. The main objective of this study is to examine the influence of corporate effective tax rate, and board characteristics on the corporate performance of listed consumer goods companies in Nigeria.

## 2.0 REVIEW OF RELATED LITERATURE

By and large, empirical literature on the Effective Corporate Tax Rate, Corporate Board Characteristics and Corporate Performance are focused on developed countries and developed capital markets such as the works of Lima, Dob, and Vu, (2020); Rajkovic, (2020); Lu and Zhu, (2020); Li, Li, and Xie, (2020); Nodeh, *et al.*, (2016); and Farhat (2014). The findings of these studies may not be applicable to African countries including Nigeria which have different regulatory and cultural environments. By contrast, a limited number of research studies have

examined CG practices of companies in developing economies such as Amedu, (2016); Garko, (2014) among others. The findings of these studies are mixed. Some scholars like, Gul and Leung (2004) and Wallace and Naser (1995) argue that socio-economic and political environments between countries, organizational structures and construction of corporate disclosure indices may also lead to different results between effective corporate tax, corporate board characteristics and corporate performance. As a result, an investigation, in other settings of ECTR, different corporate governance element that correlate with the extent of performance disclosure seems justified. A further motivation for this study was to examine whether the variables that prior researchers have found to be significant in explaining performance of companies in developed countries also apply in a developing country like Nigeria.

Although, in Nigeria, Amedu (2016) examines the impact of CEO Power on Company Performance in Nigerian quoted firm for the year 2016, with corporate governance element utilized as proxies for CEO power and Tobin's Q and ROA as proxies for performance, in a cross-sectional study that used hierarchical regression analysis and survey research strategy; this study differs from Amedu (2016) in terms of the variables examined, scope to be covered, domain, and methodology. Again, this study sought to cover the period 2011 to 2020 as against the period 2016 covered by the study of Amedu (2016). Moreover, the findings in Amedu's study is generalized on Nigerian quoted firms, hence making it difficult to ascertain the effect of corporate governance element (CEO power) on performance due to industry-specific bias. This study in addition to the explanatory variables used by Nigerian and other developed economies corporate governance studies also uses effective corporate tax rate and board characteristics as explanatory variables which are not covered by most of the Nigerian corporate governance studies.

Therefore, this study distinguishes itself from prior studies in many aspects, among which are: First the study contributes to three streams of literature, the performance literature, effective corporate tax rate and corporate governance literature, by providing up to date empirical evidence on the association between effective corporate tax rate, board characteristics and corporate performance in emerging markets - Nigeria where corporate governance studies are relatively limited compared to developed countries. Second, the study recognizes the fact that, corporate governance and firm performance are not immune to cyclical changes of boom, doom and gloom in the economy, hence, an expose of evidence before and after the COVID-19 pandemic fueled recession are going to be empirically discussed and tested in the study as well.

## 3.0    METHODOLOGY

Exploration design was explained by Saunders *et al.*, (2016, p.55) as a "blueprint, idea, structure or strategy that guide the research process which may include the bases upon which a researcher propose to gather data, how data will be collected and analyzed". It also refers to the general plan and conditions for collection and analysis of data, relevant to the research purpose. A combination of quantitative, descriptive and exploratory research design was utilized in the study. The choice of this qualitative and descriptive design was due to the fact that numerical data are collected and described in a quest to answer some of the research questions. Epistemologically, an archival research strategy (ex facto/non-survey) and deductive approach was adopted for this study. The choice was borne out of the fact that the study utilizes archived secondary data. Likewise, this study is a longitudinal time-horizon single-country study, by and large, facts for this study is collated from the financial records of the consumer goods companies listed on Nigerian Exchange Group for epoch of eleven years (2011 - 2021).

The working population (sample) extracted from the population of consumer goods companies listed on the Nigerian Exchange Group were filtered based on some criteria's (a judgmental/purposive sampling technique). The under listed criteria as adapted from the works of Rodriguez *et al*., (2020); Greeff, (2019); Rodriguez *et al*., (2019); Delgado *et al*., (2018); Kraft, (2014); Adhikari *et al*., (2006); Derashid and Zhang, (2003); Gupta and Newberry, (1997); and Zimmerman (1983), are as follows:

i. Companies that are not listed within these period are excluded.
ii. Companies without financial data required for exploration are excluded.
iii. Companies that record an operational-loss and or adverse cash-flows or tax-refund are declared and simulated where possible.
iv. Companies with an ECTR that exceeds 1 are excluded.
v. Companies with so many omitted information as well as those with no reported activity from 2011-2021 are excluded.

The earliest and last filter condition were to safeguard the comprehensive reflection of the disclosure behavior of consumer good companies in the whole epoch captured by the study as well as to satisfy the minimum requirements of a non- survey study. The application of the above criteria results lead to the emergence of the working population utilized for this study.

Multiple regressions analysis and all it associated robustness tests was utilized to examine the affiliation amongst the explained-variable (corporate performance) and explanatory variables (ECTR and board characteristics). Panel data analysis is adapted for data analysis due to longitudinal nature of the data. The multiple regressions are deployed to test the hypotheses of the study due to Prior studies of Corporate performance, Board Characteristics and ECTR such as Rodriguez *et al*., (2020), Stamatopoulos *et al*., (2019), (2007), Derashid and Zhang (2003), Omer and Molloy (1991), and Zimmerman (1983).

**Model Specification**

COPER = β0+ β1it ECTR it + β2itBSZ + β3it BCOM + ε ........... (1)

Where;

B0..., βk   is the regression model coefficients of the independent variables

x0..., xk         is the parameters of the explanatory variables

ε         is the random error term

it         at a given period or point in time

Where;.

ECTR=GAAPECTR=         Income         statement         variant         of         Effective         Corporate         Tax         Rate

BSZ= Board Size

BCOM= Board Composition

COPER= Corporate performance to be proxied by ROA= Return On Assets

## 4.0    RESULTS AND DISCUSSION

The normal p-plot of the regression standardized residual (see Appendix B) indicates a good fit and does not suggest the presence of outliers among the regression standardized residuals. In other words, the points on the plot do not appear to deviate significantly from the line of best fit indicating that the normality assumption is valid and fulfilled. The VIF in excess of 10 should be taken as an indication of harmful Multicollinearity (Neter, Wasserman, & Kutner, 1989 and Gujarati, 2003). Therefore, Multi-collinearity test carried out to check whether there is a

sequential correlation between independent variables which will mislead the result of the study shows that the maximum VIF is 1.70, average is 1.46 and the minimum VIF is 1.21 and this is less than 10 which indicate absence of Multi-collinearity (See Appendix B). Skewness and Kurtosis test carried out on all the variables indicates that, none of the variables were highly skewed with a value of 0.22, 0.13 and 0.06 respectively (Appendix B). The results of the tests therefore affirm that the dependent variable data of the research did not differ significantly from a normal distribution, as evidenced by the normal Skewness and Kurtosis test. Hence, there is no need to normalize the variable data found to be highly skewed using Winsorization by limiting extreme values in the statistical data to reduce the effect of possibly spurious outliers.

The result of Breusch-pagan/Cook-Weisberg test for heteroscedasticity reveals that errors have constant variance (it is homoscedastic and not heteroskedastic), which indicates that the Ordinary Least Square (OLS) estimators will be the Best Linear Unbiased Estimators (BLUE), and also the P-values will be reliable. This is evidenced by the insignificant probability (p-value) of the chi square of 0.7967 (See Appendix B). This signifies presence of homoscedasticity and absence of heteroscedasticity in the model (Garko, 2014). GLS is no longer an unbiased estimator when homoscedasticity is present (Gujarati, 2003). From the results of the robustness tests performed to determine the accuracy and reliability of research data used in testing the study hypotheses, it shows that the data is free of regression errors capable of invalidating the research's regression assumptions. In other words, the data is suitable and the regression estimates obtained are reliable.

The OLS regression results reveal the cumulative $R^2$ (0.11) which is the multiple coefficient of determination that gives the proportion or percentage of the total variation in the dependent variable (corporate performance) explained by the corporate effective tax rate and board characteristics (Garko, 2014). Hence, it signifies that 11% of the total variation in corporate performance of listed consumer good companies on the Nigerian Stock Exchange are caused by effective tax rate, board size, and board composition, while the remaining 89% of the total variation in the corporate performance (proxied by return on assets) are caused by factors not explained by the model. This indicates that the model is fit and the variable are properly selected, combined and used. This can be confirmed by the p-value statistics of 0.04 at 5% level of significance, confirming the rejection of the null hypotheses and acceptance of the alternate hypotheses, that, corporate effective tax rate, board size and board composition have significant impact on the corporate performance of listed consumer goods companies in Nigeria.

## 5.0    CONCLUSION AND RECOMMENDATION

Corporate governance as set and dictated by the Nigerian Code of Corporate Governance under the auspices of the Financial Reporting Council of Nigeria as amended in 2018 by the Federal Executive Council of Nigeria determines to some extent the position of the returns on assets of the listed consumer goods companies in Nigeria. Thus, the fluctuations of the NCCG practice and Effective Corporate Tax rate in Nigerian consumer goods companies does result in high or low returns accruing to the companies in Nigeria. Therefore, the Federal Inland Revenue Service together with Financial Reporting Council of Nigeria's committee on corporate governance is advised to set a more inclusive, effective, thoughtful and more flexible tax laws and code of corporate governance in other to improve the corporate performance of consumer good companies in the short-run and the Nigerian economy in the long run.

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# Contact Employee Rewards System and Customer Loyalty of Healthcare Firms in South-South, Nigeria

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*Abstract:* This study determined the link between the contact employee rewards system and customer loyalty of healthcare firms in South-South, Nigeria. The study adopted an explanatory research design and collected data from eighty-five (85) staff and patients of the studied healthcare providers using a structured questionnaire. The Spearman's Rank Order Correlation served as the test statistic relying on SPSS version 21.0. The study observed that contact employee rewards systems have a positive and statistically significant relationship with customer loyalty. The study thus work-life balance significantly relate to customers loyalty and customers loyalty expressed as resistance to switching, repeat patronage, and word of mouth hinges on the healthcare providers' contact employee rewards system. As such, the study recommends that the healthcare firms that seek to improve customers' loyalty should consider an attractive contact employee rewards system as an essential mechanism and the healthcare firms should consider appropriate employee rewards system as an imperative strategy to improve on customers' resistance to switching behavior, repeat patronage and positive word of mouth.

Keywords:

*Keywords:* Rewards System, Resistance to Switching, Repeat Patronage, Word-Of-Mouth and Customer Loyalty

## INTRODUCTION

The rapidly evolving value requirements of customers, globalization and innovations in technology, dynamic nature of the contemporary business environment coupled with new business concepts, formats, and activities of competitors have made it imperative for firms to look inward for strategies that elicit customer loyalty and confer sustainable competitive advantage. Customer loyalty is customers' predisposition to prefer one brand and its products over those of competitors, based on the satisfaction they derive from using the brand's products (Sima & Elham, 2015). It is the attitude of customers to prefer a brand due to satisfaction derived from using that brand or other psychological, economic, or social reasons (Otite & Didia, 2017). Research suggests that customers' exhibition of loyalty is anchored on their positive experiences with the service contacts regardless of whether the firm has the best product, price, or service delivery (Singh & Khan, 2012; Otite & Didia, 2017). This position coheres with the assertion that a strong positive customers experience increases customers' loyalty and creates hopes of achieving a sustainable competitive advantage (Sadia, 2011). To provide a quality customers

experience, a company also needs skilled and satisfied employees that could keep up with the demand of providing outstanding customers experience (Mohammad & Afroja, 2013) since service delivery involves interaction between contact employees and customers. Contact employees could influence service quality perception of the patient through their attitude (Bellaouaied & Gam, 2012), as such, they need to be well-trained on better ways to outsell their competitors through service delivery, products knowledge, and also be motivated to assist customers.

As earlier stated, the quickly evolving value requirement of customers, coupled with fierce intra- and inter-industry competition has continually stretched the ability of healthcare providers, especially tertiary healthcare providers' in South-South, Nigeria, to win the loyalty of customers. This is despite these healthcare providers' deployment of novel service delivery strategies aimed at commanding customers' loyalty that engender sustainable competitive edge.

Besides, the notable competition among players in the healthcare sector, there are also indications of palpable dissatisfaction among patients in Nigeria, for the quality of services delivered by the healthcare providers. Ateke (2020) observes that healthcare providers are accused of "wrong diagnoses, mismanagement of health crises, delayed attention, and nonchalant attitude of service personnel and poor service provider-client relationship". These observations cohere with the way patients easily shift patronage from one hospital to another; and even resort to medical tourism in search of better healthcare (Taiye et al., 2017). The unending race for new customers by hospitals is a further demonstration of the suspicion that healthcare providers do not command the loyalty of customers (Sik et al., 2014). The prevalence of disloyalty of healthcare customers may be attributed to healthcare providers' employees' rewards system.

A preliminary survey on rewards systems among healthcare providers' in South-South, Nigeria shows that the tertiary hospitals regularly train their employees on better ways to serve customers but much is yet to be done on employee motivation through a rewards system. Premised on these, this study analyzed the interplay between employee rewards systems and customer loyalty by investigating the relationship between the variables in federal tertiary hospitals in South-South, Nigeria.

## REVIEW OF RELATED LITERATURE

### Sociological baseline theories
This study on employee rewards system and customer loyalty of healthcare firms in South-South Nigeria is premised on the resource-based theory (Wernerfelt, 1984) which postulates that an organization's performance depends on its resource profile and further explained why some organizations outsmart others and distinctively maintain a prime place in competitive space (Winnie & Franciss, 2016; Didia & Idenedo, 2017); and the core competencies theory (Prahalad & Hamel,1990) which argued that companies already compete during the creation of competences and not only later in the market for products.

**Resource-Based Theory**: Resource-based theory was proposed by Wernerfelt (1984) specifically to ascertain an organization's resources that can be effectively and efficiently engaged to gain and sustain an edge over competing brands or companies (Maxwell et al., 2014) in an industry. The theory claimed that an organization's performance depends on its resource profile and further explained why some organizations outsmart others and distinctively maintain

a prime place in competitive space (Winnie & Franciss, 2016; Didia & Idenedo, 2017). The theory assumed that; there may be variations in the resource profile of organizations within an industry and the resources may not be moveable across organizations as such, the variations could last long (Barney, 1991).

Resources according to Maxwell et al. (2014), is "all assets, capabilities, organizational processes, firm attributes, information, knowledge, controlled by a firm that enables the firm to conceive of and implement strategies that bestow on the firm a competitive advantage". Consequently, for firms to achieve a sustainable competitive edge (Baker & Sinkula, 2005), they must possess key resources, capabilities, and attributes that are valuable, rare, difficult to imitate, and not substitutable which are in turn effectively deployed in the chosen markets (Barney, 1991). Employees (internal customers) of an organization are bestowed with the intangibles capabilities and distinctive attributes naturally and through education that are valuable, rare, difficult to imitate, and in most cases not replaceable which gives credence to the suitability of this theory for the current study.

The current study adapted resource-based theory as a baseline theory considering healthcare firms where the study is domiciled. The healthcare's employees (internal customers) help to create or implement strategies that enhance its efficiency and effectiveness in the marketplace, utilizing their capabilities in providing excellent customer service that in turn build on the healthcares' reputations. This study proposed that internal customer's motivation through an appropriate rewards system will increase the employee's job satisfaction and in turn enhance their service quality delivery to the external customers premise on the notion that, a satisfied and loyal customer will express loyalty through repeat patronage, resistance to switching and positive word of mouth (Butcher et al., 2001).

**The Core Competencies Theory**: The theory of core competencies was put forward by Prahalad and Hamel (1990); it argued that companies already compete during the creation of competencies and not only later in the market for products. The authors proposed that, instead of structuring a company around diversified business units and end-products, a company should be structured around a few core competencies (Lavina, 2014) because core competencies are extremely difficult to copy and can easily be leveraged to other markets. According to Prahalad and Hamel (1990) as cited in Lavina (2014), "core competencies allow a company to be flexible, respond to a rapidly evolving environment and be prepared for the future". Core competencies as proposed by Hirindu (2017), comprises of organizations' capabilities, resources, and competencies and indistinguishable core competencies pilot to gaining a competitive edge though, it is yet to be proven empirically. Internal customer motivation through an appropriate rewards system may be viewed as a healthcare firm's competencies because; it will lead to external customers' repeat patronage, resistance to switching, and positive word of mouth through service quality delivered by the employee as a result of being satisfied with their job.

**The Concept of Rewards System**

Research has it that, employees expected level of performance can only be attained effectively and efficiently if they sense a corresponding level of motivation (Bayon, 2013; Muhammad & Md, 2019) which cohere with Walters et al. (2019) assertion that, having the best strategy in place and proper organizational structural design is not an assurance for organizational effectiveness that, it can only be complimented when the employees are motivated to perform at

an optimum level. This implies that healthcare's goal of customer loyalty can be achieved and sustained if the employees are motivated with an appropriate reward system and also gives credence to why Ahmed and Rafiq (2000) considered strategic reward as an essential ingredient of Rewards System. Loyalty behaviors expressed by customers are functions of satisfaction derived from the services offered by satisfied employees through the Rewards System (Kukreja, 2017; Ali, 2016). As noted by Md and Dewan 2018), the imperative of internal marketing lies in motivating the employees and encouraging them to offer excellent services to customers to earn their repeat patronage and word-of-mouth marketing.

Reward system as stressed by Bratton and Gold (2003), encompasses monetary, non-monetary, and psychological payments offered by an employer in return for an employee's services. Malhotra et al. (2007) considered reward as the determinants of job commitment and satisfaction while Gross and Friedman (2004) it consists of compensation in form of base pay, short and long-term incentives, benefits and careers development, and career progression. The fundamental belief for the use of rewards according to Vera and Peter (2015) is to motivate or induce behaviors among employees which are considered beneficial for improved performance and retraining behaviors that are detrimental to the achievement of organizational goals and objectives. Consequently, the rewards system serves as an internal marketing ingredient of motivating desired behaviors (Eshun & Duah, 2011; Danish & Usman, 2010) from employees.

The Reward system is classified into three; intrinsic, extrinsic, and social reward (Ishtiaq & Sadia, 2017). According to Ishtiaq and Sadia (2017), an intrinsic reward system is taken care of from the job such as self-sufficiency, and career development opportunities. An extrinsic reward system is based on physical benefits that an organization gives to its employee in the form of salary, bonus, promotion, and incentives while the social reward is derived from interaction and relationships between the members of an organization. According to Serena et al. (2012), there are other mediums like working conditions, worker and employer relationship, training and development opportunities, job security, and the company's overall policies and procedures for rewarding employees but a motivation that comes with rewards is of utmost importance.

Similar to Ishtiaq and Sadia (2017), Serena et al. (2012) considered rewards systems to be either extrinsic or intrinsic, extrinsic rewards systems are tangible rewards and these rewards are external to the job or task performed by the employee. The external rewards system can be in terms of salary/ pay, incentives, bonuses, promotions, job security, etc while intrinsic rewards systems are intangible rewards or psychological rewards like appreciation, meeting the new challenges, positive and caring attitude from employer, and job rotation after attaining the goal (Serena et al., 2012).

There seems to be mix finding in the literature to determine which reward system is more effective to motivate employees to improve their service delivery quality to the customer. Serena et al. (2012) argue that once pay exceeds a subsistence level, intrinsic factors are stronger motivators, and staff motivation requires an intrinsic rewards system such as satisfaction at doing a good job and a sense of doing something worthwhile. Perry et al. (2006) and Srivastava (2001) asserted that financial rewards are not the most motivating factor to employees' job satisfaction and service quality delivery, based on their findings; financial results have a de-motivating effect among employees. In contrast, Usha (2014) found that "rewards and incentives are the most favorable factors for the motivation of an employee. Similarly, Ishtiaq and Sadia (2017) viewed

the reward system and employee satisfaction to be interrelated components because; the reward system improves the employee's job satisfaction and motivation level. This coheres with Danish and Usman's (2010) claims that reward system contributes to keeping employee's unbroken self-esteem level and passionate and happy employees could create happy customers (Bowenard, 2004).

**Concept of Customer Loyalty**

Khan (2013) citing Bagdonienė and Jakštaitė (2007) established that customer loyalty is the highest valuable result of marketing efforts, thus the improvement on customer loyalty has become an imperative focus of achievement for every organization. It is a win-win relationship for both the organization and the customer (Khan, 2013) if the organization can win the confidence of the customer through its product offering and service delivery quality. Customers exhibit their loyalty through certain behaviors (like resisting offers from the competition, sticking with the firm, recommending the organization and its offerings to others, and working with the organization when they experience a service breakdown) that benefit organizations in terms of reputation and improved revenue (AchieveGlobal, 2008). Besides, the organization also benefits in terms of lower price sensitivity (Khan, 2013) and reduced expenditure on attracting new customers. This gives credence to why customer loyalty has been one of the most recurrent topics of investigation (Didia & Idenedo, 2017; Adepoju & Suraju 2012) with regards to how firms can improve their performance to gain a sustainable prime place in a competitive space. This is also reflected in business mechanisms such as Rewards System, as managers increasingly recognize the imperative of customer loyalty (Didia & Idenedo, 2017).

Customer loyalty is not won by chance; research has it that, it is a function of satisfying customer's expectations because customers compare their subjective perceptions after purchasing a product/service with their expectations before the purchase decision (AchieveGlobal, 2008; Kotler, Keller, 2008; Khan, 2013). This comparison according to Kotler and Keller (2008) leads to a situation of satisfaction if satisfaction exceeds expectations (customer enthusiasm). Though, the nexus between customer satisfaction and its loyalty is not unswervingly comparative because the evaluation of satisfaction relative to the performance of the service provider or product offered differs with customers (Kotler & Keller, 2008). This implied that customers can be satisfied but for different reasons.

Customer loyalty as asserted by Bruhn (2001) is part of a cause-effect sequence that involves processes from the initial contact with the client to the economic success of the organization. According to Bruhn (2001), the stages begin with the customer's first contact with the tendered by the purchase of a product or service, compare previous expectations with the product or service, and assess the level of satisfaction. If the customer's assessment is favorable or customer expectations have been exceeded, customer loyalty will be triggered and that will build his/her trust for the organization's offerings and wiliness to patronize the same product/service in the future. The mentioned sequences transpire into loyalty when this purchasing conviction becomes repeated purchase and the product or service is being recommended to other potential customers and end when it has resulted in the economic success of the enterprise (Bruhn, 2001).

Similarly, Daffy (2009) stressed that customer loyalty does not result from strategies implemented by organizations or customer clubs rather through a good understanding of customers' needs and behavior. As such, he defined loyalty as a physical and emotional commitment given by customers in exchange for meeting their expectations. Budică and Barbu (2010) explained the emotion mentioned in Daffy's (2009) definition of loyalty as the positive or negative feelings brought to mind by an object or idea.

Customer loyalty is customers' predisposition to prefer one brand and its products over those of the competitors, based on the satisfaction they derive from using the brand's products (Didia & Idenedo, 2017) or other psychological, economic, or social reasons. Customer loyalty encourages consumers to shop more frequently, consistently, and often inform increase in volume or value of purchases (Sima & Elham, 2015). Customer loyalty is the willingness of customers to purchase the company's products, instead of those of competing brands; and maintain a profitable relationship with the preferred brand (Kendal, 2012; Mohammad et al., 2012; Inamullah, 2012). This implies that there must be something attractive in a brand that motivates a customer to be consistent with the purchase of the brand's product over time without shifting to competing brands (Mohammad et al., 2012). Loyalty is, therefore, the result of customers' past positive experiences with the brand. Customers return to a company for further business based on these positive experiences; regardless of whether the firm has the best product, price, or service delivery (Singh & Khan, 2012; Ghavami & Olyaei, 2006).

Apart from the result of customers' past positive experiences with the brand as asserted by Singh and Khan (2012) and Ghavami and Olyaei (2006) as a possible function of customer loyalty, Daffy (2009) established an equation (Loyalty = Satisfaction + Affinity + Involvement) to explain loyalty. Daffy (2009) explained further that, to gain customer loyalty, an organization should make sure its products or services meet and exceed customer expectations. By involvement, Daffy implies a relationship between the organization and the customer that will enhance their decision quality based on feedback from customers while affinity occurs when there is satisfaction and involvement. Daffy's loyalty equation was the premise on the notion that an increase in customer loyalty is possible if all resources and processes are focused on customers' needs and expectations and involving them in the process of discovering their needs and desires makes them feel appreciated (Kotler & Keller, 2009).

Customer loyalty is behavioral and attitudinal (Inamullah, 2012) and often a combination of (Ebenuwa & Otite, 2019 citing Bowen & Chen, 2001) both known as composite loyalty for which each broad measure has sub-measures. Customers exhibit behavioral loyalty by willingly repeating patronage and maintaining relationships with the organization, the attitudinal loyalty is expressed through an exhibition of positive feelings about the organization and its offering and voluntarily telling others about the organization and its offerings (Ebenuwa & Otite, 2019) while the composite measures capture elements of both behavioral and attitudinal measures (Bowen & Chen, 2001). Butcher et al. (2001) identify repeat purchase, positive word-of-mouth, resistance to switching, and brand preference as dimensions of loyalty that cut across the behavioral, attitudinal, and composite dimensions of loyalty. This study thus adapts resistance to switching, repeat patronage, and positive word of mouth as measures of customer loyalty.

**Resistance to Switching**: Resistance to switching is considered as customers' attitudinal expression of loyalty to an organization's brand or services (Butcher et al., 2001; Cronin & Taylor, 1992). Conventionally, customers tend to switch amongst similar brands or services when their perceptions do not match with their expectations in terms of quality, availability, and the price tag for a service (Sirius, 2009). Besides, attractive promotional offers of other brands such as attractive gifts or discounts could also encourage trying another brand (Shahpar, 2014). Conversely, Reichheld (1996) as cited in Rahim et al. (2012) posits that unsatisfied customers may choose not to switch, because they do not expect to receive better service elsewhere or if the switching cost is high and satisfied customers may seek for competitors because they believe they might receive better service elsewhere. This implies that there is another factor that triggered resistance to switching behavior other than satisfaction with services experienced as compared with expectations. Given that, some marketing scholars (Rahim et al., 2012; Lopez et al., 2008; Watson et al., 2002) considered customers resistance to switching not just an indication of being satisfied with an organizations' brand or services but also a function of the switching decision which includes; the cost of the decision, the perceived benefits of any such decision, and a customer's relative assessment of other factors. The switching costs according to Nicolas et al. (2018) include financial and search effort costs. These switching costs are barriers to switching and they act as factors that make it difficult and costly for consumers to change service providers (Nicolas et al., 2018; Jones et al., 2000).

Customers switching amongst similar brands or services could be triggered by certain events of times and market disruptions. Son et al. (2010) defined market disruptions as major events occurring in the market that threaten customers' loyalty or relationship with a brand. According to Son et al. (2010), the events are not individual firm service failures rather; they include aggressive competitors' sales promotion, industry crises, product recalls, negative publicity, and disruptive innovations by competitors that can influence the relative standing of brands in the eyes of customers. As such, customer resistance to switching even at invents of time and market disruptions are an exhibition of loyalty to an organizations' brand or services.

**Repeat Patronage**: Repeat patronage is a behavioral (Butcher et al., 2001) demonstration of loyalty by customers through repetitive patronage of a preferred brand or service amidst competitors as a result of being consistently satisfied psychologically, economically, socially, emotionally, physically, and intellectually (Nwulu & Asiegbu, 2015) with the brand or service experienced. Considering the healthcare firms, patients will usually repeat patronage of healthcare services when their service experience exceeds their expectations. Patients would not mind resisting events of times and market disruptions if their service experience with a particular healthcare firm is consistently exceeding their expectation of service economically, psychologically, and physically.

As described by Kumar (2016) cited in Nwadike et al. (2020), repeat patronage is behavior in which customers frequently patronize a product and service of a particular company without considering the products and services offered by other competing organizations. This coheres with Panda's (2013) assertion that, repeat patronage is a behavior whereby consumers repeatedly purchase their needs from a particular company even though there are other companies rendering

the same services. Similarly, Curtis et al. (2011) defined repeat patronage as a consumer's actual behavior resulting in the purchase of the same product or service on more than one occasion. Nwulu and Asiegbu (2015) considered repeat patronage as a measure of loyalty to a brand by consumers. Based on their analysis, higher repeat patronage value means a well retained and satisfied customer and thus recommend service providers to take some actions to ensure repeat patronage of their services by listening to customer comments, suggestions, feedback, complaints, about the services they are offering and providing value-adding services to the customer experience.

**Word-of-Mouth**: Delighted and loyal customers consciously and unconsciously exhibit loyalty behaviourally by willingly repeating patronage and maintaining relationships with the organization and attitudinally through an exhibition of positive feelings about the organization and its offering and voluntarily telling others about the organization and its offerings (Ebenuwa & Otite, 2019). Positive word-of-mouth is indirect marketing through a satisfied and loyal customer by making strong recommendations and praises about a brand or its products to potential consumers (Susanta et al., 2013) and because potential customers see information from friends or even strangers as more unbiased and reliable than those of an economic entity (Brown & Peter, 1987), it is thus acknowledged by academics and business practitioners as one of the reasons customer loyalty is believed to be invaluable (Didia & Idenedo, 2017; Peter et al., 2013). Susanta et al. (2013) as cited in Didia and Idenedo (2017) dramatized the imperative of positive word-of-mouth by stating that, increasing loyalty is achieved by maintaining customers while an increase in market share is achieved through positive word-of-mouth.

Empirical literature gave credence that, positive word-of-mouth enhances companies' ability to acquire new customers and maintain the loyalty of existing ones (Alhulail et al., 2018; Peter et al., 2013) hence; it is considered as one of the strongest marketing techniques. Muhammed and Peter (2019) in a study on word of mouth communication: a mediator of relationship marketing and customer loyalty found a significant positive association between the word of mouth and customer loyalty. Peter et al. (2013) established that positive word-of-mouth has a direct association with customers' repeated purchase behavior which indicates consumer loyalty.

Similarly, Brown et al. (2005) study on word-of-mouth facets in eateries established that there is a substantial link between word-of-mouth and customer loyalty and added that the effect of positive or negative word-of-mouth on customer loyalty differs significantly from industry to industry; while Liyander and Stradvick (1995) advocated the imperative of positive word-of-mouth for brand success because it removes qualms and convinces potential customers. Word-of-mouth is said to (Didia & Idenedo, 2017) serve as a switching barrier by influencing customer excitement and blocking customers from breaking the connection even when inconsistencies are observed in the firm's service delivery and boosts customer confidence in the company, its services and makes customers feel they made the right choice (Muhammed & Peter, 2019).

Premised on the few cited empirical test postulation on the link between word-of-mouth and customer loyalty, it is deducible that, adequately satisfied customers will likely talk about their experience with the brand and possibly recommend it to friends and family which cohere with Mohammad et al. (2013) assertion that, if customers are satisfied, they will increase the volume

or value of their purchases, and also tell others about their pleasurable experience with the brand. Since the most valuable asset of any company is its customer-ship (Ateke & Harcourt, 2017), and the survival of any business depends on customer satisfaction and loyalty, it will be an idea for healthcare companies in Nigeria specifically federal tertiary healthcare in South-South Nigeria to improve on their service delivery quality that will bring about positive customer experience, gain their positive word-of-mouth marketing and other loyalty behavior and attitudes.

**Contact Employee Reward System and Customers Loyalty**
A proper reward system in healthcare firms is expected to elicit customers loyalty based on the extant literature reviewed. For instance, Walters et al. (2019) investigated the effect of a reward system on employee performance in selected manufacturing firms in the Littoral Region of Cameroon. A sample of 538 employees was drawn from a population of 5146 employees of ten selected manufacturing firms within the Cameroon Littoral Region. The findings revealed that the predictor variables significantly relate to the study's criterion variables. The study concluded that there is a positive link between reward systems and employee performance. Based on the findings, it was recommended amongst others that reward systems for manufacturing firms should be designed such that employees are entitled to percentages of profit earned by the firm as a means of promoting productivity and group cohesiveness amongst employees.

Ishtiaq and Sadia (2017) examined the relationship between the rewards system and employee performance of private banks in Pakistan. A sample of 92 respondents in three districts (Lodhran, Vehari, Khanewal) of south Punjab, Pakistan was taken from HBL, ABL, MCB, UBL, and BOP banks. A structured Likert Scale format questionnaire was used for data collection. Regression was used to analyze the collected data. The result of this study reveals that there is the presence of a relationship between intrinsic and extrinsic rewards on employee performance and has a significant effect of intrinsic and extrinsic rewards difference on employee performance of the banking sector in Pakistan.

Salah (2016) examined the influence of reward types (extrinsic, intrinsic, social, and rewards mix) on employee performance. Data was collected from 250 sampled respondents of the population of 513 people working for Unified Mining Companies located in the southern part of Jordan. The findings indicated that there is a statistically significant relationship between rewards types and employees performance. The study concluded that management should have a deep sense of commitment towards the issue of rewarding employees if performance levels are to be enhanced.

Vera and Peter (2015) explored the impact of reward and recognition on job satisfaction and motivation. The study employed a descriptive survey design in gathering data from 157 academic staff, from a total number of seven private tertiary institutions which were selected through stratified sampling. Respondents from these seven private tertiary institutions were conveniently and purposively selected. The study observed that rewards had a positive impact on work motivation but no significant relationship existed between reward and job satisfaction. Again, both academic staff and university administrators perceived rewards as fair.

Nnaji-Ihedinmah and Egbunike (2015) determined the relationship between the rewards system and employee performance. A questionnaire designed in the Likert-scale format was administered to employees of commercial banks in Awka Metropolis. The data were analyzed with regression technique and two-way ANOVA. The findings revealed that there is a relationship between rewards and employee performance. Also, there is a significant difference in the effects of intrinsic and extrinsic rewards on employee performance.

Serena et al. (2012) examined the relationship between rewards and employee performance as well identified the relationship between extrinsic and intrinsic rewards. Data were collected from 180 sampled employees of the commercial bank. The result indicates that there is a statistically significant relationship between all of the independent variables with dependent variables employee work performance and all the independent variables that have a positive influence on employee work performance.

Based on the above extant literature, the current study hypothesized that:
Ho$_1$: Contact employees reward system and customers resistance to switching have no significant relationship.
Ho$_2$: Contact employees reward system and customers repeat patronage has no significant association.
Ho$_3$: Contact employees reward system and customers word of mouth have no significant association.

The operational conceptual framework below exhibits the assumption this study is built on.
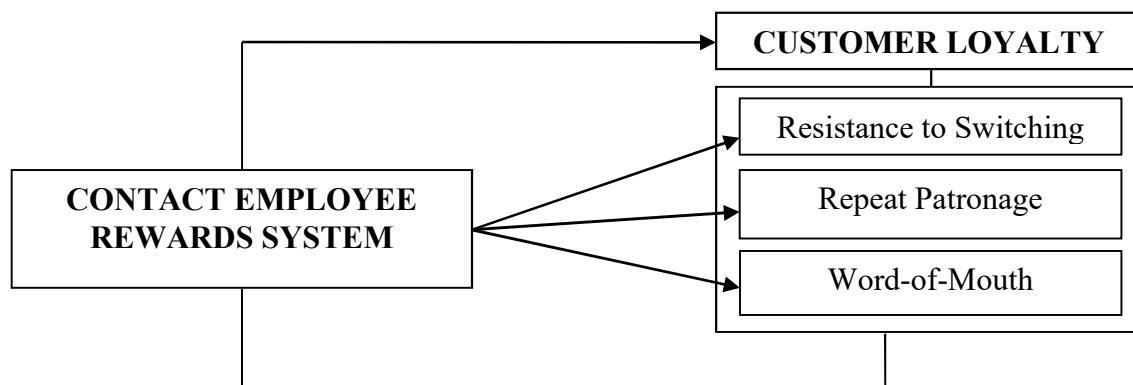


**Figure 1: Operational Conceptual Framework of Contact Employee Rewards System and Customers Loyalty**
Source: The study the measures were adapted from Butcher *et al*. (2001).

**METHODOLOGY**
This study aimed to examine the correlation between the contact employee rewards system and customer loyalty of healthcare firms in South-South, Nigeria. The study adopted an explanatory

research design. The population of this study comprised federal tertiary healthcare providers specifically in South-South, Nigeria, and all in-patients admitted into each of the teaching hospitals. This study was directed at the teaching hospitals because they provide the widest admittance to patients with the completeness of all cadres of healthcare workers. Based on information obtained from the Federal Ministry of Health, December 2020, there are currently four (4) approved university-based federal tertiary healthcare providers in South-South, Nigeria. Namely: University of Port Harcourt Teaching Hospital with staff strength of 2500 and 800 beds space for patients. This information was obtained from info@upth.com; the University of Benin Teaching Hospital has a staff strength of 3,840 and 850 beds space for patients. This information was obtained from info@ubth.com, University of Calabar Teaching Hospital with staff strength of 2,946 and 415 beds space for patients, and this information was obtained from info@ucth.com and University of Uyo Teaching Hospital with staff strength of 2000 and 500-bed spaces for patients and this information was obtained from info@uuth.com. In determining the sample size for this study, a census was taken for the current study. Eighteen (18) different contact employees and five (5) in-patients of each of the federal university teaching hospitals in South-South, Nigeria formed the study's sample unit, thereby making a total of ninety-eight (98) respondents that participated in this study. The table below exhibits the breakdown of the sampled respondents.

**Table 1: Categories of Respondents**

| S/N | Categories Of Staff Sampled | UPTH | UCTH | UBTH | UUTH |
|-----|------------------------------|------|------|------|------|
| 1 | Nurse | 2 | 2 | 2 | 2 |
| 2 | Administration | 2 | 2 | 2 | 2 |
| 3 | Doctor | 2 | 2 | 2 | 2 |
| 4 | Lab scientist | 2 | 2 | 2 | 2 |
| 5 | Pharmacist | 2 | 2 | 2 | 2 |
| 6 | Health assistant | 2 | 2 | 2 | 2 |
| 7 | Paramedic | 2 | 2 | 2 | 2 |
| 8 | Physiotherapy | 2 | 2 | 2 | 2 |
| 9 | Optometry | 2 | 2 | 2 | 2 |
| | **Total Sampled** | **18 Staff** | **18 Staff** | **18 Staff** | **18 Staff** |

| S/N | Patients Sampled | UPTH | UCTH | UBTH | UUTH |
|-----|------------------|------|------|------|------|
| 1 | In-Patients | 5 | 5 | 5 | 5 |
| | **Total Sampled** | **5 In-Patients** | **5 In-Patients** | **5 In-Patients** | **5 In-Patients** |

These categories of employees were used for this study because they constitute service contacts of each of the federal universities teaching hospitals in South-South, Nigeria. In healthcare, patients often interact with contact employees (nurse, administration, doctor, lab scientist, pharmacist, health assistant, paramedic, physiotherapy, optometry, etc.) whose role is an ingredient of differentiation. Contact employees could influence service quality perception of the patient through their attitude and service delivery while five in-patients were considered enough to provide the necessary information needed for the study.

The questionnaire was utilized as the instrument of primary data collection. Respondents were required to tick from 1-5 on a Likert scale, where 1= strongly disagree; 2= disagree; 3= neutral; 4= agree; 5= strongly agree. To justify the study instrument, a comprehensive reliability test was conducted, with a threshold of 0.7 set by Nunnally (1978); while the opinion of scholars and practitioners with relevant experience on the study constructs was used to validate the instrument. Table 1 below displays the summary of the test of reliability.

**Table 2: Result of Reliability Analysis**

| Variables | Dimensions/Measures | No. Items | Cronbach's Alpha |
|---|---|---|---|
| **Rewards System** | Rewards System | 5 | 0.967 |
| | Resistance to Switching | 5 | 0.844 |
| **Customers Loyalty** | Repeat Patronage | 5 | 0.842 |
| | Word of Mouth | 5 | 0.935 |

Source:  SPSS Output of Data Analysis on Rewards System and Customers Loyalty (2020).

**DATA ANALYSIS AND RESULT**

**Table 3: Questionnaire Analysis**

| Numbers | Questionnaire | Percent |
|---|---|---|
| No. Sent out | 98 | 100.0 |
| No. Returned | 85 | 87.0 |
| No. Not Returned | 13 | 13.0 |

Source: Field Survey Data 2020

Table 3 shows that a total of 98 copies of the questionnaire were distributed, out of which 85 representing (87%) were retrieved while 13 representing (13%) were not retrieved. However, 85 representing (85%) of the retrieved questionnaire were useful. The 13 (13%) of the not retrieved questionnaire were not correctly filled and were consequently discarded.

Having analyzed the questionnaire, the various hypotheses proposed for this study were subjected to statistical tests using the Spearman's Rank Order Correlation Co-Efficient Statistical Tool.

**Table 4: Description of the Degree of Association between Variables**

| Correlation Coefficient (r) | Description/Interpretation |
|---|---|
| ± 0.80 – 1.0 | Very Strong |
| ± 0.60 – 0.79 | Strong |
| ± 0.40 – 0.59 | Moderate |
| ± 0.20 – 0.39 | Weak |
| ± 0.00 – 0.19 | Very Weak |

Source: SPSS Output of Data Analysis on Rewards System and Customers Loyalty (2020).

The positive (+) sign in the value of r indicates a direct/positive relationship while the negative (-) sign in value of r indicates an indirect/negative or inverse relationship. Therefore, the sign of the r-value explains the direction of association or nature of the relationship between the variables.

Decision Rule

Reject the null hypothesis (H0) if PV < 0.05 for the 2-tailed test and conclude that a significant relationship exists.

**Table 5: Correlation Analysis on Rewards System and Resistance to Switching**

**Correlations**

| | | | Rewards System | Resistance to Switching |
|---|---|---|---|---|
| Spearman's rho | Rewards System | Correlation Coefficient | 1.000 | .718[**] |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 85 | 85 |
| | Resistance to Switching | Correlation Coefficient | .718[**] | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 85 | 85 |

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Output of Data Analysis on Contact Employee Rewards System and Customers Loyalty (2020)

Table 5 explains that Spearman's correlation coefficient (r) = 0.718**, this value is high; implying that a strong relationship exists rewards system and resistance to switching. The positive sign of the correlation coefficient connotes positive relationships that exist between variables, indicating that, an increase in customers (patients) resistance to switching is associated with the level of satisfaction derived by the service contacts of the studied healthcare provider firms through the firms' rewards system. The probability value is (0.000) < (0.05) level of significance; hence the researcher rejects the null hypothesis and concludes that, contact employees' reward system and customers' resistance to switching significantly relate.

**Table 6: Correlation Analysis on Rewards System and Repeat Patronage**

**Correlations**

| | | | Rewards System | Repeat Patronage |
|---|---|---|---|---|
| Spearman's rho | Rewards System | Correlation Coefficient | 1.000 | .656[**] |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 85 | 85 |
| | Repeat Patronage | Correlation Coefficient | .656[**] | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 85 | 85 |

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Output of Data Analysis on Rewards System and Customers Loyalty (2020)

Table 6 above shows that Spearman's correlation coefficient (r) = 0.656**, this value is high, implies that a strong relationship exists rewards system and repeat patronage. The positive sign of the correlation coefficient denotes positive relationships that exist between the variables which also mean that an increase in repeat patronage of customers is associated with the level of satisfaction derived by the service contacts of the studied healthcare provider firms through the firms' contact employee rewards system. The probability value is (0.000) < (0.05) level of significance; hence the researcher rejects the null hypothesis and concludes that there is a significant relationship between contact employee rewards system and repeat patronage.

**Table 7: Correlation Analysis on Rewards System and Word of Mouth**

**Correlations**

|  |  |  | Rewards System | Word of Mouth |
|---|---|---|---|---|
| Spearman's rho | Rewards System | Correlation Coefficient | 1.000 | .724** |
|  |  | Sig. (2-tailed) | . | .000 |
|  |  | N | 85 | 85 |
|  | Word of Mouth | Correlation Coefficient | .724** | 1.000 |
|  |  | Sig. (2-tailed) | .000 | . |
|  |  | N | 85 | 85 |

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Output of Data Analysis on Rewards System and Customers Loyalty (2020)

Table 7 explains that Spearman's correlation coefficient (r) = 0.724**, this value is high, implies that a strong relationship exists between contact employee rewards system and word of mouth. The positive sign of the correlation coefficient signified that a positive relationship exists between variables which also mean that, an increase in customers' positive word of mouth is a function of the level of satisfaction derived by the service contacts of the studied healthcare provider firms through the firms' contact employees' rewards system. The probability value is (0.000) < (0.05) level of significance; hence the researcher rejects the null hypothesis and concludes that there is a significant relationship between contact employees' rewards system and customers' word of mouth.

**Discussion of Findings**

**Strong Positive Relationship between Contact Employee Rewards System and Customers Loyalty**

The tested hypotheses on the link between contact employees reward system and measures of customers' loyalty show that contact employees reward system and customers resistances significantly relate. Contact employees reward system and customers repeat patronages significantly relate. Contact employees reward system and customers word of mouth significantly relate. As demonstrated in Table 5, Spearman's correlation coefficient (r) = 0.718**, this value is high; implying that a strong relationship exists rewards system and

resistance to switching. In Table 6, Spearman's correlation coefficient (r) = 0.656**, this value is high, implies that a strong relationship exists contact employee rewards system and repeat patronage. Also, in Table 7 Spearman's correlation coefficient (r) = 0.724**, this value is high, implying that a strong relationship exists between contact employee rewards system and word of mouth. These findings concur with previous studies' findings, for instance, Walters, Bamidele et al. (2019) investigated the effect of reward systems on employee performance in selected manufacturing firms in the Littoral Region of Cameroon. The findings revealed that the predictor variables significantly relate to the study's criterion variables. Ishtiaq and Sadia (2017) examined the relationship between the rewards system and employee performance of private banks in Pakistan. The result of this study reveals that there is the presence of a relationship between intrinsic and extrinsic rewards on employee performance and has a significant effect of intrinsic and extrinsic rewards difference on employee performance of the banking sector in Pakistan. Salah (2016) examined the influence of reward types (extrinsic, intrinsic, social, and rewards mix) on employee performance. The findings indicated that there is a statistically significant relationship between rewards types and employees performance. Vera and Peter (2015) explored the impact of reward and recognition on job satisfaction and motivation. The study observed that rewards had a positive impact on work motivation but no significant relationship existed between reward and job satisfaction. Again, both academic staff and university administrators perceived rewards as fair. Nnaji-Ihedinmah and Egbunike (2015) determined the relationship between the rewards system and employee performance. The findings revealed that there is a relationship between rewards and employee performance. Also, there is a significant difference in the effects of intrinsic and extrinsic rewards on employee performance. Also, Serena et al. (2012) examined the relationship between rewards and employee performance as well identified the relationship between extrinsic and intrinsic rewards. The result indicates that there is a statistically significant relationship between all of the independent variables with dependent variables employee work performance and all the independent variables that have a positive influence on employee work performance.

## CONCLUSION(S) AND RECOMMENDATIONS

Derived from the findings, the study, therefore, concludes that contact employee rewards system significantly relates to customers loyalty and customers loyalty expressed as resistance to switching, repeat patronage and word of mouth is a function of contact employee's rewards system of the healthcare providers. As such, the study recommends that the healthcare firms that seek to improve customers' loyalty should consider an attractive contact employee rewards system as an essential mechanism and the healthcare firms should consider appropriate contact employee rewards system as an imperative strategy to improve on customers' resistance to switching behavior, repeat patronage and positive word of mouth.

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# Effect of Sales Promotion on Customer Perception of Mobile Telecommunication Network Products in Maiduguri Metropolis, Borno State, Nigeria

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***Abstract:*** *Past studies have observed that sales promotion influences organisational performance. However, some aspect of Sales promotion such as contest, premium, and price deals in relation to customer perception have received little scholarly attention. This study specifically examined the effect of sales promotion on customer perception of Mobile Telecommunication Network (MTN) Product in Maiduguri Metropolis. A sample of three hundred and ninety-nine registered customers of MTN was obtained from the total population of one hundred and eighty-nine thousand eight hundred and fourteen registered customers of MTN in Maiduguri Metropolis as at 2021. Survey method was used to obtain data from the customers of Mobile Telecommunication Network (MTN) within Maiduguri Metropolis. Multiple regression analysis was used to analyse the data obtained from the customers of MTN within Maiduguri Metropolis with the aid of statistical package for social sciences version 2.0. The study found that contest, premium and price deals have a significant effect on customer perception of MTN products. In particular, premium has a significant positive (P-value of 0.019) effect on customer perception of MTN products. So also contest and price, with a P-value of 0.000 which is less than p<0.05. The study concluded that all the three aspects of promotion (contest, premium and price) is a significant effect of deal on customer perception of MTN products in Maiduguri Metropolis. The study recommended that mobile telecommunication network should try as much as possible to organize contest on regular intervals in order to influence customer perception of their product in Maiduguri Metropolis.*

***Keywords:*** *Sales, Promotion, Customer, Perception, Multiple Regression*

## Introduction

Marketing exist to finding and satisfying the need of existing and prospective customers in a society. These needs are fulfilled by the production of specific product and service. The pricing, promotion and distribution of these products and services determine who will be willing and able to buy them. Thus, marketing is the process of communicating the value of a product or service (Azubuike, 2014). Some people see Marketing as the art of selling products (Wamoni, 2011); however, selling is only a small fraction of marketing. It is a general believe that marketing includes all the various activities involved in production, pricing, distribution and promotion of products and services. Promotion is an important component of marketing; it has got a very significant impact on the demand managing activity of the company. The key components of promotion includes personal selling, direct marketing, advertising, sales promotion, and public relations. Promotion objectives are so vital because they determine the role of each components of the promotion mix in the marketing objectives of the organisation.

Promotion is part of integrated marketing communication which recognizes the advantages of having a complete plan to find better ways of understanding and connecting with consumers (Eric Quarshie, 2010).

Organisations have to test various strategies to find the one suitable for them in increasing their sales and market share. Sales promotion is an important aspect of promotion strategies used by organizations. Sales promotion refers to communication strategies designed to act as a direct inducement, an added value, or incentive to customers. (Azubuike,2014), In many organizations sales promotion efforts are designed in such a way that it always compliments all other promotional activities. It therefore comprises a wide variety of tactical promotion tools of a short-term incentive nature designed to stimulate earlier and a stronger target market response (Azubuike,2014). Therefore, this involves some type of inducement that provides an extra incentive to buy, which is usually the key element in a promotional programme, it may be a coupon or price reduction, the opportunity to enter a contest or sweep stakes, a money back refund or rebate, or an extra amount of a product.

To ensure that there is increase patronage of customers, Mobile Telecommunication industries employed the use of sales promotion tools to the point that many consumers switched among the network providers within the industry as a result of the extra value they get. sales promotion offers attempt to add some value to the product or service.

Research on promotional tools is certainly vital to recognise the most influencing promotion tools for competition in the telecommunication industry. With the help of this information, the marketer and retailers could well plan their sales promotion activities towards increasing market share. Marketers will be conscious of the consumer buying behavior, so that they can make use of the right and the most successful promotion techniques to catch the attention of the customer. Although the usual promotion tool includes samples, buy-one-get-one-free, Coupons, in-pack premiums, price offs and so on, but this study will discuss the effect of sweepstakes, contest, price deals and premium on the consumer perception. Therefore the purpose of this study is to examine "the effect of sales promotion tools on consumer perception of Mobile Telecommunication Network Products.

Customers serve as the life blood of every organisation and as a result, the existence and growth of every firm depends on its ability to attract and retain customers. In this regard, marketers within competitive and saturated industry like that of the telecommunication industry often employ sales promotion as a possible tool that can trigger demand for their goods and services. This is in view of the fact that customers in the industry are perceived to be sensitive to price changes and other incentives they consider 'free'. Base on this, the MTN network utilizes sales promotion to a great extent with the intention of capturing and retaining its consumers.

Many studies reported the effect of sales promotion in a variety of ways. Some see it as mere burden, raising the cost of operation and products. Some even see it as helping by positioning of products, while others see it as competitive strength to gain, maintain or sustain market share. On this note scholars like Zubairu, Idaomi and Azubuike (2014), Wamoni (2011), Quarshie (2010), Oyedapo, Akinlabi and Sufian (2012) have indeed examined the link between sales promotion and volume, Sales performance, and Revenue Generation respectively. However the link

between sales promotion tools and customers perception of Mobile Telecommunication Network (MTN) Product has not been widely documented in the available literature, leaving a wide research gap. As reasonable as these specifics are, it essentially lacks empirical documentation; particularly the literature on the perception of customers on MTN Products in Borno State is relatively silent.

Hence, the researcher is intrigued to find out the effectiveness of sales promotion on customers perception of MTN products.

The main objective of the study is to assess the effect of sales promotion on customer perception of Mobile Telecommunication Network products in Maiduguri Metropolis. The paper specifically intend to examine the effect of Contest on customer perception of Mobile Telecommunication Network Products, the effect of premium on customer perception of Mobile Telecommunication Network Products and the effect of price deals on customer perception of Mobile Telecommunication Network Products in Maiduguri Metropolis.

**Review of related Literature**
**Conceptual Issues**
**Sales Promotion**
Increased competition in the telecom industry has made prices of products and services more transparent and has also increased the use of different promotional mix to inform their loyal consumers and also help entice more consumers to their network. The situation has made promotion in the telecom industry a normal activity for these companies in the industry if they want to maintain their market share. This was however confirmed with what Peattie and Peattie (1995) claimed about promotions becoming so common that firms are almost obliged to follow or risk losing market share.

Sales promotion is therefore a direct inducement that offers an extra value or incentive for the product to the sales force, distributors or the ultimate consumer with the primary objective of creating an immediate sale (Simon & Mark, 2005). Sales promotion can best be described as a specific, usually short term promotion tool that is over and above what would normally be provided to the customer (e.g. buy one get one free). Sales promotion is a way of attracting new customers. Sales promotion when implemented effectively often results in an increase in short term sales figure.

**Perception**
According to Mowen & Minor, (2006) Perception is the process through which individuals are exposed to information, attend to the information, and comprehend the information. Similarly, Harrell, (1986) described Perception as a process whereby an individual receives stimuli, selects, organizes and interprets the message.

Perception is one of the important psychological factors which influence the consumer's behaviour. In simple words perception can be described as 'how we see things around us'. Every individual every now and then are receiving messages and information through our five sensing organs, these information and messages are called stimuli (Williams, 1982). Perception varies from individual to individual each individual selects, recognise, organise, interprets these stimuli

in his own way based on his values and expectations so the perception varies from person to person (Williams,1982). According to Bridgeman and Hoover, (2008) Perception is the way information is picked up to influence behavior while Neslin (1995) added that it is unique to individuals.

**Relationship between Sales Promotion and Customer Perception**
According to Foxall (1980), Sales Promotion and Perception are linked together by marketing communication, hence, Perception is always an after effect of promotional communication.

The effects of sales promotion can be evaluated by observing the Customer's response or perception towards the marketing activity. Customer's response to marketing activity is a stage wise process like Exposure, attention, perception; learning, attitude, action and post purchase these sequences cannot be necessarily followed by all consumers in all situations, it varies depending on the situations. AIDA (attention-interest-desire-action) this is another sequential model (Tosdal, 1925: St Elmo Lewis, Circa 1900). Hierarchy of effects model. This model includes the following stages: awareness, knowledge, liking, preference, conviction, and purchase, there are also stages starts from awareness to adoption (Robertson, 1971).

A well established, although somewhat simplistic model used to describe the role of advertising has been used by Peattie and Peattie (1995) and Gupta et al. (1997) to describe the impact of sales promotion. Both set of authors relate sales promotional activity to the attention, interest, desire and action (AIDA) model of marketing communications. They suggest that promotions work effectively against each stage of the somewhat simplistic model. Peattie and Peattie (1995) assert that sales promotions are specifically designed to be attention grabbing. They are designed to help products stand out in today's competitive retail environment.

**Sales Promotion on Customers' Perception**
Due to the competitive world market, retailers have implemented a variety of sales promotion techniques and advertisements in order to stand out among competitors. However, De Pechpeyrou, & Odou, (2012) stated that over time, consumers have started to become sensitive and skeptical towards the stimuli from sales promotion. Simonson (1994) suggested that some consumers might feel embarrassed when purchasing a product on sales promotion. In others words, inappropriate sales promotion may lead to the opposite desired outcome, such as a decrease in the purchasing behavior of the consumers.

On the other hand, past research, indicated that the brand with sales promotion is more likely to increase the consumers' preferences and purchasing than the brand without sales promotion (Schultz & Block, 2014). Furthermore, a rational consumer is more likely to make a comparison between the price and the quality of the products before making the purchasing (Raghubir & Corfman, 1995). Thus, According to Chandon, (2000) consumers are more likely to purchase the high-equity brand during sales promotion. This is because saving money has always been the crucial factor in attracting the consumer to purchase the product at the specific moment.

**Effect of Price Deals on Consumer Perception**
Price offs: Service products require a systematic scheme of setting the price off in order to avert from possible negative consequences in the long run, for example brand switching. Shi, Cheung, and Prendergast (2005) opined that price discounts have a short term effect on sales promotion which can be elaborated by a "sale bump", both brand-loyal and non-loyal buyers responds to a discount promotion.

Bonus packs can also be an effective defensive maneuver against a competitor's promotion or introduction of a new brand. By loading current users with large amounts of its product, a marketer can often remove these consumers from the market and make them less susceptible to a competitor's promotional efforts. Bonus packs may result in larger purchase orders and favorable display space in the store if relationships with retailers are good this eventually increase the sales turnover of the company (Jha-Dang & Banerjee, 2005)

**Empirical Studies**

Gorji, M. and Siami, S. (2020), examine the impact of sales promotion display on customer intentions to purchase and repurchase, focusing on the moderating roles of perceived product quality and price fairness. This study employs a descriptive, quantitative, non-experimental research method using a cross-sectional design with a self-administered questionnaire.

The results indicated that sales promotion display significantly affects the purchase and repurchase intentions. The findings also highlight the moderating role of perceived product quality and price fairness on customer shopping intentions. Lastly, it is confirmed that the joint moderating effects of perceived product quality and price fairness in the relationship between sales promotion display, purchase and repurchase intentions are significant.

Ibrahim O. B. (2020) examines the effect of sales promotion and relationship marketing on customers' retention in the telecommunication industry in Accra, Ghana. Convenience sampling technique was used to gather data form a sample of 150 customers of telecommunication firms in Accra, Ghana, using structured interview guide and data analyses carried out using SPSS version 22. The findings of the study showed bonuses as the most favourably, sweepstakes and contest as favorable, price discounts as less favorable and sample as the least favorable sales promotion method(s) used by telecommunication firms in Accra, Ghana, to retain customers. Also, the study revealed a moderate but significant relationship between sales promotion and customers' retention. Based on these findings, it was recommended that the use of bonuses, sweepstakes and contest as methods of sales promotion should be encouraged since its potency in influencing retention is high whist reducing the use of price discount and avoiding the use of sample since its retention capability is not realized in the industry.

The study conducted by Zubairu, Idaomi and Azubuike (2014). On the Impact of sales promotion strategies on product patronage: study of Chuppet Supermarket. The study examined the sales promotion strategies as a force that inevitably associates with other aspect of promotion applicable to the activities of any organisation. The uses both primary and secondary sources of data collection. Based on the findings, the researcher discovered that the supermarket kept and maintained its customers over the years because of its sale promotion activities coupled with quality products and personalized services which have led to increase in sales and profitability. The researcher recommended that improvement should be made on research and development because of the high importance of the growth of any firm to adequately know how to compete favourably with its competitors and also to know the need and want of customers.

Conclusively sales promotion can be beneficial for products or services that are complicated or are unfamiliar to consumers. Price plays a crucial role in the consumers' decision to purchase a particular product or service. Thus consumers will only choose products with the best offer.

Sales promotion attracts new buyers, thereby encouraging them to buy due to the extra benefit. Sales promotion also encourages the existing customers to buy and use more products than usual. Sales promotion if well managed can attract a huge sum of sales, attract new customers and sustain old customers.

**Theoretical Framework**

Sales promotion in companies including telecommunication companies cannot be overemphasized as they all have bearings in theoretical foundations. They are: The Theory of Planned Reasoned Action and Social Judgment Theory

**Theory of Reasoned Action**

The theory of reasoned action was formulated by Fishbein and Ajzen (1975 and 1980). The theory explains behavioral intentions, spanning prediction of attitude and prediction of behavior. TRA was developed to evaluate individual behavior by examining their attitudes, beliefs and behavioral intentions coupled with observed/expressed acts. Also, the theory suggest that most determinant of person's behavior is his/her behavioral intentions, which involves the negative or positive feeling leading to ''perform or not to perform'' that particular action (Asemah, 2014).

**Social Judgment Theory**

This is a self-persuasion theory proposed by Carolyn et al, (1965). It's seen as the perception and evaluation of an idea by comparing it with current attitudes. The central tenet of social judgment theory is that attitude change is mediated by judgmental processes and effects; that is, messages produce attitude change through judgmental processes and effects. More specifically, the claim is that the effect of a persuasive communication depends upon the way in which the receiver evaluates the position it advocates.

Hence attitude change is seen as a two-step process: First, the receiver makes an assessment of what position is being advocated by the message. Then attitude change occurs after this judgment—with the amount and direction of change dependent on that judgment. The plausibility of this general approach should be apparent: individuals' reaction to a particular persuasive communication will depend (at least in part) on that individual's thinking of—how favorable they are toward—the point of view that it advocates. But this suggests that, in order to understand a message recipient's reaction to a given message, it is important to understand how the receiver assesses the various positions on that issue (that is, the different stands that a message might advocate).

**Materials and Methods**

**Sources of Data**

Data for the study was obtained from primary source. This was generated through responses from registered customers of (MTN) in Maiduguri Metropolitan Council Borno State.

**Sample Size and Sampling Technique**

The sample size for the study is 399. This size was arrived at using the Taro Yamani formula. The study employed purposive sampling technique to select MTN subscribers within Maiduguri Metropolitan Council.

**Method of Data Collection and Analysis**

Survey method was used to collect data from the customers of MTN in Maiduguri Metropolitan Council. Five point likert scale questionnaire was used to measure responses on the scale hand anchors from 1, Strongly Disagree (SD) to 5, Strongly Agree (SA).

The study employed descriptive and inferential statistics tools to analyse the data collected. These involves the use of mean, standard deviation and maximum and minimum. Simple percentage and use of table presentation with the aid of Statistical Packages for Social Sciences

(SPSS) Version 10 and STATA was used. Multiple regression analysis was used to test hypothesis formulated. Data was also screened for skewness and normality.

**Model Specification**

The multiple regression models is specified as:

Multiple regression BnXn + e

The regression model is specified as:

$$\gamma = B_O + B_1X_1 + B_2x_2 + B_3x_3 + e$$

Where $\gamma$ = Customer Perception

$B_O$ = Constant term
$B_x$ = Coefficient to be estimated
$X_1$ = Contest
$X_2$ = Price deals
$X_3$ = Premium
$b_1 + b_2$ = Regression Coefficient

**Analysis and Discussion**

The data obtained from the respondents were collated and presented using frequency distribution table. A total of 399 questionnaires were distributed out of which 382 were retrieved for analysis. The analysis was done on the basis of the valid questionnaire as data retrieved were computed using the statistical package for social sciences (SPSS) version ten and STATA. Multiple regression analysis was used to test the three hypotheses formulated. The decisions for significant relationship were based on 0.05 alpha level and the results were presented on tables, while the variable addressing each hypothesis were also indicated.

**Table 1 Questionnaire Administration in Maiduguri Metropolitan Council**

| | | |
|---|---|---|
| **Number of Questionnaires Distributed** | **399** | 100% |
| **Number of Questionnaires Retrieved** | 382 | 97% |
| **Number of Questionnaire not Retrieved** | 17 | 3% |

**Source:** Field Survey, (2022)

Three hundred and eighty-two (382) questionnaires were retrieved from the customers of MTN within Maiduguri Metropolitan Council for analysis.

**Table 2: Model Summary: Descriptive Statistics of Customer Perception**

| Percentiles | | Smallest | | |
|---|---|---|---|---|
| 1% | 3 | 3 | | |
| 5% | 3 | 3 | | |
| 10% | 3 | 3 | Obs | 382 |
| 25% | 3 | 3 | Sum of Wgt. | 382 |
| 50% | 3 | | Mean | 3.052356 |
| | | Largest | Std. Dev. | .2756661 |
| 75% | 3 | 5 | | |
| 90% | 3 | 5 | Variance | .0759918 |
| 95% | 3 | 5 | Skewness | 5.695436 |
| 99% | 5 | 5 | Kurtosis | 36.46226 |

**Source:** Field Survey, (2022)

Table 2 Statistically describes the variable in terms of mean, standard deviation, variance, maximum and minimum values. It also shows the normality of the data in of the variable in terms of skewness and kurtosis (Customer Perception) has a mean value of $3.052 \pm .2756$ this indicates that the data is normally distributed.

**Table 3: Model Summary of Correlation Analysis**

| | x1 | x2 | x3 | Y1 |
|---|---|---|---|---|
| x1 | 1.0000 | | | |
| x2 | 0.2966 | 1.0000 | | |
| x3 | 0.3223 | 0.5669 | 1.0000 | |
| Y1 | 0.1409 | 0.1048 | 0.0048 | 1.0000 |

**Source:** Field Survey, (2022)

The four variables were subjected to reliability test where Alpha of 0.6668 was obtained which shows the relationship between $X_1, X_2, X_3$ and $Y_1$. Subsequent relationship between individual variables (independent and dependent variable) reveals that $X_1, Y_1$ r=0.5669, $X_2 Y_1$ ,r= 0.1048,and $X_3 Y_1$, r = 0.0048 hence this validates that there is a relationship between the independent and dependent variables.

**Table 4: Model Summary, Multiple Regression on Contest, Premium and Price Deals**

| Source | SS | df | MS | | |
|---|---|---|---|---|---|
| | | | | Number of obs = 382 | |
| | | | | $F(3, 379)= 1660.14$ | |
| Model | 3334.2692 | 3 | 1111.42307 | prob> = 0.0000 | |
| Residual | 253.730803 | 379 | .66942 | R-squared = 0.6293 | |
| | | | | Adj R-sq = 0.9287 | |
| Total | 3588 | 382 | 9.39267 | Root MSE = .81821 | |

| Y1 | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] | |
|---|---|---|---|---|---|---|
| x1 | .1992144 | .0146146 | 13.63 | 0.000 | .1704786 | .2279503 |
| x2 | .0417269 | .0177577 | 2.35 | 0.019 | .006811 | .0766427 |
| x3 | .1213093 | .0171805 | 7.06 | 0.000 | .0875283 | .1550902 |

**Source:** Field Survey, (2022)

Table 4 shows a multiple regression analysis of $X_1, X_2$ and $X_3$ against Y. The table shows an R $X_1 = .1992144$ which is = 19.9% $X_2 = 0.0417269$ and $X_2 = 0.1213093$ as the variables representing the fit of the model and $R_2 = 0.6293$ which is 62.93% which indicates that the variable has effect in predicting the linearity of the model. A P- value of 0.000, 0.019 and 0.000 which is highly less than $P < 0.05$ significant. This result suggests that all the three variables, Contest, Premium and Price Deals has significant effect in predicting customer perception

**Discussions of Findings**

The study assesses the effect of sales promotion on customer perception of MTN product in Maiduguri Metropolis and it was that there is a significant effect contest on customer perception of MTN product in Maiduguri Metropolis this in agreement with the study by Wamoni (2011), on Promotion Activities and Sales Volume in Telecommunication Industry: A Case Study of MTN (U) Limited. The study was specifically designed to examine the relationship between promotional activities and sales volume with reference to MTN Uganda. The findings show that

MTN widely used advertising and personal selling as the main promotion activities to stimulate their sales volume, promotion activities had really increased sales volume for MTN (U) for the last 3 years, and there is a very strong positive relationship between sale promotion activities and sale volume.

It was also found in this study that there is a significant effect of premium on customer perception of MTN product in Maiduguri Metropolis and this study collaborate with the study on the Impact of sales promotion strategies on product patronage by Zubairu, Idaomi and Azubuike (2014). The study examined the sales promotion strategies as a force that inevitably associates with other aspect of promotion applicable to the activities of any organisation it was found that sales promotion activities coupled with quality products and personalized services have led to increase in sales and profitability.

It was also found in this study that there is a significant effect of price deal on customer perception of MTN product in Maiduguri Metropolis, this finding is in relation to finding of a study by Quarshie (2010), on the Role of Sales Promotion in Increasing Revenue: in the Telephony Industry in Kumasi Metropolis. The research focused on the roles of sales promotion in increasing profits in the telephony industry in Kumasi Metropolis. Based on the findings, it was revealed that the telephony industry in Kumasi frequently used sales promotion to draw attention of customers to their new products, it has encouraged sales of slow moving items, reduced piled up stocks, stimulated off-peak sales of selected items and increased profits. On the part of management, it was also realized that they were always willing to provide the needed funds for sales promotion since it has helped them to maximize profits, stay in active business and to penetrate into the challenging and competitive market.

**Conclusion and Policy Recommendation**

This study was carried out in Maiduguri Metropolis on the effect of sales promotion on customer perception of MNT product in Maiduguri Metropolis. The study addresses the issue of contest, premium and price deal on customer perception of MTN product in Maiduguri Metropolis. Literature were reviewed on sales promotion and customer perception and as well as contest, premium, and price deals.

From the study findings it was found that contest is highly significant in predicting Customer's perception of MTN product in Maiduguri Metropolitan Council and is explained by Persistent promotion by way of organizing contest, promotion inform of contest, raffle draw, and General promotion to buy more of company's product.; it was also found in this study that premium has significant effect on customer perception of MTN products in Maiduguri Metropolitan Council and Goods are offered for free or at low cost, Premium such as buy one get one free, Voucher/recharge card doubling encourages customers to increase purchase of MTN product and reward creates influences customers to say good things about the company's offering explained the influence of sales promotion on customer perception of MTN product in Maiduguri Metropolitan Council.; reduced price deals usually creates the perception for customers to try the product for the first time, Lower prices motivates already existing customers to increase their purchase of the product, price discount affect customer's perception in building brand loyalty, and reduced price deals encourages customers purchase MTN products in bulk explains customer perception of MTN product in Maiduguri Metropolitan Council.

Based on the study findings the following recommendations were made;

i.   The service providers should try as much as possible to organize contest on regular intervals in order to influence customer perception of their product in Maiduguri Metropolitan Council.

ii.   Mobile telecommunication network service providers should offer premium to customers in form of goods they buy one and get one free, Voucher/recharge card doubling encourages customers to increase purchase of MTN product and reward creates influences customers to say good things about the company's offering explained the influence of sales promotion on customer perception of MTN product in Maiduguri Metropolitan Council.

iii.   Mobile telecommunication network service provider should offer price deals, lower prices that motivates already existing customers to increase their purchase of the product, and influence customer's perception in building brand loyalty of MTN product in Maiduguri Metropolitan Council.

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# Effect of Marketing Strategies on the Performance of Specialised and Deposit Money Banks in Oyo State, Nigeria

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***Abstract:*** *The market success of banking organizations in the contemporary business environment depends on the strategic agility that such organizations utilized in the value delivery. This study examines the effect of marketing strategies on the performance of specialized and deposit money banks in Oyo State, Nigeria. The specific objectives of the study are to evaluate the effects of promotion strategies used by specialized and deposit money banks on their performance; and to examine the effect of place/distribution strategies on the performance of specialized and deposit money banks in Oyo State. The study adopted the survey design. A census sample of one hundred and two was drawn from the total population of one hundred and two selected specialized and deposit money banks in Oyo state, Nigeria. Convenience sampling technique was used to select the respondents in the selected organizations. Data was collected through the use of closed-end structured questionnaires designed on five point likert scale. Based on the analyzed data, the findings revealed promotion strategy cannot be used to predict performance (market share. competitive advantage and sales volume). In addition, the study submits that location significantly affects the market share, competitive advantage and sales volume of deposit money banks and specialized banks The financial industry players and new entrants should develop new method in the aspect of promotion strategy, such as; influencer marketing, event sponsoring, referral marketing. Further, it was also recommended that specialized banks should move up their locations to commercial centers and solidify the position by complimenting their relocation with a fantastic service quality, targeting and positioning.*

***Keywords:*** *Promotion Strategies, Competitive Advantage, Specialized Banks, Financial Industry, Distribution Strategies*

## INTRODUCTION

The current globalization market has made companies to see the internationalization of their activities as a way to remain competitive. Marketing strategy has become important tool globally for any organization to remain in competitive market environment and was stronger. Aremu and Lawal (2012) sees strategy as a pattern ofresource allocation decisions made throughout an organization.This encapsulates both desired goals and beliefs about what areacceptable and most critically unacceptable means for achievingthem. Aremu and Lawal, (2012) say that strategy implies that the analysis of the market and its environment, customer buying behaviour, competitive activities and the need and capabilities of marketing intermediaries. Marketing strategy therefore, can be defined as a method by which a firm attempts to reach its target

markets. Marketing strategy starts with market research, in which needs and attitudes and competitors' products are assessed and continuesthrough into advertising, promotion, distribution and where applicable, customer servicing, packaging, sales and distribution. Marketing strategy must focus on delivering greater value to customers and the firm at a lower cost (Chiliya et al, 2009). Owomoyela et al, (2013) also see marketing strategy as way of providing a quality product that satisfies customer needs, offering affordable price and engaging in wider distribution and back it up with effective promotion strategy. Marketing strategy is a vital prerequisite of Industry's ability to strengthen its market share and minimize the impact of the competition.

Internal and foreign rivalries define the Nigerian banking system. The influx of new banks allows for more innovation and market share. The intensity of bank advertising in recent years is a proxy for determining the amount of competition. The system has seen complexity in the style and design of new financial products (Arikpo et al, 2017), bringing the banking sector in Nigeria's hopes for the 1980s and beyond to a close. In reacting to the changes in the banking business, it is expected that the service needed of it would become more complex in the nature of the business they are called upon to finance and as their customers become more knowledgeable and discriminating (Aliyu and Yusuf Vincent 2013). The financial system depends on public trust, and when that trust is eroded, disintermediation occurs, weakening the financial sector's capacity to execute its critical role of saving mobilization. Because of the nature of financial services, banks must establish a reputation for respectability, competence, and dependability by pleasing their clients. In general, marketing strategies of banks are based on 7ps: price, place, promotion, product, people, process, physical evidence. Banks can be classified according to several criteria which include: type of ownership, legal and organizational structure, type of duty, type of performance (activity), the expertise and services they provide, number of branches and level of access based on the measurement of activity.

The main objective of this research paper is to examine the impact of marketing strategies on performance with special reference to the selected specialized and deposit money banks in Oyo state, Nigeria. The questions raised are:
  i.      What effects do promotion strategies used by specialized and deposit money banks in Oyo State have on their performance?
  ii.     What effects do place/distribution strategies used by specialized and deposit money banks in Oyo State have on their performance?

## LITERATURE REVIEW
**Conceptual Framework**
**The Concept of Marketing Strategy**
There are numerous definitions of marketing strategy in the literature and such definitions reflect different perspectives (Liet al, 2000). However, the consensus is that marketing strategy provides the avenue for utilizing the resources of an organization in order to achieve its set goals and objectives. Marketing strategy is defined as in a given market area, the proper allocation of resources to support enterprises to win competitive advantage. Goi (2005) define marketing strategy as the set of the marketing tools that firms use to pursue their marketing objectives in the target market; the view which was earlier expressed by (Gronroos, 1999, and Osuagwu,

2006).Therefore, the function of marketing strategy is to determine the nature, strength, direction, and interaction between the marketing mix- elements and the environmental factors in a particular situation. According to (owomoyela, et al, 2013), the aim of the development of an organization's marketing strategy development is to establish, build, defend and maintain its competitive advantage. Managerial judgment is important in coping with environmental ambiguity and uncertainty in strategic marketing. Lin (1993) as cited in Long-Yi and Ya – Huei, (2012) proposes that marketing strategy can be divided into four ways to research that: (1) Dual-oriented marketing strategy: using rational and emotional product name, easy to remember, and pricing to take into account the cost of service and quality orientation, psychological factors and competitors" prices. (2) Rational marketing strategy: the use of functional demands of a rational position, consider after-sales service, warranties, delivery and installation attached by the product factors. (3) Emotional marketing strategy: the emotional appeal to locate, emphasis on physical product shape, color design, the use of emotional product names, and so on memory, attention to product packaging and labeling. (4) Maintenance marketing strategy: consumers are more concerned about price and quality, it is not suitable to use a lot of marketing techniques, manufacturers can improve product packaging and labeling, give a simple name for remember, consider the quality position and competitor pricing during pricing. Lin (1993) divides marketing strategy into four parts, that is dual-oriented, rational, emotional and low involvement, different product types with different marketing strategy, so the manufacturer's marketing strategy can be divided into five parts which is the choice of target market, product strategy, pricing strategy, channel strategy and marketing strategy. He used a total of 29 questions to measure new product marketing strategy and seven points Likert scale is used to measure. When the industry lack of competition, the business performance would be better even when companies are not entirely market-driven, the performance will have a more excellent performance (Kohliet al., 1993).

Previous studies have established relationships between the marketing strategies and performance (Shoham, 2002; Theodosiou & Leonidou, 2003; Owomoyela et al, 2013). Leonidou, Katsikeas and Samiee (2002) propose a study in which a meta-analysis was also conducted to evaluate the relationships between the marketing strategies and performance.

**Promotional Strategy**

Promotion means the activities undertaken to communicate the attributes and benefits of a product to the consumers (Ferrel and Hartline, 2002; Kotler et al., 2008). Promotion in marketing mix consists of advertising, sales promotions, personal selling, direct marketing and public relation (Kotler et al., 2008). **Advertising** concerns any paid transmission of company messages through impersonal media (Mühlbacher et al., 2006). This includes media such as television, radio, magazines, newspapers, direct mail, outdoor displays, the Internet and mobile devices (Ferrel and Hartline, 2002). Because of so many tools used by advertising, this method of communication is very flexible. It can reach a wide range of receivers or it can be transmitted to a specific defined target group (for example, through advertising in magazines or websites). **Sales promotion**, according to Ferrell and Hartline (2002), entails acts that provide value to the buyer or the trade. The arguments for include sales promotion in the marketing mix are enumerated by Boddewyn and Leardi (1989). These can include expensive television advertisement expenses, the difficulty of successfully differentiating a lot of similar items or services, and the ease with which clients can be targeted through sales incentives (Boddewyn and

Leardi, 1989). Sales promotion is rarely used as an independent form of promotion. It rather supports advertising, public relations and personal selling and the purpose is primarily to encourage the purchase and increase sales (Ferrell and Hartline, 2002). **Personal sellin**g: Has the form of personal presentation done by the company's sales force for the purpose of making sales and building customer relationships (Kotler et al., 2008). The contact between the seller and the consumer is seeking for an immediate sale of a product or service or increasing the interest in this product enough to purchase it in the near future (Gebratowski, 2010; Singla, 2006). When salespeople and individual consumers are both involved in the marketing, it becomes a two-way conversation (Kotler et al., 2008). As a result, the most accurate method of communication is personal selling (Ferrell and Hartline, 2002). Through marketing efforts, the organization may reacquire the attention that the consumer lost during a crisis by focusing on communication with the customers (Köksal and Özgul, 2007). **Direct marketing** is a method of communicating directly with carefully selected individual consumers in order to elicit an immediate response and develop long-term relationships (Kotler et al., 2008). It is centered on developing relationships, functioning in an interactive environment, and engaging in consumer discussion (Groucutt, Leadley and Forsyth, 2004). The fact that direct marketing is a type of conversation has been emphasized. Thanks to mutual exchange of information between the company and the customer, the company obtains feedback, which is helpful by creating and maintaining the relation with customers. **Public relations** (PR) are defined as the planned building and maintenanceofcommunicative relations between a company and its stakeholders. There are activities provided to build good relations with the company's various publics (Debski, 2007). The goal of these is to instill a good image of the firm in the minds of its stakeholders (Mühlbacher et al., 2006). It is also to obtain favorable publicity, build up a good corporate image, handle or head off unfavorable rumors, stories and events (Kotler et al., 2008), and also to present the company as a reliable producer and partner (Debski, 2007). Positive image of the company and good relations with the environment increase confidence in the company as a result of public relations, what indirectly support sales

**Place or Distribution Strategy**

Place in marketing mix means the place and form of providing product to the consumers (Grzywacz, 2006). It refers to the steps taken by a firm to make a product available to the intended market (Kotler et al., 2008). Distribution channels and physical distribution methods are the two primary components of the location strategy. (Mühlbacher et al., 2006). People, organizations, and institutions are the distribution channels via which products and services are supplied to customers (Mühlbacher et al., 2006). When talking about banking, three types of distribution channels can be distinguished: (1) conventional distribution, which occurs at banks' headquarters and branches, (2) non-stationary (mobile) distribution, which involves bank workers visiting clients at their mobile points of sale and (3) electronic distribution, which includes ATMs, phone banking, home banking, and online banking (Grzywacz, 2006). The client group to whom specific bank products are provided, the product, its characteristics and pricing, rivals' distribution systems and the bank's financial and human resources all influence the choice of distribution channel (Gregorczyk, 1997). Not only should the proximity of a bank's branch be considered when choosing a channel, but also the ability to communicate with the bank (Grzywacz, 2006). The usage of multi-tasking cash machines, the Internet, home banking, and phone banking is boosting access to financial goods. The means of physical distribution are the

tools and abilities used to reduce the physical distance between the company and its customers (Mühlbacher et al., 2006). This primarily refers to the company's branches and their locations (Kotler et al., 2008). When it comes to banking, the high cost of maintaining bank branches has an impact on distribution (Grzywacz, 2006). The increasing number of employees, as well as recruitment efforts for a secure security system and advanced computer system, all contribute to rising costs.

**The Concept of Performance**

Performance, as a concept, is a subject open to wide variability as it is a somewhat imprecise word when it functions as a placeholder in research (Folan,et.al 2007). The lack of agreement on a definition creates confusion and clearly limits the potential for generalizability and comparability of research in this area (Franco-Santos, et.al 2007). The business dictionary however defines performance as the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. According Molly (2013) to accurately assess how well a business is performing, one needs to develop some quantifiable measures by identifying those aspects of the business processes that need improvement and those that are working well. This can then be used to evaluate the company's productivity over a set period of time. The U.K based firm, Kellerton Consulting (2013) has observed that performance management should be at ensuring that as much information and decision making as possible is geared towards improving performance in line with the organization's goals and strategy. Kellerton's definition of performance management is a wide one and incorporates a number of other disciplines that can help an organization to achieve the desired result. These include: • Business planning and consolidation software (to align budgets, strategic plans and management accounts to an organization's goals) • Executive dashboards (to display key performance indicators (KPIs) to the senior management team) • A balanced scorecard methodology (to help measure an organization's performance holistically and balance financial and non-financial KPIs) • Strategy management software (to keep track of initiatives, performance objectives and KPIs in one place) • Performance appraisals and performance related pay (An HR driven activity to align This study measured the performance of SMEs in terms of profitability, brand awareness and market share.

**Relationship between Marketing Strategies and Performance**

To create an effective marketing strategy, it is necessary to include a communication strategy to support the actions to be taken. This strategy should also include a schedule that contains both traditional and non-traditional media (Tapia, 2013). Traditional media includes television, newspaper, magazine, cinemas and billboards. For the purposes of this study traditional media was categorized into seven main forms.Non-traditionalmedia includes internet, digital media, social media, websites, emails, mobile technologies and video conferencing. For the purposes of this study non-traditional media was categorized into three main forms.Theimportance of non-traditional media is fast growing and they can be used create the right brand management that will lead into more sales and brand recognition (Tapia, 2013). It is important to note that none of the strategies is better than the other. However, finding the right mix of both media can create the best communication/marketing strategy for the company and specifically for the product being offered for sale. Taiwo (2010) has indicated that strategic marketing practices have a significant

impact on performance variables and that they interact with the different components to facilitate performance. This statement confirms the observations of earlier studies (Day & Montgomery, 1999;Johne and Davies, 2002: Folan et. al.,2007; FrancoSantos et. al.,2007). Davidet.al (2013) concludes that there is a strong correlation between marketing strategies of SMEs and performance in terms of growth in revenue and job opportunities, improved efficiency, and wider connection with customers.

**Theoretical Review**

According to Gronroos (1994), the theory of Marketing Mix was coined by Borden. Hence, this study anchored on Marketing Mix Theory. The idea is still utilized today to make key decisions that lead to the implementation of a marketing strategy. The goal of a marketing mix theory is to arrange all parts of a marketing strategy around the target market's habits, preferences and psychology. The theory combines a number of elements in order to help sell a product or service by strengthening and solidifying its brand. The components combined by this theory are products, price, promotion and place forming the four Ps, the parameters that the marketing manager can control, subject to the internal and external constraints of the marketing environment. The objective is to make decisions that focus on the four Ps in order to create perceived value and elicit a positive response from customers in the target market.

## METHODOLOGY

Survey design was used as the research design of the study and target population of the study is based on the marketing staff of Stanbic Ibtc, FCMB, Union Bank, Bank of Industry, Bank of Agriculture and Federal Mortgage Bank, Oyo State, Nigeria. The population of the study consists of 102 staff of the focused banks in question.The targeted population strictly comprised of highly performing banks according to net profit and running cost. Having defined the population, the researcher made use of the entire population (enumeration method) because it was few. The survey technique adopted for this research is census. The responses opinion was tried with percentages, while regression and cluster analysis were used to test the formulated hypotheses.Non-Probability sampling technique (Convenience Sampling) was used in this study and the research instrument used in this study was purely questionnaire (primary data). The questionnaire measured the key variables of the research, and a structured questionnaire with close-ended type are used for this research work with 1-5 Likert scale which consist of strongly disagree to strongly agree to answer the research questions, and also it is used to measure the responses of the respondents of this study. This study used descriptive and inferential statistics.

## RESULTS AND DISCUSSION

There was a perfect return rate regarding the questionnaire. In all, 102 copies of the questionnaires were administered to the respondents, and all were returned with none filled incorrectly nor head back. Therefore, the data collected from the field is deemed adequate enough for the study.

Table 1: ***Distribution of the respondents according to the types of Banks***

| Parameters | Frequency | Per cent |
|---|---|---|
| *Deposit money bank* | 79 | 78.2 |
| *Specialized bank* | 22 | 21.8 |

*Source: Author's Computation, 2020*

Table 2**: Specific distribution of the respondents according to types of banks**

| Parameters | Frequency | Percent |
|---|---|---|
| *Bank of Agriculture* | 7 | 6.9 |
| *Bank of Industry* | 8 | 7.9 |
| *FCMB* | 23 | 22.8 |
| *Federal Mortgage Bank* | 7 | 6.9 |
| *Stanbic IBTC* | 24 | 23.8 |
| *Union Bank* | 32 | 31.7 |
| TOTAL | 101 | 100% |

*Source: Author's Computation, 2020*

**Objective One: Promotion Strategy and Performance**
All the respondents agreed that advertising is a major way the two types of banks used as their promotion strategy, however, 79.2% of the respondents disagreed that the banks promote their products and services through discount. The banks can look into it and add as their promotion strategy. A large number of the respondents, 98 per cent agreed to knowing that the banks employ services of public relations as their promotion strategy, and they also agreed that the banks made use of persuasion to convert prospects to buying customers. And 99% agreed that the banks used social media platforms as their promotion strategy.

Table 3: **Promotion Strategy**

| Promotion Strategy | Strongly Agree | Agree | Uncertain | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Advertising is a major way through which your bank creates | 72(71.3) | 29(28.7) | 0(0.0) | 0(0.0) | 0(0.0) |
| Your bank promotes its products and services by giving discounts. | 4(4.0) | 10(9.9) | 7(6.9) | 38(37.6) | 42(41.6) |
| Your bank employs the services of public relations department | 38(37.6) | 61(60.4) | 1(1.0) | 1(1.0) | 0(0.0) |
| Your bank makes use of persuasion techniques to convert prospects/leads into buying customer | 42(41.6) | 41(40.6) | 1(1.0) | 8(7.9) | 9(8.9) |
| Your bank promotes their products and services on social media platforms | 57(56.4) | 43(42.6) | 0(0.0) | 1(1.0) | 0(0.0) |

*Source: Author's Computation, 2020*

**Performance**

Table 4 revealed the performance of the types of banks surveyed. In terms of swift response to customers' complaints by the banks, leading to or yielding a higher patronage, 76.2% of the respondents strongly agreed, 21.8% also agreed but a negligible 1% disagreed and anther 1% strongly disagreed. Also examining the relationship between banks and their customers as a pedestal to a significant level of growth and performance, 43.6% of the respondents strongly agreed and 53.6% also agreed, however, a minute number of 1% of the respondents disagreed and 2% strongly disagreed. Looking further if effective marketing strategies have helped increased the profitability position of the banks, 43.6% and 32.7% strongly agreed and agreed respectively that it has. However, while t 2% were uncertain and 10.9% disagreed, 10.9% strongly disagreed.

It is also revealed that 41.6% of the respondents strongly agreed and 55.4% agreed that their banks have witnessed an increase in sales of products and demand for services due to their marketing strategies, but 2% disagreed and 1% strongly disagreed. Lastly, 51.5% strongly agreed and 25.7% agreed that the application of marketing strategies has made their banks to be more competitive, but 2% were uncertain and 8.9% disagreed while 11.9% strongly disagreed.

Table 4: **Performance**

| Performance | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| *Your bank's swift response to customers' complaints yielded high patronage.* | 77(76.2) | 22(21.8) | 0(0.0) | 1(1.0) | 1(1.0) |
| *The relationships between your bank and its customers have led to a significant level of growth and performance.* | 44(43.6) | 54(53.6) | 0(0.0) | 1(1.0) | 2(2.0) |
| *With effective marketing strategies, your bank has increased its profitability position.* | 44(43.6) | 33(32.7) | 2(2.0) | 11(10.9) | 11(10.9) |
| *Your bank has witnessed an increase in sales of products and demand for services due to marketing strategies.* | 42(41.6) | 56(55.4) | 0(0.0) | 2(2.0) | 1(1.0) |
| *The application of marketing strategies has made your bank to be more competitive.* | 52(51.5) | 26(25.7) | 2(2.0) | 9(8.9) | 12(11.9) |

*Source: Author's Computation, 2020*

**Correlation Analysis and Discussion**
**Promotion Strategy and Performance**
In order to determine the effect of Promotion Strategy (PS) as a Marketing Strategy adopted by both Deposit money banks and Specialized banks on their performance, a simple linear regression model was adopted. As revealed in Table 5 below, it can be seen that the models for both Deposit money bank and Specialized bank is not significant. This means that the Promotion Strategy (PS) cannot be used to explain the Performance (PERF) in this study. In addition, the coefficient and p-values show insignificant results. In the light of this result, we therefore accept the null hypothesis that there is not significant effect of the Promotion Strategy on Performance for both Deposit Money bank and Specialized bank.

The finding of the present study is further substantiated by the research conducted by Adefulu (2015) who concludes that personal selling has no significant impact on the performance of firms. However, the findings contradict the result of Daniel (2008) who concludes that there is a significant influence of Promotion Strategy on the performance of firms. The contradicting conclusion makes it obvious that banks and other firms have their own peculiarity in terms of the strategies to be adopted and those yield positive result. The implication is that banks should focus on other aspects of marketing strategies, and be ready to tap into other green areas by extending beyond social media and public relation.

Also, the inefficiency of the promotion strategy adopted by the banks under study may be associated with the extent of its reach. Most of the banks under study prefer to conform and flow with the trend rather than create a unique context that would give their brand the necessary visibility and position in the industry. They all copy ideas when it comes to their presence on the social space. One of the areas where they muddle their promotional strategy is in the huge financial investment on celebrities. The banks could actually engage the service of many influencers at a cheaper cost and receive a greater return on investment. Celebrity endorsement

deals produces results, nevertheless, the financial investment that goes into it may end up not commensurate with the result.

*Table 5: Performance and Promotion Strategy*

|  | **Deposit Money Bank** | **Specialized bank** |
|---|---|---|
| *Model [F-stat(P-value)]* | 1.724(0.193) | 2.911(0.103) |
| *PS [coef(P-value)]* | 0.208(0.193) | -0.358(0.103) |

*Source: Author's Computation, 2020, PS = Promotion Strategy, PERF = Performance*

## Objective 2: Bank Location and Performance

In order to achieve the second objective which is to determine the impact of the location of the banks on their respective performances? A pictorial representation of the location and performance was adopted. The Locations of the banks are listed on the Y-axis while the Performance (PERF) of each bank which was calculated as a composite of the data retrieved via the questionnaire. Performance was adopted as a rank: banks with high performance have a rank close to 1 while otherwise have a rank around 4.5. According to figure 1, a cluster of banks, mostly deposit money banks, perform well in some commercial locations as seen on the location axis. On the other hand, many of the Specialized banks have lesser ranks in some locations. However, few number of deposit money banks around Ogbomoso-Ilorin expressway and Bank Road seem not to be high in Performance (PERF). Hence, we can conclude that location greatly affects the performance of the banks.
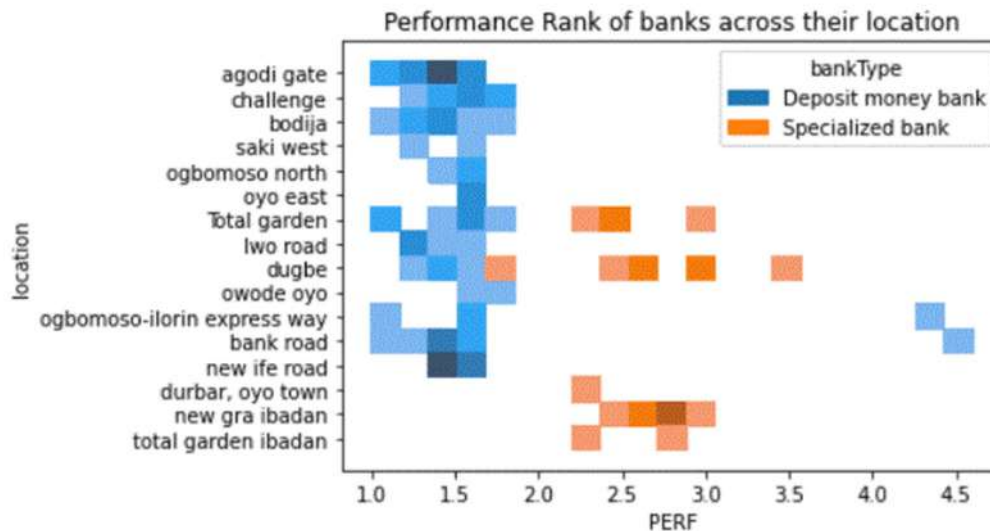


*Figure 1: Performance Rank of banks across their location*

## CONCLUSIONS AND RECOMMENDATIONS

Specific findings of the current research have demonstrated several relevant conclusions on the evaluation of the impact of marketing strategies between specialized and deposit money banks. Therefore, the study concludes that Promotion Strategy cannot be used to predict Performance (market share. competitive advantage and sales volume). In addition, the study submits that location significantly affects the market share, competitive advantage and sales volume of deposit money banks and specialized banks under study which subsequently explains the reason for the incredible performance of the banks in the commercial locations.

According to findings few recommendations are made available for banking institutions in Oyo state, Nigeria.

i.  The study recommended for the first objective that financial industry players and new entrants should develop new method in the aspect of promotion strategy, such as; influencer marketing, event sponsoring, referral marketing.

ii.  Furthermore, findings from the study shows that, a cluster of banks (mostly deposit money banks perform well in some commercial locations. On the other hand, many of the Specialized banks have lesser ranks in some locations. However, minute number of deposit money banks around Ogbomoso-Ilorin highway and bank road seems not to be high in Performance (PERF). The study therefore recommended that specialized banks should move up their locations to commercial centers and solidify the position by complimenting their relocation with a fantastic service quality, targeting and positioning.

Although this present research evaluated the effect of promotion and place strategies on performance. However, there are many potential benefits of marketing strategies that are yet to be empirically investigated. Some of such areas, which require examination, are the extent to which segmentation, targeting and positioning influence performance. Secondly, this study focused exclusively on six banks in Oyo State. There is need to carry out empirical studies on the extent to which marketing strategies is executed in other states in Nigeria.

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# Training and Employee Efficiency of Universities in Rivers State

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**Abstract:** *This study evaluates theoretically the relationship between training and employees' efficiency in Universities in Rivers State. It examined the effect of training on employees' efficiency. The literature reviewed showed a significant effect of training on employee efficiency. It is therefore concluded that through proper training, the organization creates and improves the nature of the present workers. Training additionally has a noteworthy part of the employee efficiency by instilling in them the important skills required to perform different tasks in the organization. The research recommends that continuous training should also be done to keep the workers abreast of emergent technologies and outcome of training programs should be evaluated through customer surveys, peer surveys and superiors' evaluations.*

**Keywords:** *Employee Efficiency, Training, Universities in Rivers State*

## Introduction

The link between inputs and outputs, as well as the degree to which inputs were effectively translated into outputs, are what are measured by efficiency (Low, 2000). To get maximum results The Total Productive Maintenance system developed by Porter recommends the elimination of six different types of losses, which are as follows: (a) reduced yield – from start-up to stable production; (b) process defects; (c) reduced speed; (d) idling and minor stoppages; (e) set-up and adjustment; and (f) equipment failure. Efficiency increases in direct proportion to the number of inputs that are required to produce a given result. According to Pinprayong and Siengthai (2012), the efficiency of a company exposes the performance of its input and output ratio, but the efficiency of an organization represents the improvement of the organization's internal processes, such as its organizational structure, culture, and community. An entity's performance in terms of management, productivity, quality, and profitability might be improved by improving the organizational efficiency to an excellent level. According to Pinprayong and Siengthai's (2012) research, seven dimensions may be used to determine the effectiveness of an organization: organizational strategy, the creation of corporate structures, the development of management and business systems, the growth of corporate and employee styles Encouragement of staff commitment, Growth of staff members' abilities, and Achievement of subordinate objectives.

The distribution of resources among the many possible applications is the essence of efficiency (Kumar & Gulati, 2010). Although efficiency exposes an organization's operational excellence in the process of source utilization, it is essential to recognize that this does not always suggest the firm is achieving outstanding performance in the market. This is a key point to keep in mind.

Organizations may have effective management, but if they have bad operational management, the entity will have inefficient performance despite good management (Karlaftis, 2004). An organization that is both inefficient and ineffectual is certain to experience a costly failure. In this scenario, there is neither an appropriate strategy for the distribution of resources nor an organizational view of the future of the company. The company has problems with its leadership, a high personnel turnover rate, and a lack of clarity around where the business will be standing in the future. If the company can efficiently manage its resources but is unable to achieve the objectives it has set for itself over the long term, the company will eventually go bankrupt. This approach minimizes expenses while also contributing neither originality nor value to the enterprise. Because management has not established a policy that is oriented toward the consumer, there is a persistent emphasis on efficiency. Such an organization will use all of its efforts to put in place a stringent resource allocation strategy, which will result in stringent staff cost management and a decrease or even elimination of the costs associated with training. These acts contribute to poor morale across the business, a high turnover rate of personnel, and a low level of satisfaction among customers. An organization that is efficient but not effective cannot be competitive, and it will ultimately fail and go bankrupt.

As a result of globalization, changes in technology, political and economic environments, and other factors (Evans, Pucik & Barsoux, 2002), organizations are facing increased competition, which is prompting these organizations to train their employees as one of the ways to prepare them to adjust to the increases above and thus enhance their performance. One mustn't overlook the preponderance of facts on the expansion of knowledge in the business and corporate sector during the last decade. This expansion has not just been brought about by advancements in technology nor by a combination of means of production; rather, it has also been brought about by greater efforts towards the development of organizational human resources. Every corporation thus must improve the work efficiency of its workers, and unquestionably the adoption of training and development programs is one of the primary measures that the majority of businesses need to take to accomplish this goal. Because it is abundantly clear that workers are an essential resource, it is essential to maximize the contribution that employees make to the purposes and goals of the organization as a method of ensuring that efficient performance is maintained. As a consequence of this, it is incumbent upon managers to guarantee that there is a sufficient supply of employees that is both technically and socially competent, as well as capable of career progression into specialized areas or management roles (Afshan, Sobia, Kamran & Nasir, 2012).

The performance of an organization's human resources has a direct impact not only on the present state of affairs but also on the organization's prospects for the future. As a result, the competencies possessed by employees are an essential component in determining both the present and the future state of affairs of an organization. The training that a company provides for its employees may have an impact on how well it operates (Iqbal, Ahmad & Javaid, 2014, Padamanaban & Shakeel-Ul-Rehman, 2013; Elanga & Imran, 2013). The performance of employees at their jobs may be improved by the implementation of many different training approaches, which, in turn, leads to an improvement in the performance of the company as a

whole. As a result, training techniques have the potential to be the most important aspect of an organization's performance, which supports the need of researching them. Recently, one of the most significant foci of study attention has been directed toward the influence of organizational practices regarding the management of human resources and the provision of training (Manning, 2015; Jayakumar & Sulthan, 2014; Treven, Treven & Zizek, 2015).

Training has the potential to bring about several benefits, including an increase in the level of dedication and collective empowerment among workers, as well as an improvement in job satisfaction among workers (Voegtlin, Boehm & Bruch, 2015; Ajibade & Ayinla 2014; Sung & Choi, 2014). Utilizing contemporary strategies and cutting-edge educational theorizing is an essential component of educating today's workforce. The use of effective training techniques that are in a position to capture the attention of workers and improve the learning process is essential to the accomplishment of the goals of the training program (Teck-Hua & Catherine, 2015; Mishra & Smyth, 2015; Alwekaisi, 2015).

The attitudes of trainees towards the training practices and results are the foundation for the success of training practices; thus, attracting the attention of learners during training is connected to an important problem that creates the basis for the success of training practices. According to Nu'man (2006), trainees who have a favorable attitude toward training activities increase the advantages they get from the experience. In their investigation of the organizational evaluation, Bartuseviciene and Sakalyte (2013) looked at the following: Comparison between effectiveness and efficiency Al-Mzary, Al-rifai, and Al-Momany (2015) researched training and its influence on the performance of workers in Jordanian Universities from the viewpoint of employees: social transformation in contemporary society; In the study conducted by Bhat (2013), the influence of training on employee performance was analyzed using the instance of Yarmouk University. Halawi and Haydar (2018) investigated the impact of training on employee performance using data from the Retail Banking Sector in India. Their findings were as follows: An analysis of the Bonus and Khatib & Alami Companies as a case study. According to the findings of the research described above and the kinds of literature that were examined, we have determined that there is a dearth of literature about the connection between employee training and the productiveness of universities located in the state of Rivers, Nigeria.

## REVIEW OF LITERATURE

### Concept of Training

Training has long been acknowledged as an important HRM function, and academic authors have devoted a large deal of their research time to studying it (see e.g. Gordon 1992, Beardwell, Holden & Claydon 2004). As a result, training has taken on many different meanings. According to Gordon (1992), training is the planned and systematic alteration of behavior via learning events, activities, and programs that result in participants attaining the levels of knowledge, skills, competencies, and abilities necessary to carry out their tasks successfully.

It's worth noting that, as scholars continue their investigation into the training research field, they also continue to argue for its significance. According to several of these academics, the increased competitiveness and the relative success of companies that place a high value on staff development have played a significant role in the current realization of the significance of training (Beardwell et al. 2004). Additionally, Beardwell et al. (2004) note that as a result of technological advancements and organizational changes, some businesses have begun to realize

that their success is directly tied to the abilities and knowledge of their employees, necessitating a significant and ongoing investment in employee training and development.

In Cole (2001), highlights the advantages of training to include better morale, decreased production costs and turnover, change management and recognition, expanded responsibility, and the prospect of increased compensation and promotion.

## Concept of Employee Efficiency

Workplace efficiency is critical. Additionally, companies must cost-effectively develop their goods to be successful (Everard & Burrow, 2001). As Schermerhorn, Davidson, Factor, Poole, and Woods (2017) note, Drucker's famous comment "There is probably nothing so worthless as doing with great efficiency what should not be done at all" provides a way of distinguishing between effectiveness and efficiency. It's only efficient if it's useful. To put it another way, efficient action produces a beneficial outcome. It must be able to do its job (Noordzij, 2013). When efficiency is already in existence, it is possible to speak about efficiency. To be efficient, one must be able to accomplish a task or generate a product by using as little resources, time, or effort as possible. When it comes to reaching organizational objectives, it's all about resources and speed. The maxim "doing things well" was coined by Drucker in 1974. When it comes to determining how efficient a company is, production is the metric that matters most (Everard & Burrow, 2001).

The speed and precision with which an employee completes a particular assignment is a measure of an employee's efficiency. To put it simply, if you manage an employee properly, they'll be more productive, and that's the point of the notion (Fandom, 2017). The efficiency of an employee is a complicated quantitative measure that describes the output created by an employee's efforts and accomplishments (TaskManagementGuide, 2018). According to Akerele (1991), many factors are to blame for Nigerian workers' low productivity, including employers' inability or unwillingness to pay workers adequately for the amount of effort they put in, and the arrogant display of wealth by the privileged class, which demoralizes the working class so much that it reduces their productivity.

## Empirical review

Several factors have been employed in this study to examine the variations in employee performance before and after training: quality/quantity of work, planning/organization, initiative/commitment, teamwork/cooperation, and communication (Paat and Rumokoy, 2015). There is a considerable difference in performance between employees before and after training in terms of quality/quantity of work, planning/organization, initiative/commitment, teamwork/cooperation, and communication. One of the most effective techniques for improving employee performance is the training program. It's advised that the Bank Indonesia management raise the training's efficacy as well as broaden its selection of training materials and modules (Paat and Rumokoy, 2015).

Analysis of training and performance at the middle management level at a university was the goal of a study by Nu'man (2006). The study compared views of upper managers and middle managers on the training process (defining the training needs, trainer's selection, designing of training courses, and training process evaluation), A secondary goal of the research was for the researchers to provide some suggestions that may aid the university in improving the effectiveness of its training programs, allowing it to play a significant role in the development of

training-related expertise, skills, and know-how. People who work at Taiz University made up the study's population. There were a total of (240) employees, of both sexes. They were separated into two groups: the administrative leadership, which included the president, vice presidents, general managers, and the like, comprised of (70) male and female personnel. The second set of Taiz University employees consisted of (70) male and female managers and department heads (middle management). People who took training courses were solely included in this research. A lack of interest in using cutting-edge educational technologies was found in the study, with the emphasis being placed on more conventional means of teaching. There are no defined guidelines for the selection procedure for trainees, according to the results of the study. The selection procedure for trainees is influenced by personal preferences and ideas, which hurts the training itself. According to the findings of the research, the university's training benefit rate is being lowered due to inefficient training assessment.

Falola and his colleagues (2014) set out to explore the impact of training and development on the performance of workers and the competitiveness of organizations in Nigeria's banking sector. To gather data, the researchers employed a descriptive study design and a sample of 223 valid questionnaires completed by bank employees in Lagos State, Nigeria. Descriptive statistics were used to depict the raw data understandably. The findings demonstrated a clear link between employee performance, training and development, and a company's ability to compete. The results show that the tested dependent variable is strongly linked to the independent construct.

Researchers from Nigeria's the River State University of Science and the University of Port-Harcourt studied personnel training programs at the university libraries. According to the study, the success or failure of a training program is mostly dependent on the educational level of the personnel and the skills they gained from the training. When it comes to employee work performance, training matters, according to research conducted by Bin Atan and colleagues (Bin Atan et al, 2015). A small and medium-sized business in Malaysia was the setting for the research (SME). The research looked at how the company's workers performed on the job as a result of the training they received. The training and job performance of the company's workers were reviewed as part of the functional area linked with successful human resource management procedures. Employees from the company's many manufacturing divisions volunteered to take part in the study, which was conducted through a questionnaire. The research found that good training had a considerable impact on workers' job performance.

Using an integrated research model that combines the most important factors that previous literature has shown to be associated with training transfer and also examines the relationship between training transfer and operational performance, Diamantidis, and Chatzoglou (2014) investigated the medium- to long-term effects on firms of training programs. Training design, trainee self-efficacy, and work environment were all included in the study's transfer variables. To evaluate the validity of this model, data from 126 Greek workers who have participated in different training programs are analyzed using the structural equation modeling technique. The design of a training program has the greatest influence on post-training job performance, coupled with trainees' self-efficacy and post-training behavior.

Statistical analysis of the link between a training approach and employee performance was the focus of research by Al-Awawdeh (2011). The theoretical section of the research sought to estimate the possible impact of important persons and performance, which had been identified. The SPSS regression approach was used to examine the independent variables; training system, training, and obstacles. Al al-Bayt University's administrative departments employed 651 people,

and a random sample of 120 people was selected from that number. All of the independent factors had statistically significant impacts on performance, and the influence on morale was also statistically significant. The two performance factors that were unaffected by the transaction had a favorable impact on each other. Research shows that Al-Bayt University employees require scientific ways to identify their training needs and to develop training programs that address challenges in practice and strive to overcome them. It was suggested that training programs should be developed in light of global trends, so that trainees may be prepared for what may happen as a consequence of changes in the globe.

**Theoretical Framework**
**Human Relations Theory**
Human-Relations Theory first emerged in the 1930s as an alternative viewpoint to classical theory (Kreps, 1990). Mayo, Roethlisberger, and Dickson first tested the notion, which became known as the Hawthorne Studies (Roethlisberger & Dickson, 1939). These experiments were carried out in four stages: lighting, relay assembly testing, interviewing, and bank wiring testing (the "Hawthorne Studies"). The Human Behaviour school of thinking switched from a focus on production and job design to an emphasis on the interactions of persons. The Human-Relations Approach places a higher value on meeting the needs of the organization's employees, including them in decision-making, and providing them with ways to communicate with one another. According to Human Relations, it is critical to identify the unique requirements of each organization's members, which can only be done via open and honest communication between employers and employees.

Effective management communication, according to Skinner, Essen, and Mersham (2001), is best accessed via the use of a communication audit. To put it another way, the job of human resources relies heavily on communication. The Human Relations Approach is important because it emphasizes the relevance of employees and social variables in the efficacy of internal communication and problems like leadership. As a whole, the human relations approach focuses on the relationship between management and workers, their motivation, and effect on organizational events. Thus, it is easier to see what the company's leaders and workers can do to improve internal communication. Thus, the research will be able to assess whether or not different forms of communication, such as written correspondence and verbal communication such as telephone conversations or electronic correspondence such as emails and memos, are more effective than others.

**Systems Theory**
A scientist named Ludwig von Bertalanffy first presented the general system theory in 1968 in his book General Systems Theory: Foundations, Development, Applications as a way to describe how living creatures' elements interact with one another and with the rest of their environment (Weckowicz, 2000). For an organization, this kind of framework gives a broad analytical standpoint (perspective). Since then, the idea has found application in a variety of academic disciplines, including psychology, history, and physiology. The classical and human relations paradigm has been displaced, according to management theorists' research. The systems theory, according to Booth (1986), is more suited to internal communication. That's because a system approach sees communication as a key component to making organizations work together

smoothly and effectively. Some key components of the systems theory have been discovered in corporate communication research that defines how successful communication contributes to employee productivity, particularly wholeness, hierarchy, and feedback. The components of a system are defined by the system as a whole, according to systems theory (Weckowicz, 2002). Wholeness refers to the interconnectedness of all of the system's components. An organization is only possible since each aspect of a system contributes to it. An organizational structure, according to Miller (2009), is defined as a set of rules that govern the relationships inside an organism. In this way, the primary systems' components are divided into smaller units called subsystems, each of which functions within a broader context. Through the use of feedback (Miller, 2009), decision-makers in a business may create connections within their network by strategizing to stay ahead of difficulties. Interconnectedness and interdependence are two of the fundamental ideas of systems theory, according to Salem (1999). Communication audits are based on the same basic principles.

**Conclusion**
According to the findings of the theoretical research, it has been discovered that workers are an organization's most important asset, and they should be managed in a way that ensures they contribute their best towards the achievement of the organization's goals and objectives. As a result, it is recommended that effective implementation of training programs in universities be done frequently to increase workers' efficiency.

**Implications of the study**
In this research, it was shown that training had an effect on the productivity of workers. This study's findings are in line with other studies on management training that have come before it. Different questions are asked of respondents in order to acquire a better understanding of training provided by universities in Rivers State. The emphasis of these questions is on how well employees are involved in training, how they are selected for training, how training is delivered, and how relevant training is to the respondents' jobs. Recommendations were made as follows:
Training workers in critical thinking, central leadership, collaboration, and connecting to people may help the company achieve positive firm-level outcomes. The firm may use training to improve the productivity of all workers, which is critical to the growth and success of the organization. For both workers and employers, it's a great tool. However, if an employee is well-trained, he or she will be more effective and valuable. In order to increase productivity and inspire and encourage staff, it is vital to provide them with all the information they need to improve their production. Training helps employees do their jobs more effectively, as well, since they're more equipped to handle their assignments. As a result of this, he or she is more conscientious when it comes to doing routine tasks, such as going to the grocery store or going to the dentist. The worker's self-confidence may also be boosted by the training since he or she has a better understanding of the company and the responsibilities of the job. Having a high level of self-confidence may lead to exceptional achievements and fresh ideas that go above and beyond what is expected. Workers are kept up to date with industry changes thanks to regular training. Employees that are competent and willing to adjust the company's standards assist the organization to maintain a leadership position and become a strong competitor in the business. A well-structured training program ensures that personnel have a solid foundation of knowledge and experience. Organizational rules and processes are particularly important to maintain a high

degree of consistency. It is the responsibility of every employee to be aware of the company's policies and expectations. Security, discrimination, and administrative tasks are all included in this. As a result of frequent training, all staff members will at least be exposed to the information.

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# Product Intelligence and Buyers Behavior of Selected Mobile Phones in Nigerian Major Cities

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***Abstract:*** *Over the years, the use of information technology has made it easier for organization to develop varieties of intelligent products which has led to adaptation to changes in the business environment, cooperation with other product freely. This study examined the relationship between product intelligence & consumer buying behavior of selected mobile phones in Nigeria. In relation to relation literature reviewed with scholars, this paper emphasizes more on the theories and empirical facts on product intelligence to reinforce the subject matter properly. It explains the relationship between product intelligence and buying behavior with the aid of the innovation attributes of relative advantage, compatibility, and complexity. The survey research design was adopted using questionnaire to obtain information from customers of the selected store. Data was obtained from the primary source. The result of this study revealed that consumers who perceive high functional or emotional value are accordingly willing to use their mobile phones in more ways, and may utilize the full spectrum of features.*

***Keywords:*** *Product Intelligence, Buying Behavior, Innovation Adoption, Relative Advantage, Compatibility*

## INTRODUCTION

Buying behavior is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires. This has numerous factors as a part of it which are believed to have some level of effect on the purchasing decisions of the customers. It is all about the set of activities which involves the purchase and use of goods and services which resulted from the customers' emotional and mental needs and behavioral responses. The buying behaviors of consumers in the world market varies tremendously depending on their culture, age, taste, preference, level of education, income and personality. In the face of competition in the world market, goods are produced and available is mass and most manufacturers adopt various marketing strategies to influence the behavior of their consumers around the world. In the digitalization era, rapid technological progress has enabled companies to widen their product portfolio globally and allowed new players to introduce radically new products, implement disruptive business models, and potentially establish novel markets (for an overview in the context of the internet of things (Decker and Stummer, 2017; Kannan and Li, 2017; and Wakenshaw, 2017). However, this development also

bears challenges, as practitioners lack reliable data about which smartness dimensions increase (or decrease) the consumption values of a product and how these affect product usage, thus making prediction of market behaviour difficult.

In the African market context consumer buying behavior are aspiration and hopeful when it comes to the influences of consumer decisions (Freudenthal & Mook,2003). They further stated that television and radio are ranked as the most important and trusted channels for consumers to make purchasing decisions in the African market. Sun and Zhang (2006) found out that Africans exhibit a loyal behavior to international brands as compared to locally made brands and this has affected infant industries in the home market. Specifically, Price is one of the major determinant of consumer buying behavior in Nigerian market. Most Consumers in Nigeria considers the price of certain product as compared to other related brands before making a purchase decision. Most consumers in Nigeria exhibit impulse and curiosity buying behavior. Therefore manufacturers of brand adopts various marketing and promotional strategies that can easily stimulate the interest of the consumers towards making a purchase decision

However, Product intelligence refers to collecting, examining, and acting on information about how users interact with their product (Ziuznys, 2022). It's mostly done by analyzing customer data to develop a better product and enhance user satisfaction. Furthermore, Organization can analyze customer reviews about their competitors' products and find a way to implement necessary adjustments to overcome the competition. User behavior data is one of the most important factors that come into play while trying to improve the product. For instance, one example could be the laptop industry. Every time a user interacts with a laptop, it collects behavioral data that allows the manufacturers to come up with new-and-improved features to alleviate some of the struggles and improve user experience. This type of customer data gives the brand direction and focus on the most important aspects that require more development. With the rise of e-commerce and the increasing impact of online touch points, and peer-to-peer influence within the path to purchase, the role of ratings and reviews is critical to generate authentic product intelligence. Product Intelligence is a consumer-centric approach that provides critical knowledge of products features that drive overall product satisfaction through the analytic combination of review text and star ratings. In addition, product intelligence is the main strategy that helps Apple stay competitive in the smart phone industry. Without it, they would be at serious risk of losing market share to competitors. Product intelligence is crucial because it drives customer loyalty. In fact, 74% of consumers report that the quality of a brand's products is the most important factor in keeping their loyalty. Several leading institutes and companies have also recognized that intelligent products will become important in the near future and set up specialized laboratories to conduct research on the integration of IT into new consumer products and people's living environment. The increasing importance of intelligent products has been previously recognized in the marketing literature. Watson et al. (2002) lay a conceptual foundation for thinking about future marketing based on ubiquitous networks. Physical products will be equipped with information and communication technologies and form extensions of these networks. As such, they may fulfill critical tasks in, for example, personalizing the communication between firms and their customers (Watson et al, 2002).

Despite the above developments, no empirical evidence currently exists on whether and how product intelligence affects consumer buying behavior. This paper intends to fill a part of this gap. First, i provide a conceptualization of product intelligence, based both on the literature and exploratory interviews with practitioners. Second, i develop a conceptual framework where we hypothesize that product intelligence influences consumer buying behavior through innovation attributes (e.g., Perceived complexity, perceived compatibility, and perceived related advantages). In light of the above, we hypothesize that product intelligence influences consumer buying behavior indirectly through its impact on the innovation attributes of relative advantage, compatibility and complexity. Thus,

H0$_1$: The relationship between product intelligence and consumer buying behavior is not mediated by perceived complexity

H0$_2$: The relationship between product intelligence and consumer buying behavior is not mediated by perceived compatibility

H0$_3$: The relationship between product intelligence and consumer buying behavior is not mediated by perceived relative advantage

So far, only a relatively small number of empirical studies have addressed adoption of smart consumer products. This research contributes to this stream of research in that it investigates another interesting smart product, namely, mobile phones, and in that it also examines brand effects for this smart product.

## LITERATURE REVIEW

**Conceptual Clarifications**

**Product Intelligence**

Product intelligence can be seen an automated system for gathering and analyzing intelligence about the performance of a product being designed and manufactured, such that this data is automatically fed back to the product managers and engineers designing the product, to assist them in the development of the next iteration or version of that product. The goal of product intelligence is to accelerate the rate of product innovation, thereby making the product and its owners more competitive and increasing customer satisfaction. Product intelligence is often applied to electronic products, but it is not necessarily limited to electronic products (Freudenthal & Mook, 2003). The conceptualization of product intelligence views it as a second-order construct that is formed as a combination of the six intelligence dimensions (i.e., autonomy, ability to learn, reactivity, ability to cooperate, humanlike interaction, and personality). Thus, the dimensions are seen as defining characteristics of the construct (Jarvis et al. 2003) and it is changes in the dimensions that are expected to cause changes in the construct, not the other way round; an increase in any dimension (irrespective of whether it is accompanied by an increase in the other dimensions or not) will result in an increase in overall product intelligence.

Product intelligence indirectly influences consumer behavior, through the perceived innovation attributes of relative advantage, compatibility and complexity taken from the diffusion literature. Relative advantage is defined as the degree to which an innovation is perceived as superior to the idea it supersedes (Rogers, 1995). An innovation can be superior in terms of economic profitability, social prestige, convenience, or other benefits. Compatibility is the degree to which an innovation is perceived as consistent with existing values, past experiences, and needs of potential adopters (Rogers,1995). A product that is more compatible fits more closely with the individual's way of living than a product that is less compatible. The complexity of an innovation concerns the degree to which an innovation is perceived as relatively difficult to understand and use. Relative advantage, compatibility and complexity are the three most important (out of five) attributes from the innovation adoption literature that either positively (relative advantage, compatibility, observability and trialability) or negatively (complexity) affect the rate of adoption.

In this context, a meta-study by Tornatzky and Klein (1982) showed that only the innovation attributes of relative advantage, compatibility and complexity consistently influenced innovation adoption. Also, previous research showed that these three innovation attributes play more important roles for purchase intention and innovation adoption than observability and trialability (Plouffe et al., 2001). Moreover, observability and trialbility played an insignificant role for consumers that already gained experience in the use of a certain innovation (Plouffe et al. 2001). As such, we only consider the innovation attributes of relative advantage, compatibility, and complexity as relevant for our study. We expect product intelligence to influence consumer buying behavior through the innovation attributes of relative advantage, compatibility, and complexity because it is consumers' perceptions that eventually determine the emotional evaluation of a product and not the product characteristics (here, the intelligence dimensions) themselves. In the diffusion literature, for example, the perceptions of potential adopters determine whether an innovation will be adopted.

**Reactivity**
Reactivity is the third dimension of intelligence and refers to the ability of a product to react to changes in its environment in a stimulus/response manner (Bradshaw, 1997). A good example of a product that is reactive is the Philips Hydraprotect hairdryer. This hairdryer lowers the temperature of the air when the humidity of the hair decreases, thereby preventing damage to the hair caused by hot air. Reactivity can be distinguished from the ability to learn in that reactivity refers to instant reactions to the environment. In contrast to the ability to learn, no internal models of the environment are needed for these reactions and reactions are constant over time. In one of the expert interviews, a respondent addressed reactivity describing an intelligent product as "a product that observes something and takes action on the basis of that observation
.
**Ability to Cooperate**
The fourth dimension of product intelligence is the ability to cooperate with other devices to achieve a common goal. According to Nicoll (1999), the age of discrete products may be ending. Instead, products are becoming more and more like modules with in-built assumptions of their relationships with both users and other products. An increasing number of products are thus able

to communicate not only with their users, but also among themselves (Nicoll, 1999). For example, desktop computers cooperate with other products; they can be attached to scanners, printers, musical instruments, video cameras and so on. Other obvious examples of products that can cooperate are mobile phones and PDAs. The user of these products can write emails on the PDA and send these via the mobile phone. One interviewee also observed that intelligent products are frequently able to cooperate: "Something that you see quite often in intelligent products is communication between separate products. One day it will be possible to interconnect all products".

**Humanlike Interaction**

The fifth dimension, humanlike interaction, concerns the degree to which the product communicates and interacts with the user in a natural, human way. Within the context of agents, Bradshaw (1997) speaks of 'knowledge communication ability' that refers to an agent's ability to communicate with persons and other agents with language resembling human-like 'speech acts'. Similarly, intelligent products are sometimes able to communicate with their users through voice production and recognition. For example, car navigation systems produce speech and some of them also understand speech. There is no need for users to push any buttons during driving and the driver is guided to his/her destination through a dialogue with the navigation system

**Personality**

The last dimension, personality, refers to an intelligent product's ability to show the properties of a credible character. This dimension was also distilled from the literature on software agents in which Bradshaw (1997) discusses the property of an agent to have a 'believable personality and emotional state.' Well-known examples of agents with personality are the paperclip- or Einstein assistants in Microsoft Office that suggest that 'someone' assists the users. Physical products can also be equipped with an interface that shows personality characteristics. Levels of personality vary from interfaces showing only a caricature face to interfaces with the ability to show emotions (Cassell and Thorisson, 1999). An example of an intelligent product in the marketplace with a high level of personality is Sony's AIBO that can be angry, happy or sad

**Benefits of Product Intelligence**

The benefits of product intelligence are endless. Here are some of the benefits of using product intelligence:

    **i.** Gives you control: From gauging how users feel about a product at a certain time to allowing them to submit feedback, product intelligence lets you control every aspect of the user experience.

    **ii.** Helps you build on boarding experiences users love: Product intelligence has powerful tools to improve onboarding and boost product adoption. From pushing users toward actions to announcing a new feature, organization can customize every experience to meet their goals.

    **iii.** Identifies consistent flaws: Product analytics helps organization identify flaws in the user experience, so they can create better experiences and solve problems before their next update.

iv.  Reduces customer churn: By measuring user happiness, organization will be able to custom-tailor features to create the experience customers crave and reduce customer churn in the process.

v.  Improves quality management: Tracking product development metrics gives companies greater control over quality management. This ensures that products are manufactured according to the precise specifications of product designers. Measuring product key performance indicators (KPIs) also gives companies more control over product quality.

vi.  Accelerates product innovation: Product intelligence gives companies the insights they need to innovate consistently. When they always have a 24/7 view of how people use their product, they can make innovation a consistent priority instead of something that's done every so often.

vii.  Helps product companies stay relevant: When companies don't focus on experience, they end up losing customers. Companies can use product analytics to make faster and better decisions, innovate products, and keep up with competitors. Product intelligence helps companies stay relevant by giving them the insights they need to evolve constantly.

## Guiding Principles for Product Intelligence

To get the most out of product intelligence, there are some guiding principles digital teams should follow:

i.  *Product teams must be collaborative and cross-functional*: While platforms and integrations are essential tools, great product experience comes from helping teams collaborate more effectively. This means that collaboration must be a top priority, not an afterthought. Modern product teams need to balance exploration, experimentation, and decision-making when working together to improve and create new products.

ii.  *Product teams must have complete access to data:* To improve products and make better decisions, product intelligence can't be bound by information silos all data must be accessible. From analytics to experimentation to customer data and behavioral targeting, data must be available for all product teams to easily access, monitor, and use.

iii.  *Usage tracking must be done ethically:* Product teams must be respectful of sensitive information and acknowledge customer concerns. This means being careful about what you track, how you track it, and what you use it for. Collecting and analyzing usage data to investigate patterns, opportunities, and trends is important for providing customers with the most value but make sure your team is protecting users by being transparent about what you track and how you track it.

## Theoretical Review

This work anchors on Howard Sheath Theory. John Howard and Jagadish Sheth put forward the Howard Sheath model of consumer behavior in 1969, in their publication entitled, 'The Theory of buyer Behaviour'. The Howard Sheath Model is a sophisticated integration of the various social, psychological, and marketing influences on consumer choice into a coherent sequence of information processing. It aims not only to explain consumer behavior in terms of

cognitive functioning but to provide an empirically testable depiction of such behavior and its outcomes (Howard, 1977). The logic of the Howard Sheath model of consumer behavior summarizes like this. There are inputs in the form of Stimuli. There are outputs beginning with attention to a given stimulus and ending with purchase. In between the inputs and the outputs, there are variables affecting perception and learning. These variables are termed 'hypothetical' since they cannot be directly measured at the time of occurrence The Howard Sheath model of consumer behavior suggests three levels of decision making:

The first level describes extensive problem-solving. At this level, the consumer does not have any basic information or knowledge about the brand and he does not have any preferences for any product. In this situation, the consumer will seek information about all the different brands in the market before purchasing. The second level is limited problem-solving. This situation exists for consumers who have little knowledge about the market, or partial knowledge about what they want to purchase. In order to arrive at a brand preference, some comparative brand information is sought.

The third level is habitual response behavior. At this level, the consumer knows very well about the different brands and he can differentiate between the different characteristics of each product, and he already decides to purchase a particular product.

## METHODOLOGY

Quantitative Survey research design was adopted. The information collected was analyzed and used to make decisions and generalization about the characteristics of the population from which the sample is selected. In this study the total population of the study encompasses customers of selected mobile phone stores in Ikeja, Enugu Metropolis and Ado Ekiti, Nigeria. The probability sampling method was adopted in this study with the aid of Simple random sampling as it allows selection of the sample size quickly and efficiently, it also makes the sample unbiased by using the system to select the sample. Information or data was obtained from the primary source of data collection. Primary data was obtained through the administration of questionnaire to the respondents. The research instrument used in this research work was Questionnaire. This questionnaire was divided into two parts. Part A and Part B. Part A comprises questions demanding for the respondents bio-data, while part B comprises questions related to the research objectives. The questionnaire consisted of the six scales measuring the product intelligence dimensions and respondents were asked to evaluate the product they owned on each of these dimensions. In addition, measures for relative advantage, compatibility, complexity, and consumer satisfaction were included in the research instrument. The advantage scale was adopted from Cooper and Kleinschmidt (1987) and consisted of five items. The concepts of compatibility and complexity were measured with five items each (based on Rogers 1995). This study gathered information's in relation to the research objectives and the data obtained was presented and analyzed using Statistical package for Social Science while the hypotheses formulated was tested using correlation coefficient method

## RESULT

Hypotheses stated in this study was tested via correlation analysis. The results in Table 1 suggest several significant relationships between the examined variables. The results in Table 1 suggest several significant relationships between the examined variables.

| CONSTRUCT | FUNCTIONAL VALUE | VARIETY OF USE |
|---|---|---|
| Autonomy  Value | 0.142 | 0.164 |
| Reactivity  Value | 0.137 | 0.021 |
| Multifunctionality Value | 0.377 | 0.183 |
| Functional value → Use | | 0.241 |
| Emotional value → Use | | 0.689 |

*** p < 0.001; ** p < 0.01; * p < 0.05
Table 1. Estimated path coefficients

Findings with respect to the influence of product intelligence on consumer buying behavior indicate that perceived autonomy not only positively affects functional value but also affects the perceived emotional value (however, both results are subject to a relatively low significance level). The reason might be that autonomy enhances emotional experiences of usage. Interestingly, results regarding reactivity and multi functionality are in opposition to one another. Reactivity has a significant negative effect on functional value and no significant effect on emotional value. The negative effect of reactivity on the functional value might be explained through the notion of high complexity and the (potential) disturbance that comes with this mobile phones feature, which may reduce usability (Rijsdijk et al., 2007). Furthermore, reactivity seems not to deliver an emotional experience to customers. Multi functionality, on the other hand, strongly increases functional value, and it also increases the emotional value triggered by using the smart phones. Emotional experience also plays an important role, and, indeed, we observe a similar relationship for product usage. Consumers who perceive high functional or emotional value are accordingly willing to use their mobile phones in more ways, and may utilize the full spectrum of features.

## CONCLUSION

The findings of this study revealed that more intelligent products are better adapted to their users. Just like human and animal intelligence are described as the ability to adapt to the environment, this also seems to be the case for intelligent products. Products that are able to interact with the user in a humanlike way are more compatible with existing mental frameworks of potential adopters; hence adopters have to put less effort in learning how to use these products. Also, products that are more autonomous, able to learn or reactive can be less demanding for users and approach a level of symbiosis in which interaction with their users becomes more natural or even invisible. Along with an increase in relative advantage and compatibility, product intelligence also moderately increases the complexity that consumers perceive. However, certain marketing techniques may reduce such complexity. Research shows, for instance, that using consumers'

existing knowledge structures in promotional messages facilitates consumer understanding (Gregan-Paxton and John, 1997).

Specifically, product intelligence has a positive impact on relative advantage and compatibility, which, in turn, both positively affect consumer buying behavior. These findings suggest that consumers appreciate products not for their intelligence itself, but because of the resultant relative advantage and compatibility they perceive in them. Product intelligence also positively influences perceived complexity, which, however, has a negative impact on consumer buyng behavior. This result suggests that consumers are less satisfied with products with a higher intelligence because of their complexity

This study result also indicated that Manufacturers of IT equipment believe new "product intelligence" analytic tools are a significant opportunity that will drive many new technical and business values for their customers. Also, in this day and age, consumers have more choices as they are more connected. From phones to tablets to watches, our screens are turning into experience snobs. It takes a lot to make someone like a product. A product either needs to make consumers more effective at work, entertain them, inspire them, or inform them. But if it doesn't, they'll quickly move on to something new. Loyalty must be earned. That's why companies are offering high-quality products that give consumers the experiences they want. They're competing to earn their loyalty. With product intelligence, they're able to use data to better understand consumers relationships with the products they love using.

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# Relationship between Job Stress and Work Outcomes among Health Workers

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***Abstract:*** *This study evaluated the relationship between job stress and work outcomes among health workers in Bauchi State. The study adopted the cross-sectional survey in its investigation of the variables. Primary source of data was generated through self- administered questionnaire. The target population of this study comprised of 768 health workers (doctors, nurses and lab scientists) serving in Abubakar Tafawa Balewa University Teaching Hospital Bauchi and Bauchi State Specialist hospital, from which 260 individuals were chosen as samples utilizing the Krejcie and Morgan (1970) table. The study adopted the simple random sampling technique as it grants each respondents equal opportunities to be selected. The research instrument was validated through supervisor's vetting and approval while the reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. Data generated were analyzed and presented using both descriptive and inferential statistical techniques. The hypothesis was tested using the Spearman's Rank Order Correlation Statistics. Findings from the data analysis revealed that job stress positively and significantly related with work outcomes of health workers in Bauchi state. The result of the findings recommends that effective job design should be put in place to ensure a hitch free working experience. This goes to say that a healthy working environment should be provided by the Government for better service delivery.*

***Keywords:*** *Job Stress and Work Outcomes*

## INTRODUCTION

Work outcomes are those that impact the organization more than the individual (Akram, Lei, Haider, & Hussain, 2020). Previously, researchers Brady, Credé, Harms, Bachrach, and Lester, (2019), have found work outcomes to have significant relationships to role stressors. Whereas, other work outcomes (e.g., performance and emotional exhaustion) either have not been found to have significant relationships with role stressors or do not have as strong of a relationship (Liu, Zhang, Garcia-Barrera & Rhodes, 2021).

For the last few years, job stress is considered as a critical problem in the developed and developing countries due to its adverse effects on individuals and organizations (Hongchao, Shaoping, Larry, Dooley & Congying, 2020). In work settings, stressful situations are always expected which can affect the employees' physical condition and competence. This condition, ultimately negatively affects the employees' attitude and working behavior (Liang, Lin & Wu,

2018). Research studies have also confirmed the unpleasant working conditions results in psychological and physical health and employee attitude and behavior (Kimberly, French, Tammy, Allen, Tyler & Henderson, 2019). Stress has positive and negative results with strain. Due to inconsistent results, stress has been acknowledging as 'good' or 'bad' in terms of relation with performance (Mazzola & Disselhorst, 2019). In this regard, based on the Lazarus and Folkman stress theory, Cavanaugh, Boswell, Roehling & Boudreau recognized stressors as challenge and hindrance stressors. According to Giorgi, Arcangeli, Ariza-Montes, Rapisarda and Mucci, (2019), there are work stressors that exist in the workplace usually job stressors. Job stressors refer to job demands such as workload, time urgency, job responsibility, and job complexity that are viewed by employees as rewarding work experiences that create opportunities for personal growth.

Job stress can be defined as an individual's response to external stimuli in the environment. Recent studies have indicated that job stress has a major effect on individual physiology, psychology, and behavior e.g., job performance (French, Allen & Henderson, 2019). However, previous studies have mostly focused on the negative effects of job stress on performance, which argue that higher pressures can make individuals perform less effectively on tasks that call for tolerance and concentration, subsequently resulting in lower productivity and job quality (Deng, Ma, Yang & Tian, 2019). Following the development of positive psychology, Li indicates that job stress can be divided into two dimensions: hindrance stress and job stress (Li, Zhang, Li & Lu, 2021).

Job stress refers to the job stress that individuals feel that they can overcome and that benefits their career development, such as job load, job responsibility, and time urgency. Therefore, this study examines the impact of job stress on job performance among healthcare workers in hospitals, which responds to the call for more studies on different types of job stress (Bhattacharya, Camacho, Kimberly & Lukens, 2019) and provides empirical evidence of the differences in the effects of these stresses on job performance.

Several studies have found that healthcare workers are the key to improving public service quality. However, they generally suffer from high levels of job stress and this is likely to inhibit their Public service motivation and then leads to poor job (Deng, Guo, Ma, Yang & Tian, 2019).

Although reasons for the interest in the topic of work stress vary, it is obvious that one important reason is that employees in the workplace are experiencing increased amounts of stress. For example, surveys conducted over the last four decades indicate that half to three-quarters of today's workforce describe their work as very stressful and that employees generally perceive their stress levels to be much greater than what they experienced 5 to 10 years ago (Arnetz, Goetz, Arnetz & Arble, 2020).

Indeed, constantly increasing levels of work-related stress have made this generation of employees more stressed than their predecessors, to the extent that some have labeled this trend an epidemic (Deng, Liu, Guo, Gao, Wu & Yang, 2021). Unfortunately, in a work environment characterized by increasing workloads, broadened job scopes, limited economic resources, and corporate downsizing there is an expectation that this trend will continue in the future. Absenteeism among health workers, leading to insufficient staffing levels, increased organizational costs and poor quality of care (Chelladurai & Kim, 2022). Previous studies have shown that job stress can indirectly affect job performance through mediator variables. Job satisfaction is mainly considered as the mediator.

Work stressors are damaging to worker health and well-being. This assertion is supported by decades of research and founded upon several theoretical perspectives (Stiglbauer, & Kovacs, 2018). According to Selye and Gabbiani, (2019), stress is the state manifested by a specific syndrome which consist of all the nonspecifically-induced changes within a biological system. Seyle pointed that both eustress and distress can arouse nonspecific responses, but eustress causes much less damage than distress. According to the appraisal theory of Lazarus, (2021), secondary appraisal activity is a crucial feature of every stressful encounter because the outcome depends on what can be done.

Too much stress contributes to serious psychological disorders such as job burnout, anger, frustration, anxiety, depression, and nervousness (Rothbaum, 2021), as well as physical health issues such as headache, dizziness, neck pain, and sleeping problems (Brady, Credé, Harms, Bachrach & Lester, 2019). In Spain, scholars have revealed that stressors perceived by school teachers hamper them from fully meeting learning objectives and cause burnout, anxiety,and depression (Giorgi, Leon-Perez, Pignata, Topa & Mucci, 2020). Particularly, work-related stress was associated with teachers' engagement and occupational well-being (Pöysä, Pakarinen & Lerkkanen, 2021).

However, previous studies have mostly focused on the negative effects of job stress on performance, which argue that higher pressures, work overload, scope of responsibilities can make individuals perform less effectively on tasks that call for tolerance and concentration, subsequently resulting in lower productivity and job quality (Abbas & Raja, 2022). It has also been found that when individuals are exposed to higher pressures, they will become less sensitive to others which is manifested in a decrease of helping and an increase in aggression (Deng, Guo, Ma, Yang & Tian, 2019). Based on this premise, the present study aims to examine the relationship between job stress and work outcomes of healthcare workers in Bauchi State.

The study would provide answer to the following research question:

i.  What is the relationship Job Stress and Work Outcomes among Health Workers in Bauchi State?



**Figure 1:**    *Conceptual Framework Showing relationship between study variables*

## LITERATURE REVIEW

**Theoretical framework**

## The Transactional Model of Stress
The Transactional Model of stress forwards that stressors (defined as stimuli in the environment that can be perceived as demands, constraints, or opportunities) can cause strains when they are

appraised as a threat and when coping resources are not available to mitigate the negative consequences of the stressors (Lazarus & Folkman, 1984). Thus, strains are expected to increase when a stressor is appraised as a hindrance. Likewise, the appraisal of a stressor as a challenge is expected to mitigate the deleterious consequences.

A stressor appraised high on hindrance will have the strongest positive relationship with strains, particularly when the appraisal of the stressor as a challenge is low (Podsakoff, LePine & LePine, 2007). For this reason, this study specifically looks at both a two-way interaction of the moderating effect of stressor appraisal (hindrance or challenge) on the relationship between perceived role stressors (e.g., role ambiguity, role conflict, and role overload) and strains (e.g., anxiety, tedium, general well-being, lack of organizational commitment, turnover intentions, and job satisfaction). It also examines the three-way interaction of hindrance appraisal and challenge appraisal of role stressors on strains. Taking into consideration Hollebeek and Haar (2012) findings, stronger deleterious outcomes (such as higher anxiety, lower organizational commitment, and higher turnover intentions) are expected when job stressors are appraised as low and hindrance stressors are appraised as high than when job stressors are appraised as high and hindrance stressors appraised as low or when they are appraised the same. Therefore, the assumption is that participants' appraisal of a stressor as a hindrance will mitigate the ameliorative effects that the appraisal of the same stressor as a challenge would otherwise have on strains (Shinn, Rosario, Mørch & Chestnut, 1984).

## Concept of Work Outcomes

Work outcomes are those that impact the organization more than the individual (Walk & Handy, 2018). The work outcomes addressed in the current study are organizational commitment, turnover intentions, and job satisfaction. Previously, researchers (Brady, Credé, Harms, Bachrach & Lester, 2019), have found these work outcomes to have significant relationships to role stressors. Whereas, other work outcomes (e.g., performance and emotional exhaustion) either have not been found to have significant relationships with role stressors or do not have as strong of a relationship (Harmsen, Helms-Lorenz, Maulana & van Veen, 2018).

This is a framework for understanding, describing, and performing your job duties, roles, and responsibilities (Sternberg, Wagner & Okagaki, 2018). You can use this as a template to create a useful job description that you would actually use while you are in a job. It divides a job into three categories: activities, outputs, and outcomes. To be successful in your job, it is useful to understand the difference between these, and to achieve an optimal balance spending appropriate time and energy on each (Brown, 2020).

## Concept of Job Stress

In today's fast paced world, it is impossible to live without stress (Priya, Garg & Tigga, 2020). The nature of work has undergone drastic changes with stress appearing almost automatically. It is a worldwide phenomenon that occurs in various forms in every workplace. In today's work life, employees are often required to work strenuously for over long period of time as their responsibilities keep rising (Svinndal, Jensen & Rise, 2020). Stress is common in every type of job and people must face it in every facet of life. Stress have been defined in various ways over

the years. According to Ivancevich, Konapske and Matteson, (2006), stress is scientifically described as that response of an individual to the outcomes of the external environmental conditions that place excessive psychological, behavioural, and physiological pressures on that individual. It involves how an individual respond to external pressures. Ehsan and Ali, (2019) defined as a dynamic condition in which an individual is confronted with an opportunity, constraints, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.

The World Health organisation (WHO) defines occupational stress as the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. According to Fonkeng, (2018), stress is simply a reaction of an employee when certain demands, pressures and professional aspects which are to be faced at the work place do not match their knowledge levels which create or poses a challenge and threat to the capabilities of the employee which in turn would create a struggle for existence in terms of being employed in a place. This therefore implies that, stress exists when an environmental situation presents a demand threatening to surpass an employee's capabilities and resources (Daniel, 2019). From the descriptions, it can therefore be contending that stress is an excessive demand that affect a person physically and psychologically. It has become a common experience among employees as they perform their day-to-day jobs.

Many researchers aver that stress at work place has an impact to performance in one way or the other. According to Fonkeng, (2018), job stress makes the organisational performance go down. It is likened to a chronic disease that is caused by conditions in the workplace that negatively affect an employee's performance (Darvishmotevali & Ali, 2020). It is normal experience that occurs in reaction to situations that make an employee uncomfortable and on the other hand it may help one to rise above challenges. If that is the case, it will have a positive impact as it can enable an employee to improve on their performance which will result in increased employee motivation at work, innovation and problem-solving. According to Adom, Chukwuere and Osei, (2020), good stress which is scientifically referred to as eustress is a positive result of stressful occurrences which creates motivation in people who in turn rise beyond their challenges that they may face to succeed in life. However, stress can be managed up to certain extent after which it becomes negative and negatively affect the employee's performance. Similarly, Oludayo, Falola, Obianuju and Demilade, (2018), explained the importance of job stress as emphasized by employers on how to manage and reduce it through practical guidelines. Among this includes balancing of work life, fair work load, open communication and providing a conducive working environment. Its however necessary for management to monitor employees' stress level because an overly stressed employee will certainly not perform well at work (Fonkeng, 2018).

This is especially so in a microfinance institution in Cameroon where employees have direct contact with customers as the stress will act out on their frustrations with customers, thus ruining the image of the organisation.

**Relationship between Job Stress and Work Conditions**
A recent Meta– analysis found that hindrance stressors (organizational politics, red tape, role ambiguity, and in general those demands unnecessarily thwarting personal growth and goal attainment) had a negative effect on organizational performance (Webster & Adams, 2020). On the other hand, so called job stressors (high workload, time pressure, high responsibility and in general those demands that viewed as obstacles to be overcome in order to learn and achieve)

were found to have effect on motivation and performance. Mujika, Halson, Burke, Balagué and Farrow, (2018), indicate that stress leads to improved performance up to an optimum point. Beyond the optimum point, further stress and arousal have detrimental effect on performance. Therefore, healthy amounts of eustress are desirable to improve performance by arousing a person to action. It is in the midrange of the curve that the greatest performance benefits from stress are achieved.

Workers are increasingly exposed to stressful work environments as a result of changing work expectations including tighter deadlines, constant and almost instantaneous communication and increased production tar-gets set with seemingly little consideration for individual workload (Virine & Trumper, 2019). Recently, this has been played out within a context of often unstable and shrinking resources as companies restructure (Cohen, Hunter & O'Donnell, 2019).Approximately, 31% of the Canadian labor force experiences chronic work stress either alone or in combination with chronic physical condition and/or a psychiatric disorder (Dobson, Vigod, Mustard & Smith, 2020).Since the groundbreaking work by Chase-Dunn and Almeida, (2020), co-pious studies have reported links among job characteristics and job strain as well as mental health problems. In addition, evidence is mounting, regarding the negative impact of work stress on physical health (Talevi, Socci, Carai, Carnaghi, Faleri, Trebbi & Pacitti, 2020). Moreover, the presence of chronic work stress seems to amplify effects of psychiatric disorders and chronic physical conditions on disability (Hamouche, 2020).

Higher odds of chronic work stress are associated with particular job characteris-tics (Vander, Molen, Nieuwenhuijsen, Frings-Dresen & Groene, 2021). For example, greater autonomy relative to psychological demand and greater skill discretion are related to greater likelihood of reporting chronic work stress whereas greater social support at work is associated with lower odds of reporting chronic work stress (Fleischmann, Carr, Stansfeld, Xue & Head, 2018).Even after controlling for the contributions of job characteristics, certain occupations are also associated with chronic job stress (Li, Chen, Tuckey, McLinton & Dollard, 2019).However, results in the literature are not consistent regarding the occupations that are most exposed to jobstrain (Miranti & Li, 2020).However, it has been suggested that some of the differences could also be related to differences in commitment to the organization (Ćulibrk, Delić, Mitrović & Ćulibrk, 2018).Job characteristics also appear to have different impacts on men and women. For example, there is a large proportion of men with depression who have high job strain whereas there is a large proportion of women with depression who have low social support in the workplace (Miranti & Li, 2020). Long working hours are associated with depression in women. Acording to Holmberg, Caro and Sobis, (2018), there is also a significant body of work examining the relationship between work satisfaction and mental health status. A recent meta-analysis based on 500 reported studies found a strong correlation be-tween job satisfaction and mental healthstatus (Weber, Unterrainer & Höge, 2020). (Allan, Batz-Barbarich, Sterling and Tay, (2019) note that occupational stress occurs when external demands and conditions do not match a person's needs, expectations or ideas or exceed their physical capacity, skills, or knowledge for comfortably handling a situation." This suggests that two immediate sources of stress for workers are their working conditions and themselves. But, rather than two distinct entities, Stich, Tarafdar, Stacey & Cooper, 2019) indicate that stress is also related to the interface between the organization and the individual including considerations regarding person-environment fit and expectations. They go on to suggest that the most effective interventions

address both the person and the environment. However, there have been few studies examining the relationship between perceived responsibilities by workers and job characteristics and experiences of stress (Wegman, Hoffman, Carter, Twenge & Guenole, 2018). Yet, this type of information is essential to developing effective interventions that target both the person and the environment.

The study was guide by the following hypothesis
Ho$_1$:    There is no significant relationship between job stress and work outcomes among Health Workers in Bauchi State

## METHODOLOGY
The cross-sectional survey approach was used to collect data for the study.

The target population of this study comprised of 768 health workers (doctors, nurses and lab scientists) serving in Abubakar Tafawa Balewa University Teaching Hospital Bauchi and Bauchi State Specialist hospital, from which 260 individuals were chosen as samples utilizing the Krejcie and Morgan (1970) table. The study adopted the simple random sampling technique as it grants each respondents equal opportunities to be selected. With the help of the SPSS Package version 23, descriptive statistics and Spearman's rank order correlation were employed for data analysis and hypothesis testing.

**Table 1. Reliability Statistics for the Instruments**

| S/No | Dimensions/Measures of the study variable | Number of items | Number of cases | Cronbach's Alpha |
|------|-------------------------------------------|-----------------|-----------------|------------------|
| 1 | Job Stress | 4 | 243 | 0.789 |
| 2 | Work Outcomes | 4 | 243 | 0.836 |

*Source: Research Data, 2022*

All of the dimensions and measures in our study had significant reliability estimates greater than 0.7 Cronbach's Alpha.

## DATA ANALYSIS AND RESULTS

**Bivariate Analysis**
The hypothesis test included the bivariate hypothesis Ho$_1$ which was expressed in the null form. To conduct the analysis, we used the Spearman Rank (rho) statistic. The 0.05 significance level is used as a threshold for the probability of either accepting or rejecting the null hypotheses at ($p > 0.05$).

***Table 2: Correlation Matrix showing Relationship between Job Stress and Work Outcomes***

| | | | Job Stress | Work Outcomes |
|---|---|---|---|---|
| Spearman's rho | Job Stress | Correlation Coefficient | 1.000 | .857** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 243 | 243 |
| | Work Outcomes | Correlation Coefficient | .857** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 243 | 243 |

**. Correlation is significant at the 0.01 level (2-tailed).
***Source: Research Data, 2022 (SPSS output, version 23.0)***

The table above illustrates the test for the previously postulated bivariate hypothetical statements.

$Ho_1$: There is no significant relationship between job stress and work outcomes among Health Workers in Bauchi State

The correlation coefficient 0.857 shows that there is a strong and positive relationship between job stress and work outcomes. The p value $0.000 < 0.05$ indicates that the relationship is significant. Therefore, the null hypothesis is hereby rejected and the alternate upheld. Thus, there is a significant relationship between job stress and work outcomes among Health Workers in Bauchi State.

**Discussion of Findings**
Using the Spearman's rank order correlation tool and a 95% confidence interval, the data demonstrated a strong and positive significant relationship between job stress and work outcomes among Health Workers in Bauchi State. Our findings also have implications for stress measurement. We distinguished be-tween type of stress by relying on the nature of the job demand with which the stress was associated. We then investigated whether reported levels of stress (associated with the specific job demands) differentially related to attachment-related outcomes. However, other research Johnson, Willis and Evans, (2019) has focused on experiencing stressors or job demands in the work environment (i.e., the source of stress) rather than the associated stress level. It was important for our purposes to focus on an individual's perceived level of stress since this appraisal is likely to be a motivating force for attitudes, retention, and withdrawal behavior (Sim & Lee, 2018). By focusing on stress experienced due to various job demands, we were able to demonstrate that one type of stress, specifically challenge stress, may have both beneficial (in terms of work outcomes) and deleterious (in terms of strain) effects while another, specifically hindrance stress, may have consistently undesirable effects (Altena, Baglioni, Espie, Ellis, Gavriloff, Holzinger & Riemann, 2020). Related, prior research has shown a curvilinear relation between challenge-related job demands (e.g., job complexity, scope) and measures of strain. More specifically, though these work characteristics are generally

linked to positive outcomes, there is evidence of increased strain at high levels of job scope, complexity, and the like (Wang, Johnson, Nguyen, Goodwin & Groth, 2020). We took a somewhat different approach, focusing on the experienced stress associated with challenging job demands, and found that this stress relates positively to strain (even at moderate levels) despite its positive association with attachment-related variables. Yet, consistent with the above research, we might expect a deleterious effect on attachment variables at high levels of challenge-related stress. Post hoc analysis of our data did not find this curvilinear relation, again supporting the distinction between experiencing stressors and experiencing stress (Wadey, Evans, Hanton, Sarkar & Oliver, 2019). Future research could include measures of both job demands and stress levels, investigating the process by which demands influence reported stress levels, why employees vary in their perceptions, and how these factors influence work outcomes. Another implication for stress measurement is the suppression effect found in McKay, Przybysz, Cavanaugh, Horvatits, Giorgianni and Czajka, (2021) and in the present study. This finding indicates that unless the variance common to experiencing stress more generally is controlled, the relation between challenge-related stress and desirable work outcomes may not be identified. This also suggests, however, that the benefit of challenge-related stress is not absolute. Indeed, challenge-related stress may have associated frustration or disruption, as evidenced by the positive correlation between the two types of stress (Mansell, 2021).

## CONCLUSIONS AND RECOMMENDATION

The objective of the study was to examine the relationship between the job stress and work outcomes of health workers, the study hypothesized that the variables have no significant effect on the health workers level of commitment. Furthermore, this study explored some challenges facing heath workers in hospitals in Bauchi in the course of providing their services to their clients.

Generally, the study collaborated the frequently revealed negative effects of job stress and the study found a significant relationship with work outcomes. The study reveals that health workers do stressful jobs due to stressors like long working hour, workload, deadline, management pressure etc. has been positive related to work outcomes of health workers. It also statistically proved that health workers well-being is psychologically and physically depressed if stress prolong over a long period of time.

The study thus recommends that:
  i.    Effective job design should be put in place to ensure a hitch free working experience. This goes to say that a healthy working environment should be provided by the Government for better service delivery.

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# Entrepreneurship Education and Entrepreneurial Skills amongst Undergraduate in Anambra State

## Abara Chinenye Gladys

***Abstract:*** *The study examined the examined entrepreneurship education and the enhancement of entrepreneurial skills among undergraduates in Anambra State. The area of the study was undergraduates in Anambra state. Questionnaire was used to collect data from students as it concerns entrepreneurial skills. The population of the study was 57710, and a sample size of 399 was determined using Borg & Gall (1973). The research adopted sampling techniques were purposive sampling. From the analyses tested, the study found out that, There is significant relationship between entrepreneurship education curriculum content and entrepreneurial skills in undergraduates in Anambra State. Facilities enhance entrepreneurial skills among undergraduates Anambra State. The study recommended that Entrepreneurship facilitators in the universities should endeavour to be more passionate and entrepreneurs at heart so as to be able to inculcate same in students. Entrepreneurship facilitators in the universities should provide articulate guide to students in the choice of project/ business idea to instil in the students, continuous interest in the business idea even after school. Students should be encouraged by the facilitators beyond entrepreneurship practicals/projects, to kick- start the business ventures in a micro/ small level based on the skills acquired in the school. Universities management through the Centre for Entrepreneurship Development should always organize an exhibition programme on academic sessional basis, inviting stakeholders both from the public and private sectors, to evaluate students' entrepreneurial activities;*

***Keywords:*** *Entrepreneurship, Education, Entrepreneurial skills, facilities, unemployment*

## INTRODUCTION

### 1.1 Background to the Study

The rate of graduate unemployment in Nigeria has persistently been on the increase despite the enormous endowment of the country with human and natural resources. However, graduate unemployment is not peculiar to Nigeria or developing nations; it is indeed a long standing global phenomenon hence it has been a common trend in many countries to find graduates of universities not able to secure jobs several years after graduation (Twumasi, 2013). In tackling the global crisis of graduate unemployment, policy makers and stakeholders in developed countries such as England, USA, and Germany, advocated a refocus of educational systems towards acquisition of vocational and technical skills to enhance smooth transition into jobs for school leavers particularly graduates of universities. This owes to the fact that education is important to the development of any society particularly because the goals of wealth creation, poverty reduction and value re-orientation can only be attained and sustained through an efficient

educational system which impacts relevant skills, knowledge, capacities, attitudes and values into individuals (Agi & Yellowe, 2016).

The goal of entrepreneurship education is to empower graduates, irrespective of their areas of academic specialization, with knowledge and skills that will enable them to create their own income generating ventures, even if they are not able to secure jobs in the public sector. Entrepreneurship education is an orientation that seeks to transform graduates from job seekers into job creators in order to reduce graduate unemployment and it increases students' interest in entrepreneurship as a career (kinsiku, & Olubunmi, 2014), The rationale for introducing entrepreneurship course in universities curricular development is to help the students to acquire increased understanding of entrepreneurship. The focus is to equip them with relevant skills and competences that prepare the students to become entrepreneurs and managers of new businesses soon after graduation in order to increase their household income. Nevertheless, "social and commercial entrepreneurial entry is facilitated by strong property rights and government activism that impacts on entrepreneurship (Anyadike, Emeh, & Ukah, 2012).

In Nigeria graduate unemployment has undoubtedly become a herculean national canker of which every government has to deal with. A section of the public are of the view that job opportunities for new graduates are few whiles others contend that there are enough job opportunities, but the type of graduates produced from the institutions of higher learning are not all that suited for the available jobs (Aremu, & Adeyemi, 2011),. Most of the employers, therefore, select the fresh graduates who studied in the relevant fields for their jobs as trainees for a number of years before decision is taken either to hire them on full-time basis or as casual workers.

This problem has necessitated this research to evaluate entrepreneurship education in Nigeria and enhancement of entrepreneurial skill among undergraduates in Anambra State. The study is to research into the type of entrepreneurship education received by the participants that developed their abilities to create their own jobs as graduate entrepreneurs soon after their graduation.

## 1.3 Objectives of the Study

The major purpose of the study is to examine entrepreneurship education and the enhancement of entrepreneurial skills among undergraduates in Anambra State. Specifically, the study seeks to:

1) To determine the extent to which entrepreneurship education curriculum content inculcates entrepreneurial skills in undergraduates in Anambra State.

2) Find out the extent to which facilities are being put in place for the enhancement of entrepreneurial skills among undergraduates Anambra State.

## 1.5 Hypotheses

The following null hypotheses are formulated to guide the study and will be tested at 0.05 level of significance.

Ho: There is no significant relationship between entrepreneurship education curriculum content and entrepreneurial skills in undergraduates in Anambra State.

Ho: Facilities does not enhancement entrepreneurial skills among undergraduates Anambra State.

## REVIEW OF RELATED LITERATURE

### 2.1 Theoretical Framework

### 2.2.1 Human Capital Entrepreneurship Theory

Human capital entrepreneurship theory was postulated by Becker (1975) and derives its premise primarily on two factors which are; education and experience. The theory postulates that knowledge acquired from education and experience, is considered a resource that is diversely dispensed across individuals, which informs the basis for understanding the disparities in identification and exploitation of opportunities (Shane & Vankataraman, 2000). Davidson and Honig (2003) and Anderson and Miller (2003), affirmed that human capital factors as has a positive impact on the emergence of nascent entrepreneurs. This implies that Human capital theory of entrepreneurship creates a foundation for the place of education regarding entrepreneurial development which makes it particularly relevant to the context of entrepreneurship education (Chandler & Hanks, 1998). Specifically, in the context of this study Shane and Vankataraman (2000) argued that human capital factors are salient to idea generation, opportunity recognition and business planning. This according to Anderson and Miller (2003) implies that the components of an entrepreneurship programme have a prominent role to play in enhancing the development of abilities associated with successful entrepreneurial outcomes of an entrepreneurship programme.

### 2.2 Empirical Review

Agu and Chiaha (2013) carried out a study on entrepreneurship education and graduate employability in Nigeria. The purpose of the study was to investigate entrepreneurship education and employability of university graduates in Nigeria. Two research questions and two null hypotheses guided the study. Survey research design was used for the study. The sample for the study was 320 drawn from the population of 3,780 participants using a multistage sampling technique. Three instruments were used for the data collection. These include, structured questionnaire on graduate entrepreneurship education and employability skills (GEESQ), interview schedule and entrepreneurship content analysis. The structured questionnaire consisted of 25 items. The researchers found that entrepreneurship education enables graduates possess employability skills.

Aribaba (2011) studied an evaluation of the impact of technological innovative entrepreneurial development program on the performance of small and medium scale enterprises in Nigeria. the population of small and medium scale businesses residing in ondo state Nigeria. a sample population of one hundred and sixty (160) was randomly selected, the chi-square method was adopted for its analysis, while questionnaire was distributed for data collection, from the study it

was discovered that the effect of pattern of technological innovation entrepreneurial development program on the performance of small-scale business.

Teru (2015) examined the inadequate entrepreneurship skill among the Nigerian youths and its contribution to unemployment rate in Nigeria. Some variables were identified as possible problems of acquiring entrepreneurship skills in Nigeria. The study focuses on ways that is needed and used to conceive and commercialize business opportunities. Nigeria especially in the face of the global economic crisis and its energy crisis requires graduates who will be job "creators" and not job"seekers". Review of some related literature pertaining to the subject matter were identified in the study. Method used in collection of data was questionnaires. The method used in data analysis is table and simple percentage and the statistical tool used for testing of hypothesis was chi-square.

Eze (2017) assesses specific financing options available to SMEs in Nigeria and contribution to economic growth. The paper uses secondary sources of data, which were generated from the publications of Central Bank of Nigeria (CBN) statistical Bulletin and World Development Indicators (WDI). Asymmetric Ordinary Least Square (AOLS) estimation technique is employed to determine the effect of SMEs financing on economic growth in Nigeria. The analysis of the results suggested that there is an insignificant direct and indirect relationship between both positive and negative component of SMEs financing and Economic growth in Nigeria, this can be adduced to policy inconsistencies in SMEs financing.

Olayinka, Babatunde & Olusegun (2015) empirically examined the impact of entrepreneurship training and education on poverty reduction in Nigeria. The researcher adopted a stratified random sampling technique,500 entrepreneurs and apprenticeships were chosen from six recognized Local Government in Lagos State. The best linear unbiased estimator was used to test the relationship between entrepreneurship training and poverty reduction Nigeria. The result emanated from the findings suggests that there exist a positive and significant relationship between Entrepreneurship and poverty reduction and this was confirmed by the value of $R^2$ the coefficient of determination.

Fadeyi , Oke, Ajagbe, Isiavwe, Adegbuyi (2015) investigate the role of youth Entrepreneurs in nation building. A total of 40 upcoming entrepreneurial firms were randomly selected from a cross section of a population of firms located across Yaba Local Government Area  (LGA) of Lagos state. Participants were chosen through a simple random sampling technique. The responses to the questionnaires were complemented with personal interviews of some of the owners and managers of entrepreneurial firms. Participant's responses were analyzed with the use of simple percentages and are presented on pie and bar charts. This study finds that there is a significant relationship between competition, growth and development of entrepreneurial firms in Nigeria.

Diyoke,(2014) The article point out that entrepreneurship development in Nigeria is very slow despite all the numerous programme and schemes that have been designed by different government at different times. Descriptive survey research method was used in this study whereby data collected from both primary and secondary sources were analyzed using

percentages and mean scores, while the hypothesis were tested with Chi-square. The result indicated that apart from the known problems of inadequate capital and lack of competent and skilled management, there are other challenges that hinder entrepreneurial activities in the economy. The Nigerian business environment is facing a lot of problems as a result of epileptic power supply, violent clashes of militant groups, kidnapping, looting, arson, and so on.

## 2.3 Summary of Empirical

Having review both theoretical and empirical consideration of different authors that study on the related filed, it was observed that there was a lot of mixed findings, most authors agree that entrepreneurship development has impact on employment generation, while some disagree, most of the researcher used secondary sources, while some used primary. Some researchers are associated with weak methodology, while some short observation. Again most of the author's doest check for long and short run analysis of their variables. This study wills bridge this gap by employing a standard survey method.

## RESEARCH METHODOLOGY

### 3.1    Research Design

The study adopted a descriptive research design which helps in obtaining first hand data from the respondents which will enable sound empirical analysis. The primary source of data was used in this study because of the variables that were used in the study. Questionnaires were used to collect data from students selected for this study that are in entrepreneurial. The target population for this study comprises of all the student in the department of entrepreneurial studies (in the selected institutions) whose age group falls between. The population for the study is the students of Chukwuemka Odumegwu Ojukwu University (Uli Campus, Igbariam Campus and University Teaching Hospital Amaku), Nnamdi Azikwe University (University Main Campus and Nnamdi Azikiwe University Teaching Hospital; Nnewi) and Nwafor Orizu College of Education, Nsugbe. The total number of students in department of entrepreneurial studies in Nnamdi Azikiwe University is seven hundred and twenty-five (725), (NAU Student Affairs Unit, 2017) while that of Chukwuemeka Odumegwu Ojukwu University is five hundred (515), (COOU, Student Affairs Unit,2017) and Nwafor Orizu College of Education Nsugbe is fifteen thousand, four hundred and seventy-nine (15,479), (NOCEN, Student Affairs Unit,2017) making it a total number of 57, 710 students.

Nnamdi Azikiwe University has few campuses but the researcher made use of the university main Campus and Nnamdi Azikiwe University Teaching Hospital Nnewi as part of the size for the study. Also, the three campuses under Chukwuemeka Odumegwu Ojukwu University which are Igbariam Campus, Uli Campus and University Teaching Hospital Amaku were all taken into consideration. The main Campus of Nwafor Orizu College of Education Nsugbe was equally included in the study. Anambra state has a total of eight higher Education Institutions

### 3.2 Sample size determination

According to kerlinger (1973) simple random sampling is the method of drawing a portion of population or universe so that each member of the population has an equal chance of being

selected. The population size of the study is fifty-seven thousand seven hundred and ten (57,710) students

For the fact that it is practically impossible to conveniently handle all the respondents of the selected institution in Anambra state, the researcher applied the statistical formula devised by Taro Yamane (1964), which states:

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

Where
n= Sample size of the study
N = Population
1 = Constant value
e = Errormargin assumed to be (5%)

Applying this formula, we have

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

$$n = \frac{57710}{1+57710(5\%)^2}$$

$$n = \frac{57710}{1+57710(0.0025)}$$

$$n = \frac{57710}{1+105.58}$$

$$n = \frac{57710}{144.28}$$

Sample size = 399

### 3.3 Method of Data Analysis

Statistics such as frequency count and percentages were used in the analysis of personal characteristics while research hypotheses were tested using Simple Regression Analysis (SRA). The research hypotheses were tested at 0.05 level of significance. Analysis was carried out with the aid of Econometric view (E-view) version 9.0

## PRESENTATION ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the data obtained from the respondents through the administered questionnaire. Three hundred and ninety-nine (399) were administered among the staff of selected institution However, three hundred and seventy-two (372) copies of questionnaire were retrieved. Therefore, the analysis and interpretation of data were only based on the returned questionnaire.

## 4.1 Bio-data of the Respondents

Gender

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | MALE | 205 | 47.3 | 55.1 | 55.1 |
|  | FEMALE | 167 | 38.6 | 44.9 | 100.0 |
|  | Total | 372 | 85.9 | 100.0 |  |

**Sources: SPSS Output 2021**

The above table reveals that the two hundred and five of the respondents which represents (55.1) persons were male respondents, while one hundred and sixty-seven (167) respondents which represent 44.9% were female respondents. By implication, male respondents were more than female respondents by 10.1% in our selected population sample for this study. The implication of this is to enable us to know the number of female and male that successfully returned their questionnaire.

**STATUES**

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | MARRIED | 323 | 74.6 | 86.8 | 86.8 |
|  | SINGLE | 49 | 11.3 | 13.2 | 100.0 |
|  | Total | 372 | 85.9 | 100.0 |  |

**Sources: SPSS Output 2021**

In the table above, out of the three hundred and seventy-two (372) respondents, three hundred and twenty-three (323) of the respondents were married. While forty-nine (49) respondents which represent 13.2 percent are single. It is therefore glaring that the majority of the respondents are married as at the time of this study. Thus marital status table help us to know the number of single and married respondents that answered the distributed questionnaire.

**AGE**

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 18-25 | 278 | 64.2 | 74.7 | 74.7 |
|  | 26-30 | 94 | 21.7 | 25.3 | 100.0 |
|  | Total | 372 | 85.9 | 100.0 |  |

**Sources: SPSS Output 2021**

The table above shows that respondents whose age bracket falls between 18-25 yrs were two hundred and seventy-eight (278) which represents 74.7 percent. This is followed by those with age bracket of 26-30 years with ninety-four (94) which represents 25.3 %. The implication of this age distribution is to enable us to check if the questionnaire was directed to the right age group.

**4.2 Hypothesis Testing**

1. H0: There is no significant relationship between entrepreneurship education curriculum content and entrepreneurial skills in undergraduates in Anambra State.

**ANOVA**

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3242.5981 | 3 | 1794.190 | 6.742 | .015 |
| Within Groups | 6734.279 | 371 | 378.389 |  |  |
| Total | 77436.800 | 372 |  |  |  |

*Source: SPSS Version 21, 2021*

The test table reveal that wide significance value (F. sig<.05) indicate group differences. Since the F- value of 6.742 which has a significance of .015 is less than .05 (i.e .001<.05), there exist no group difference among the variables. Therefore, There is significant relationship between entrepreneurship education curriculum content and entrepreneurial skills in undergraduates in Anambra State.

**Hypotheses Three**

H0: Facilities does not enhance entrepreneurial skills among undergraduates Anambra State.

**ANOVA**

|  | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2839.200 | 1 | 1419.600 | 7.807 | .088 |
| Within Groups | 8597.600 | 371 | 505.741 |  |  |
| Total | 11436.800 | 371 |  |  |  |

**Source: SPSS, Version,** *2021*

From the regression result, we discover that in the F-statistics column the value for Management Stress is 7.807, while its probability is 0.88 since its probability is greater than 0.05% desired level of significance, we reject the null hypothesis and accept alternative hypothesis, which states Facilities enhances entrepreneurial skills among undergraduates Anambra State.

**CONCLUSION AND RECOMMENDATION**

**5.1. Conclusion**

The study which utilized evidence from available literatures examines entrepreneurship education and the enhancement of entrepreneurial skills among undergraduates in Anambra State. The review of the literatures revealed that the most difficult socio-economic problem facing undergraduates particularly in Anambra state is the growing number of unemployed youth roaming the streets. There are teaming numbers of youth without jobs, thereby affecting their socio-economic status. The research findings from most of the previous studies conducted

indicated that offering entrepreneurship education course is helping students in development of favourable entrepreneurial attitude and also has a positive effect on students' entrepreneurial attitude. Therefore, there is strong ascertaining that attitude plays very important role in determining the learning behaviours of students in schools. Thus, the current introduction of entrepreneurship education in the school curriculum is a welcome development. This is because it will be helpful in training, reorienting as well as motivating students toward entrepreneurial activities. The intentions of the students may be aroused and geared toward forming businesses at the end of their university studies. Furthermore, Entrepreneurs create value by shifting the resources of the society from lower to higher yields; Entrepreneurs practice should be aimed at a sound business practices but should bring a high integrity of their business with that of the society and its needs. An entrepreneur should look beyond the bottom line of monetary benefit and should have a higher sense of responsibility. Entrepreneurs are to be more ambitious by trying to tackle the major issues in the society which requires an immediate attention and bring about changes in the society, if this is done, Entrepreneurs will realize that they have gained self-esteem. They will feel good by "giving back to society"; they will as well feel they are new and recognized entrepreneurs for being socially responsible. The can work with a passion. They will be more successful in their business and will make a difference in the way entrepreneurship is done; ultimately the way they are seen by others will be changed.

## 5.2 Recommendation

i. Students should be encouraged by the facilitators beyond entrepreneurship practicals/projects, to kick- start the business ventures in a micro/ small level based on the skills acquired in the school;

ii. Universities management through the Centre for Entrepreneurship Development should always organize an exhibition programme on academic sessional basis, inviting stakeholders both from the public and private sectors, to evaluate students entrepreneurial activities;

iii. Universities management through the Centre for Entrepreneurship Development should work in collaboration with the existing entrepreneurs/ business organizations around them in providing entrepreneurship training to students in order for them to develop self-employment initiatives through the course;

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# The Moderating Role of Organizational Culture on the Relationship between Supply Chain Integration and Supply Chain Performance of Bottle Water Manufacturing Firms in Rivers State

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***Abstract:*** *This study focused on moderating effect of the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State of Nigeria. A causal outline research model was formulated to take on board the hypothesis formulated for the study. The population of the study was 79 bottle water manufacturing firms in Rivers State and the Taro Yemen's formula was used to sample 47 firms out of the population. The simple random sampling technique was adopted and five (5) respondents per firm were drawn making 235 respondents. A 5-point likert-scale questionnaire was administered to respondents, of which 227 copies of the questionnaire were returned, obtaining a 96 percent response rate. The study adopted descriptive statistics; multiple regressions and stepwise regression schemes to establish that organizational culture moderates the relationship between supply chain integration and supply chain performance. Therefore, the study concludes that, organizational culture moderates the relationship between supply chain integration and supply chain performance. of bottle water manufacturing firms in Rivers State of Nigeria, and recommends that Managers of bottle water manufacturing firms should improve on their organizational culture, develop strategic collaboration with its suppliers and customers, and encourage cross functional integration within the organization in order to enhance the relationship between supply chain integration and supply chain performance.*

***Keywords:*** *Organizational culture Supply chain performance, Supply chain integration, Table water manufacturing firms.*

## INTRODUCTION

In recent times, it has been recognized that competition has shifted from the midst of firms and domiciled in the midst of supply chains. As a result, to contend globally, it is imperative to consider all connections and estimate performance on supply chain level, for business sustenance by making it well-ordered and treasured (Basu, Jeyasingam, Habib, Letchmana & Ravindran, 2017). Ideally, performance is an indicator of a firm's wellbeing, Over the last decades, supply chain integration has been studied basically and its imperativeness to practitioners and academics has been ascribed with an extraordinary point of acknowledgment. However, notwithstanding major contributions of supply chain integration, firms are under pressure to realize competitive advantage as a result of abysmal supply chain performance. Firms are therefore required to reprioritize and distinguish enthralling supply chain integration programs that can cost-effectively and competitively situate them in the market place to realize significant supply chain performance.

In order to realize good organization and practicality, managers must introduce inclusive supply chain tactics that positively affect performance, such as supply chain integration (Seo, Dinwoodie & Roe, 2015).In contemporary competitive business backdrop, supply chain integration is imperative as a reasonable number of companies focus tenaciously focus on conveying value to the customer, by providing valuable goods and services to them, and in essence engendering competitive advantage. The overriding verdict amongst academics is that supply chain deliberates operational import that facilitates firms' growth to enhanced competitiveness (Yeung *et al.,* 2009). Accordingly, an assortment of scholarly queries reveal that supply chain integration positively influence firm's performance (Flynn *et al.,* 2010; Lee *et al.,* 2007; Narasimhan & Kim, 2002).

Some prior studies have investigated organizational culture, supply chain integration and supply chain performance. For example, HabiburRehman, Adeel, Kashif and Waqas (2016) explored the relationship between supply chain integration and operational performance of organizations operating in Pakistan, Cao, Huo, Li and Zhao (2015) examined the effects of organizational culture on supply chain integration (SCI) by studying the relationships between organizational cultures and supply chain integration, and Braunscheidel, Suresh and Boisnier (2010) investigated the impact of organizational culture on supply chain integration, Despite the fact that the concepts of organizational culture, supply chain integration and supply chain performance have been lengthily explored, little or none have been in print on the study of the moderating role of organizational culture on the relationship between supply chain integration and supply chain performance. Above and beyond, prior studies on supply chain integration and supply chain performance do not provide suitable information for bottle water manufacturing firms in the Nigerian context on how organizational culture moderates the relationship between supply chain integration and a firm's supply chain performance in the new normal economy.

It is based on this groundand with the view of filling the knowledge gap that has been identified that this study investigated the moderating role of organizational culture on the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State of Nigeria.

## LITERATUREREVIEW AND HYPOTHESIS

### The Social Capital Theory

This study scrutinized the Social Capital Theory as the study's theoretical underpinning because of its that is relevance to supply chain integration. The Social Capital Theory (SCT) is a real-world reflection for appreciating the ways in which generous resources assist in growing inter-organizational connections; eventually nurturing competitive advantage (Lin, 2001). This theoretical underpinning is drawn into this study to cross-examine the inconsistence immersion of supply chain integration on supply chain performance in organizations. The capital is famed as an advantage to firms based on right to use to resources made reachable in the sequence of interfaces (Lawson, Tyler & Cousins, 2008). Supply chain integration can be engaged as a resource in cultivating the interactional benefits amongst companies to espouse supply chain performance through the moderating role of organizational culture. This present study is fixed firmly on the Social Capital Theory, and specified by the focal point on the social capital indications of organizational culture. In this study; social capital theory furnishes a decisive, hypothetical underpinning for analyzing the benefits of organizational culture on supply chain integration to offer an atmosphere for superior supply chain performance.

### Organizational Cu1ture

The organizational culture structure was established by Denison and Spreitzer (1991) and based on Quinn and Rohrbaugh (1981), this structure centers on conflicts contained by a system, particularly the conflict between stability and change, and the conflict between the internal organization and the external environment. Copious definitions on organizational culture have been projected by an variety of intellectuals. For example, Schein (2010) defines organizational culture as "the implicit shape over how the world is, and organization as a group of individuals who share opinions, thoughts, feelings and plain behaviors" Zu, Robbins and Fredendall (2010) perceives organizational culture as the ethics or beliefs common to affiliates of an organization. This study sees organizational culture as a model of central norms learned or conventional recognized by a specified group as it gains knowledge of how to mix-up through with its problems of exterior adjustment and internal incorporation that has performed well adequately to be dignified pertinent and as a result to be taught to new members as the sanctioned mode to distinguish, picture and involved in relation to those problems.

Organizational culture therefore, plays a significant role in supply chain management (SCM) (Braunscheidel *et al.,* 2010; Dowty& Wallace, 2010), and proper organizational culture coaxes the behavior of internal workforce in terms of information sharing, teamwork and risk taking (McCarter *et al.,* 2005). Organizational culture in addition influence inter-firm performance in areas such as relationship skills and trust (Schilke& Cook, 2014). Therefore, organizational culture-related skills are imperious for the realizations of supply chain integration (Fawcett *et al.,* 2008; Whitfield &Landeros, 2006; McCarter *et al.,* 2005).

Given the enormousness of organizational culture for supply chain management, previous studies have systematically dissected the linkage between organizational culture and supply chain integration (Braunscheidel *et al.,* 2010; Zu*et al.,* 2010). A handful of these studies have engaged the competing value framework (CVF) proposed by Quinn and Rohrbaugh (1983) to embody organizational culture. The CVF encircles four dimensions, precisely, the development, group, hierarchical and rational culture

dimensions. Inquiries based on the CVF establish the association between this range of dimensions of organizational culture and the different dimensions of supply chain integration (Braunscheidel*et al.,* 2010; Zu*et al.,* 2010).

Previous literature on organizational culture and supply chain performance designate that organizational culture influence performance (Deal & Kennedy, 1997; Denison, 1990; O'Reilly III, 2017). Organizational culture is distinguished as a potential determinant of supply chain integration effectiveness (Yunus & Tadisina, 2010). Based on the works of (Quinn & Cameron, 2011; Yunus & Tadisina (2010) conjecture that organizations with externally focused culture and an elastic coordination have a progressive degree of supply chain integration than those with other organizational qualities. Braunscheidel *et al.* (2010) investigated the effect of organizational culture, measured by the competing value framework (CVF) on two types of supply chain efforts: (i) internal integration and (ii) external integration with major suppliers and key customers, and found confirmation that a company's advocacy culture score is positively associated with external integration, whiles a company's hierarchical culture score is negatively associated with both internal and external integration practices.

Prearranged by the nature of supply chain integration, this framework is considered as apposite for examining the moderating effect of organizational culture on the relationship between supply chain integration ad supply chain performance. This is because, organizational culture strategy emanates from the recognition of predilection of supply chain members to interact successfully This present study adopted organizational culture as the moderating variable on the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State From the above discussion, the study expects organizational culture to moderate the influence of supply chain integration on supply chain performance. Specifically, the study posits that the four traits of organizational culture (involvement, consistency, adaptability and mission) can individually affect the supply chain external integration which will lead to the performance of firms. Hence, when the support of an appropriate organizational culture is absent, firms may not achieve their objectives.

**The Concept of Supply Chain Integration**.

Supply chain emerges as new-fangled field deeply rooted in every single aspect of the organizations. In the past, supply chain was considered as logistic and its functions surrounding flow of goods, but with the track of time researchers and academicians add value such as, marketing, inventory management, finance, promotions, or even new product development. In contemporary times, businesses need to relate to cope with material, money, men, and information contained by and transverse the supply chain to maximize customer satisfaction and to acquire an advantage over competitors. Thus, for better understanding, it is essential to understand all member of supply chain that has either indirect or indirect effects on performance.

As the competitive environment is becoming increasingly challenging, firms are undertaking efforts to compete along multiple fronts. However, many firms find it difficult to compete in the market by relying on their internal resources and competencies alone. They have turned to collaborate with their customers and suppliers to obtain information and complementary resources, which they can deploy to build competitive advantage. This is supply chain integration.

Supply chain integration is defined as the magnitude to which all activities contained by an organization, and the activities of its suppliers, customers, and other supply chain members, are incorporated collectedly (Narasimhan, *et al.,*1998). Supply chain integration has been delineated into internal, suppliers and customer integrations. Supply chain integration has also been pigeonholed into three levels, from functional integration to internal integration and to external integration(Stevens, 1989). The foundation of integration can consequently be categorized by cooperation, collaboration, information sharing, trust, partnerships, shared technology, and an ultimate transference away from managing individual functional processes, to managing integrated chains of processes (Pagell, 2004).Thus, fundamentally there is this conviction that supply chain integration (SCI) is an expedient scheme to advance innumerable measures of firm performance.

Mutual understanding in the focus of affiliating firms plays a leading role in supply chain interactions (Zhang &Huo, 2013; Nyaga *et al.,* 2010), and the stability of the supply chain. Zhang and Huo (2013) observe that it is of paramount importance for firms to form buoyancy in a trading partner's dependability and scrupulousness. The long term affiliations fastened on trust and mutual understanding intensifies the expectancy that the supply chain partner will not implicate in unprincipled behaviours (Zhao, *et al,* 2011). Supply chain players who accomplish mutual understanding will achieve a higher notch of satisfaction with their affiliation and will bestow solemnly resources to assure its continual existence (Prajogo & Olhagor, 2012). According to Nyaga *et al.* (2011), such dedication of resources to weather an affiliation will implicate high obligation from trading partners. High levels of commitment cannot be accomplished excepting there is the presence of high trust and mutual understanding in the standing liaison (Zhang & Huo, 2013).Supply chain integration therefore, is a fusion of the entire activities domiciled in an organization, as well as activities of company's suppliers, customers, and various supply chain affiliates built-in serenely to achieve a desired goal.

**The Concept of Supply Chain Performance**

Performance is "A set of metrics applied to compute the proficiency and efficacy of supply chain processes and relationships, traversing manifold organizational functions and manifold firms and empowering supply chain instrumentation (Maestrini, Luzzini, Maccarrone & Caniato, 2017). The aim of every organization is to enrich performance but for upgrading, they must need to measure it precisely first (Gunasekaran & Kobu, 2007). An all-inclusive review revealed that for the good performance measure, all the members should be considered, performance measure should ponder on both financial and non-financial items, all the levels of supply chain must be reflected and all process of supply chain should be incorporated in the operational measurement of performance (Shahbaz, Rasi, Zulfakar, Bin, Abbas & Mubarak, 2018).

Meanwhile, researchers had used many ways to measure the effects of risk sources and supply chain practices with diverse means like firm or organizational performance (Cook, Heiser&Sengupta, 2011; Shukla, Garg & Agarwal, 2013), product performance, operational performance (Kauppi, Longoni, Caniato & Kuula, 2016; Sukati, Hamid & Baharun, 2013), logistic performance (Effendi, 2015), financial performance (Li, Fan, Lee & Cheng, 2015) or operational performance (Ahmad & Saifudin, 2014; Chen, 2012; Sukati, Hamid, Baharun & Yusoff, 2012; Sundram, Chandran & Bhatti, 2016).

However, indicators to measure performance are comparable, supply chain performance had been measured by operational performance and its indicators were quality performance, flexibility performance, customer service, delivery performance and cost performance (Kauppi *et al.,* 2016). Effendi (2015) has use logistic effect for SCM and its metric comprised order fill rate, order fulfillment lead time, operations flexibility, inventory turnover, and total logistics cost. It is important to reflect that the short term objectives of supply chain management are principally the intensification of productivity and minimization of inventory and cycle time, while long term objectives are to increase market share and profits for all partners in a supply chain (Tyleca *et al.*, 2011). Supply chain performance can thus be ascertained based on how well a company's short-term and long-term objectives are addressed in the market place.

**Empirical Review**

Previous empirical literatures suggest well-heeled perceptiveness into the embedded scheme of supply chain integration (SCI) strategies for improving supply chain performance. Hence, this section borders on the review of previous related literature on supply chain integration and supply chain performance, which definitely led to the formulation of the study's hypotheses.

HabiburRehman *et al*. (2016) explored the relationship between supply chain integration and operational performance of organizations operating in Pakistan. Further study has investigated the moderating impact of organizational culture on this relationship. A theoretical grounded conceptual model is developed to organize a mechanism through which supply chain integration influences on operational performance with the moderating effect of organizational culture, and with the help of this model 2 hypotheses were developed. To analyze the hypothesized relationship, multiple statistical tools were applied with the help of SPSS. These hypotheses were tested with the help of data collected through questionnaires that were filled from a sample of 150 employees of 10 dominant firms prevailed in textile industry of Pakistan. Theory, and the data collected from employees verified the proposed hypotheses and te findings revealed that organizational culture moderate the relationship of supply chain integration and operational performance.

Cao *et al.*(2015) examined the effects of organizational culture on supply chain integration (SCI) by studying the relationships between organizational cultures and supply chain integration. The extant studies investigating the antecedents of SCI focus mainly on environments, inter-firm relationships and other firm-level factors. The study found that organizational culture has a significant effect on supply chain integration.

Braunscheidel *et al.* (2010) investigating the impact of organizational culture on supply chain integration, disputing that supply chain integration comprises the foremost thrust of supply chain inventiveness. The study considered the influence of organizational culture to establish the category of culture distinctiveness that are robustly allied with endeavors to integrate the supply chain and delivery performance.

Based on the review of literature, the following research model was developed:



**Figure 1:** Research Model of the moderating role of Organizational Culture on the relationship between Supply Chain Integration and Supply Chain Performance.

**Source:** Designed by the Researchers, 2022.

**Ho$_1$:** Organizational culture does not significantly moderate the relationship between supply chain integration and supply chain performance.

## RESEARCH METHODOLOGY

The Population of the study is 79 and the study field is the Bottle Water Manufacturing Industry in Rivers State of Nigeria, 47 firms were sampled through the Taro Yamane's formula to obtain the study's sample size. A structured questionnaire was used for data gathering, and the key informants constitute five senior staff of each company. The accurate questionnaire sent out was235, from which 227(96) responses were received).The 227 questionnaires produced the functional response rate. All the variables in the model were evaluated with multiple-item scales, and were anchored on a five-point Likert-type scale format, ranging from 1 = strongly disagree to 5 = strongly agree. Supply chain integration (SCI) is measured by a five-item scale, Supply chain performance (SCP)is measured by a four-item scale, and organizational culture is measured by a five-item scale. The multivariate analysis by means of the Multiple Linear Regression Analysis through the aid of the Statistical Package for Social Science (SPSS version 22.0) was used for data analysis. The Cronbach Alpha technique was used to determine the level of internal consistency among the measurement items. The Cronbach alpha coefficient generated by the use of SPSS will be used to ascertain the reliability of the questionnaire. The value generated was compared with the threshold of 0.7 to confirm reliability.

**Table 1: Shows the Reliability Analysis of the Research Instrument (n=227).**

| Scale | Dimension | Items | Reliability |
|-------|-----------|-------|-------------|
| SCI | Supply Chain Integration | 5 | 0.951 |
| SCP | Supply Chain Performance | 4 | 0.937 |
| OC | Organizational Culture | 5 | 0.952 |

**Source**: **SPSS 22.0 Output, based on 2022 field survey data.**

Table 1 recapitulate the reliability end result of tests, which also incorporates the individual item reliability test). Appreciably, all items are reliable and are employed to study the moderating role of organizational culture on the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State. The level of the alliance between the variables can be operationalized by means of supply chain integration (.951) with 5-items measure; supply chain performance (.937) with a 4-item measure, and organizational culture (.952) with 5-items measure.

**RESULTS**

**Test of Hypothesis 1**

**Ho$_1$**: Organizational culture does not mediate the relationship between supply chain integration and supply chain performance.

**H$_1$**: Organizational culture mediates the relationship between supply chain integration and supply chain performance

**Decision Rule:**

Reject **Ho$_7$** if the *p*-value for the interaction term is less than 0.05. Otherwise, do not reject **Ho$_7$.**

**Table .2: Effect of Organizational Culture on the relationship between Supply Chain Integration and Supply Chain Performance (n=227)**

| 1 | 2 | 3 |
|---|---|---|
| **Variable** | **Beta Coefficient** | ***p*-value** |
| Constant | -591.354 | 0.000 |
| SCI | 0.738 | 0.000 |
| OC | 0.851 | 0.000 |
| SCI*SCP | 0.757 | 0.000 |
| R-square        0.4645 | Adj. R-squared     .46139 | Prob(F-statistic)   0.0000 |

**Source: SPSS Window Output, Version 22.0 (based on 2022 field survey data).**

Table 2 shows the multiple regression results for the mediating effect of organizational culture on the relationship between supply chain integration and supply chain performance based on regression model. The log of supply chain performance is a linear function of supply chain integration, organizational culture and the interaction variable. The interaction variable (SCI*SCP) is the product of supply chain integration and organizational culture. From table 2, the F-statistic is associated with almost zero probability, indicating that overall, the estimated supply chain performance model is highly significant. The Adjusted R-squared is .46139, indicating that the estimated model has a moderate fit; the model explains approximately 46% of the total variation in supply chain performance. Thus, factors not considered in the model jointly account for the remaining 54%.

As Table 2 further shows, the estimated coefficients have mixed signs, with SCI (= 0.738) and OC (= 0.851) associated with positive signs. The interaction term (= 0.757) is associated with positive coefficient. All variables are associated with zero probabilities. This shows that the main effect supply chain integration is significant at 1% level. The effects of organizational culture and the interaction variable are also significant at 1% level, suggesting that organizational culture mediates the relationships between supply chain integration and supply chain performance.

**DISCUSSIONOF FINDINGS**

The study's finding shows that a moderate and significant effect of organizational culture on supply chain integration, whereas a very strong and significant effect of organizational culture on supply chain performance. When organizational culture is held constant, the influence of supply chain integration on supply chain performance becomes (r=0.465 pv 0.000< 0.05) hence the difference between the zero order correlation and the controlled correlation is significant we came to the conclusion that organizational culture do significantly mediates the relationship between supply chain integration and supply chain performance. A possible explanation to this is that virtually all the respondents used in this survey

understand their firms' organizational culture. This may have influenced the result. Also, in respective of organizational culture, supply chain integration needs high level of organizational culture to appreciate. This supports HabiburRehman *et al.* (2016) findings that reveal that organizational culture moderate the relationship of supply chain integration and operational performance.

## CONCLUSION AND RECOMMENDATION

This work focused on investigating the mediating effect of organizational culture on the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State of Nigeria. It is clear from the outcome of the study that there is a contained mediating effect of organizational culture on the relationship between supply chain integration and supply chain performance, as the results of the statistical analysis deposits a significant outcome, depicting a moderate and significant effect of organizational culture on supply chain integration, whereas a very strong and significant effect of organizational culture on supply chain performance. The study therefore, concludes that organizational culture significantly mediates the relationship between supply chain integration and supply chain performance of bottle water manufacturing firms in Rivers State of Nigeria, and recommends that management of bottle water manufacturing firms should improve on their organizational culture, develop strategic collaboration with its suppliers and customers, and encourage cross functional integration within the organization in order to enhance the relationship between supply chain integration, and supply chain performance.

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# E-Tracking and Service Performance of the Pharmaceutical Industry in Port Harcourt

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**Abstract:** *This study investigated e-tracking and service performance of the pharmaceutical industry in Port Harcourt. In order to conduct this study, the causal research design method was adopted, and the population of the study consisted of thirty one (31) registered pharmaceutical companies in Port Harcourt. Using census sampling technique, the whole 31 pharmaceutical companies were studied. Two (2) copies of questionnaire were administered to each of the 31 pharmaceutical firms managing Directors and customer service personnel which amounted to a total of sixty two (62) copies of questionnaire. Out of the 62 copies of questionnaire administered, fifty (50) copies retrieved were valid and used for the analysis. The study utilized Kendall tau-b analysis in testing the influence of the Predictor variable on the Criterion variable. The study found out that GPS tracking system has a strong positive influence on both reliability and customer assurance. Also, that radio frequency identification significantly influences reliability and customer assurance. Based on the findings, the study concludes that e-tracking such as GPS tracking and radio frequency identification significantly influences the service performance of pharmaceutical industry in Port Harcourt. Based on the conclusion, the study recommends that in order to check counterfeiting, fake drugs distribution and consumption e-tracking devices (systems) should be used in the pharmaceutical industries in Port Harcourt and Nigeria, secondly government through its agencies should enact tracking and tracing regulations not only in the pharmaceutical industries but also in other areas of government activities like FMCG (Fast Moving Consumer Goods), and lastly, e-tracking system should be developed through researches in the academics to widen the horizon of knowledge in this area of study.*

**Keywords:** *E-tracking, Service Performance, Pharmaceutical Companies, GPS Tracking System, Radio Frequency Identification*

## Introduction

Technology is ruling the world of e-commerce and internet is at the heart of marketing practices and strategies. The impact of technology is ubiquitous in all marketing activities and has changed overtime in terms of spheres of marketing practices. Businesses have increased in speed, accuracy and specificity to the delight of customers. E-service as a new paradigm in e-commerce has challenged the traditional ways of marketing services to the extent that customers are not only interested in delivery time, but safety of such products. Much of the works presently being undertaken by human are now automated with the advent of information technology and its adoption (Kanyanuth et al, 2018).

To ensure the safety of goods in transit, it is important that products are tracked to determine their location in the supply chain. Tracking not only provide information on location but also reduces cost and time of delivery of products which have contributed to the competitive advantage of firms in the logistic and pharmaceutical industries. Information technology is the bedrock of e-commerce, although relatively new in Nigeria, its adoption is fast expanding, (Salami & Ogeta, 2014).

In Nigeria, the pharmaceutical industry occupies a wide space in the generation of revenue to government because of its wide market in the sub region, but such opportunity is hindered by the prevalence of counterfeiting, fake drug production, distribution and consumption. Such unacceptable practices put the health of customers in jeopardy. This led to the establishment of NAFDAC (National Agency for Food and Drug Administration and Control) by Decree No. 15 in 1993. NAFDAC's mandate is to oversee and regulate the production, distributing, selling, and the utilization of medical devices, drugs, food, cosmetics, chemical items, and packaged water in Nigeria.

To ensure that the health and safety of customers are protected the use of tracking and tracing devices have been employed to help the industry meet it competitive and price challenges in the 21$^{st}$ century.

**Statement of the Problem**

Nigeria imports about 70% of pharmaceuticals from Asia countries like China, India, Brazil, Mexico, Pakistan and Russia to mention a few, (Parmatimes, 2016). The rest 30% drugs are produced locally. There is huge export potential for Nigeria pharmaceutical market among ECOWAS (Economic Community of West African States) countries. According to Ugbam & Okoro (2017), the pharmaceutical industry has huge potentials the world over and the pharmaceutical market is expected to more than double to US $1.3trillion by 2020. The authors contend that in the pharmaceutical industry a gap exist between the level of import and local manufacturing to meet domestic needs.

The pharmaceutical industry in Nigeria fraught with challenges including counterfeiting, "fake drugs", consumption and illegal trafficking. This problem is of great concern to practitioners, manufacturers, distributors and other stakeholders. The Nigerian government response to this state of affair was to establish the National Agency for Food and Drug Administration in 1993 to curb the influx of counterfeit and fake drugs in the country. Nigeria is a major route in the import and export of pharmaceuticals in West Africa, (Ugbam & Okoro, 2017). Tracking and Tracing systems in line with global practices have to be put in place to check the menace of counterfeiting and "fake drugs" production, distribution and consumption. As a developing nation, with the dearth of infrastructural facilities especially in the information technology arena, a lot still need to be done to ensure that Tracking and tracing policy with its accompanying

serialization are adhered to in order to save the health of the growing population. Despite the popular view on e-tracking and service performance, there exist scarce empirical studies on the association between e-tracking and service performance within the domain of pharmaceutical industry in Port Harcourt, thus, the aim of this study.

**Conceptual Framework of the Study**
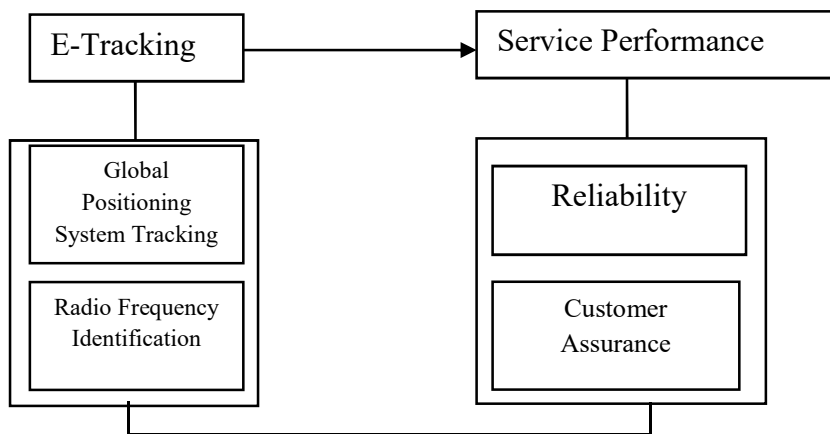


**Source:** Parasuraman, et al. (1996).

**Aims and Objectives of the Study**

The aim of this study is to empirically investigate the influence of e-tracking on service performance in the pharmaceutical industry in Port Harcourt.

The study has other specific objectives as follows to:

i)      determine the influence of e-tracking on the reliability of pharmaceutical services in Port Harcourt, Rivers State
ii)     examine the extent of influence of e-tracking on customer assurance of pharmaceutical services in Port Harcourt.

**Research Questions**

Due to the objectives of the study, these research questions were formulated:

1.     How does e-tracking influence the reliability of pharmaceutical services in Port Harcourt, Rivers State.
2.     To what extent does e-tracking influence customer assurance of pharmaceutical services in Port Harcourt, Rivers State.

**Research Hypotheses**

Utilizing the research questions and the conceptual framework as backbone to the study, the following research hypotheses were formulated.

**Ho$_1$:** Global Positioning System tracking has no significant influence on the reliability of pharmaceutical services in Port Harcourt.

**Ho$_2$:** Global Positioning System tracking does not influence significantly the customer assurance of pharmaceutical services in Port Harcourt.

**Ho$_3$:** Radio Frequency Identification has no significant influence on the reliability of pharmaceutical services in Port Harcourt.

**Ho$_4$:** Radio Frequency Identification has no significant influence on the customers assurance of pharmaceutical services in Port Harcourt.

**Scope of the Study**

The geographical scope of this study is on all the pharmaceutical firms in Port Harcourt. The topical and content scope of the study is on e-tracking and service performance of Pharmaceutical firms in Port Harcourt. The unit of analysis is at the macro level meaning that the views of managers and employees were surveyed.

**Review of Related literature**

**Conceptual Review**

**The Concept of e-tracking**

E-tracking is not a brand-new idea to mankind. "A multi-tiered system built to remotely monitor products while in transit, and control as the commodities travel along the supply chain from source to destination," according to Kabiru (2016), is what Electronic Cargo Tracking System (ECTS) is. In a distribution network or supply chain, tracking is the process of acquiring and providing data on the whereabouts of delivery goods (Deschner et al, 2008). A tracking system is used to keep tabs on people or moving items and to provide a timely, ordered series of position data for processing. As far back as the 15$^{th}$ century, "foot print, mark left by anything", including horses were tracked by the French and Germans. Africans were also involved in tracking while hunting with dogs and keeping track (foot prints) of domesticated animals, (Liebenbery, 1990).

The pharmaceutical industry has designed tracking and tracing regulations to ensure that goods produced, distributed, consumed are free from counterfeiting, falsification, fake, illegal

trafficking, pilferage and grey market activities, ( Raffael et al, 2014). According to Raffaele et al. (2014), tracking entails constantly comprehending the precise location of a specific good around the supply chain, whereas tracing entails a rapidly shifting regulatory landscape that promotes an increasingly stringent control of goods handling, particularly for food and drugs. Production and distribution processes in the pharmaceutical industry are aligned with traceability regulation/requirement. This is because the industry products are expensive and have profit potentiality. Forgers in the form of wholesalers and retailers cash in to make "abnormal profit" at the detriment of the patient health and safety.

Tracking gives real time information about fleet, data of objects on the move, personnel or merchandise (Johnson, 2021). In addition, it saves money, offers visibility; improve safety measures, helps in efficiency and productivity. Other benefits of tracking include management and control of inventory, distribution and sales monitoring, counterfeiting and theft, Raffaele et al. (2014). Almost everything can be tracked in this present era with the advancement of technology and e-commerce and e-service. From cargo tracking, instant generation of data, online service agreement, order status signal detection, asset, portfolio, to vehicles etc tracking technology has become pervasive (Juma, 2014; Samchez, 2016; Rana & Pratima, 2014; Florence & Queree, 2005; Scolari, 2019; Shamuzzonal et al., 2013). Monitoring of cargo movement is done using the technology of Radio Frequency Identification (RFID) and the Global Positioning System (GPS/GPRS), (Kabiru, 2016).

**Dimensions of e-Tracking**

Global Positioning System (GPS), the Radio Frequency Identification (RFID, Real-Time Locating Systems (RTLC), Barcodes, Quick Response (Q.R) and recently, Global Navigation Satellite system (GNSS) etc are some of the dimensions of tracking. Anand (2019) listed Radio Frequency Identification (RFID), Geofencing, Internet-Tracking, Global Positioning System & Satellite Tracking, Radio-Tracking, and Cell-phone Triangulation as dimensions of E-Tracking. In this study, we selected global positioning system tracking and radio frequency identification as our dimensions for E-Tracking.

**Global Positioning System (GPS)**: The GPS has acquired a growing importance in the field of wireless communication. The American (American) Department of Defense launched GPS in 1978. Delivery of packages, mobile commerce, reaction to emergencies, exploration, resource management, surveying, etc. are all tracked using GPS. A network of 24 satellites in six separate 12-hour orbital patterns makes up the GPS. Tracking techniques are based on the distance, direction, or both of a moving object. This tracking technology has been used for business purposes as well as transportation all around the world. It enables staff navigation and location awareness (Abha et al., 2015). Using a built-in cellular (GSM), radio, or satellite modem, the tracking device can keep the recorded position information or transfer it to a central location database or a computer that is internet enabled.

The GPS has been useful in package delivery, resource management, tracking pharmaceutical products. In the logistic industry, GPS tracking is now an accepted practice and as well as a market qualifier, (Ciuba, 2004; Day, 1991; Williams &Tao, 2008). A product's precise location may be known at any moment when it is being transported from one end to another in the supply chain, thanks to GPS technology. This has improved consumer engagement and customer retention.

Similar to GPS, Radio Frequency Identification (RFID) is used to pinpoint the position of people, stock, and items that are in motion. Access to more exact stock information is made available through RFID. In order to automatically detect and monitor connected items, it uses radio frequency electro-magnetic fields in a wireless, non-contact manner to send data. One significant benefit of RFID, according to Bradawl (2000), is the quick, automated information transfer between tags and scanners that doesn't require line of sight or touch**.** The use of Global Positioning System and Radio Frequency Identification has contributed to fast and reliable delivery of goods and enhance customer experience (Kunyanuth et al, 2018).

**Concept of Pharmaceutical Services**

Pharmaceutical Services **could be seen as service provided** by a pharmacist which include the dispensing of medications in a pharmacy by the order of a licensed practitioner prescribing within his or her practice scope (Law Insider, nd.). Pharmaceutical services is not limited to the manufacturing of drugs, it among other things ensures safe supply of medicines, poisons and therapeutic goods; distribute medicine and regulate activities in the industry especially to curbs counterfeiting along the supply chain.

**Concept of Service Performance**

A task's performance is evaluated against the current accepted standards for correctness, completeness, cost, and speed (Unam et al., 2015). The metrics used to measure a firm's performance relate to how a particular request is handled or the effective performance of an action (Ngugi & Karina, 2013). It also involves the evaluation of predetermined metrics or benchmarks for accountability in terms of effectiveness, efficacy, and the environment, such as financial performance (profitability), market share, and industrial expansion. Customer feedback, open and closed issues, rate of complaint escalation, response time, conversion rate, and progress in customer satisfaction are all subjective indicators of customer service performance (Kamakia, 2014). According to Salamon and Robinson's (2008) study, customer service was rated more highly when employees felt that management trusted them.

The accomplishment of initial aims is successfully measured via performance measurement. In the service sector, measuring customer happiness and service quality has become common practise (Maimunah et al., 2002). Financial performance used to be thought of as a way to evaluate corporate performance, but that is no longer the case (Drucker, 1993). Fitzgerald et al.

(1991) instead presented alternative performance indices in six dimensions: competitive performance, financial performance, service quality, adaptability, resource use, and innovation. Four broad categories were created as a result of further categorization of the general performance measurement: quality of service, flexibility, resource use, and innovation. Some scholars like Schmelzer (2008) would like service performance to be seen from functional, operational, process and business performance dimensions.

In assessing an organization service performance, it is crucial to look at the quality of services provided, the level of customer satisfaction and loyalty. A satisfied customer would not only through word-of-month inform other friends, peers and family members but also come back to purchase the service. In some other cases, service performance could be measured by average order fulfillment times and time taken for order to be delivered. Bradly (2001) and Gronross (1988) suggested using service quality/Servqual of Parasuraman et al (1994) to measure service performance. This involves five qualities namely tangibility, reliability, responsiveness, assurance and empathy known with an acronym RATER. Also, Aghdaie and Faghani (2012 cited in Nwachukwu et al., 2022) utilized the five SERVEQUAl to measure performance include: reliability, assurance, tangibles, responsiveness, and empathy. In this study we selected reliability and assurance as our measures for service performance.

**Reliability:** Parasuraman et al. (1991) assert that the most vital determinant of service quality is the reliability, which according to them could be seen as the degree of consistency of a measure. A test is considered reliable if it gives the same repeated output under the same conditions. Within the context of a business, reliability is capacity to deliver the promised service accurately and dependably. It simply means that the business or firm delivers on its promises. Every consumer will want to work with companies that honour their commitments, particularly in regards to the result of the service and essential service characteristics.

Assurance: Encouragement of confidence It is understood to be the practise of civility among employees and the capacity of the business and its personnel to foster trust and confidence (UKessay, nd.). The employee who serves as a conduit between the client and the business might represent confidence and trust. The maintenance of a desired level of quality in a service is known as quality assurance, and it involves paying attention to each step of the delivery or manufacturing process.

**Theoretical Framework**

To effectively check unwholesome practices in the pharmaceutical industry, tracking of objects in motion along the supply chain is inevitable. Tracking require sight and touch which is based on new theory of vision and Resource Based View. This study is anchored on Resource Based View theory since the organization needs to look from within and use its resources to track its product so as to stay competitive..

**Theory of Resource Based View (RBV)**

Jay Barney is credited to be the father of modern RBV and Resource Based Theory (RBT) of the firm, although the term was coined by And Borger Wermerfelt in 1984. According to this hypothesis, businesses have resources, some of which help them gain a competitive edge and some of which result in better long-term success. Rare and precious resources can help an organisation gain a competitive edge. Insofar as the business can guard itself against the imitation of resources, replacement or transfer, the advantage can be maintained for extended time period.

The RBV hypothesis states that a corporation uses its competitive edge to achieve sustainability. The efficient use of a firm's scarce, valued, and appropriateable resources results in a temporary competitive advantage that is maintained over time by the resources' substitutability, imitability, and mobility. According to the resource-based view idea, businesses should search within themselves to identify the sources of their competitive advantage.

**Empirical Review**

The study "Quality KPIs in Pharmaceutical and Food Industry" by Marianna et al. (2013) looked into the kinds of key performance indicators (KPI) that businesses employ and how they make use of the KPI findings. Those working in Finland's pharmaceutical and food industries who are accountable for quality were the target of an email poll. It was discovered that while there were significant changes in their application and reporting, quality KPIs were similar for both the pharmaceutical and food businesses. The amount of complaints, product flaws, and variations were the next most popular KPIs in the pharmaceutical sector. The most popular quality KPI for the food business was the total number of complaints. The study's findings indicated that the food business was using quality indicators somewhat more effectively than the pharmaceutical industry.

Quality in the Pharmaceutical Industry: A Literature Review was the focus of Haleem et al. The research was done in Saudi Arabia. It outlined the most significant quality standards and best practises in the pharmaceutical sector and structured them into a manual to help other academics who wanted to delve further into the standards and best practises. A study of 102 papers was conducted, of which 46 focused on general quality procedure and 56 on pharmaceutical quality. The findings indicated that there are several papers explaining broad principles and practises, but that there is a dearth of literature showing their implementation, case studies of pharmaceutical factories using them, and the relevance of such guidelines and practises.

A research on reverse logistic process control methods for the pharmaceutical sector supply chain in India was conducted by Sameer et al. in 2009. The paper's objective was to analyse the pharmaceutical supply chain utilising the DMAIC approach in order to enhance the reverse logistics during a recall and reduce the risk of consumer damage. A cause-and-effect study of the supply chain and the potential trouble spots was carried out. The usage of Radio Frequency

Identification (RFID), reliable information systems, and transportation carriers were then improved upon in order to simplify the supply chain and lower the chance of fake medications entering the forward supply chain. The reverse logistic supply chain's failure types and corresponding failure severity were studied using FMEA. The investigation produced some intriguing and novel ideas that are now being tried and created, however there was little particular data on the pharmaceutical supply chain. Since third-party suppliers manage the majority of the reverse logistics for medicines, this unique expertise is well-guarded because it is a key skill. The study provides guidance for changes linked to the quality of service currently provided between logistic users, logistics service providers, pharmaceutical firms, and customers and aids in analysing gaps, suggesting strategies to close them.

An assessment of trace and track rules in the pharmaceutical business and their effects on the reverse logistics of pharmaceuticals - situation in Regulated nations and India - was published by Moniveena & Kumar in 2017. The research examined the efforts of industrialised nations to control the pharmaceutical industry's track and trace procedures and reverse logistics in the regulated nations and India. While Europe is moving toward 2D barcodes, developed nations like the USA have used RFID. The demand for effective monitoring, visibility, and control measurements—essential elements of any reverse logistics process—has grown as a result of substantial government laws and reporting requirements as well as a greater emphasis on lineage.

Impact of Track and Trace integration on Turkish pharmaceutical production systems was reported by Raffaele et al. in 2014. This study provided a succinct review of the traceability international rules in the pharmaceutical industry, the effects of their application on the production and logistics processes, the technologies created, and their advantages. The study's objective was to evaluate the current and future advantages of deploying traceability systems throughout the pharmaceutical supply chain. The writers covered the use of contemporary approaches and technology in traceability systems. Distributed e-pedigree model and federal registry model were both employed. The study reviewed the primary legal and technological aspects of track and trace while emphasising its influence on manufacturing procedures and intrinsic benefits.

In Turkey, Kunyanuth et al. (2018) investigated the impact of utilising an e-tracking system for small businesses. The goal of the research was to supply and manage publisher operations and materials. The project was developed using RAD (Rapid Application Development). Black Box Testing and a questionnaire were used to assess the effectiveness and acceptability of the suggested application. The project created an online application for e-tracking. The approach works better for tracking publications to tackle the issue of working inside a day.

Ahm et al. (2013) released research on the tracking and tracing performance evaluation for logistics operations in Finland. Before introducing such technologies as auto-ID which includes barcodes, Quick Response (QR) codes, RFID tags, etc., their goal was to assess performance and feasibility gaps. The authors recommended that each stage in the chain of supply, including

distribution, the packing, transportation,, etc., have their own information related with the system of tracing at the conclusion of the study.

In Nairobi, Kenya, Juma (2014) conducted research for her Master of Business Administration (MBA) thesis on the use of cargo monitoring systems as a competitive strategy for service delivery. The goal of the system was to look into how DHL Express leverages the Congo tracking system as a service delivery method to compete. With a qualitative study approach, both the secondary and primary data were utilised. The results of the study demonstrated the value of tracking systems in determining the location of shipments and informing customers well in advance.

In Mumbai, India, Manohar et al. (2006) researched on the use of RFID in the pharmaceutical business. The conference paper's primary goal was to list all of the uses for RFID in the pharmaceutical sector. The use of RFID in the pharmaceutical industry has been proven to aid with expiration date management, pharmaceutical tamper detection, and fraud identification and prevention.

**Gap in Literature**

Extant publications published in the literature on e-tracking and service performance were reviewed to identify gaps in the literature.

Ahm Shamsuzzoha et al. (2013) published on tracking and tracing performance evaluation for Finnish logistics operations. In order to track the movement of materials along the logistics chain, the research indicated the usage of technologies of auto-ID like quick response codes, barcodes, radio frequency identification tags, etc. The study found a discrepancy between performance and feasibility assessments prior to the use of such technology. To evaluate the effectiveness of tracking and tracing tools, an experimentational setup was developed and carried out. The study's findings were turned into a helpful road map for manufacturing firms before they use the right monitoring and tracing tools and technology in their day-to-day operations in the future.

Kabiru (2016) released a piece on the Kenya Revenue Authority's electronic tracking system, operational effectiveness, and transporters. The research design used in the study was exploratory. A study questionnaire was used and given to the various officials at various stations around the nation. The system has been deployed and it has a good influence on operational performance at the Kenya Revenue Authority (KRA) as well as at transport businesses that have integrated the system, according to data analysis using descriptive statistics. For the system to function properly, the study suggested that both the KRA and the transporters maintain constant communication.

Juma (2014) researched the use of a cargo tracking system as a competitive tactic in Kenyan service delivery. Secondary and primary data were employed in the investigation. The first

information was gathered using an interviewing guide. The data was qualitative in nature, and it was analysed using content analysis. The research revealed that tracking systems assist in determining the whereabouts of shipments and alerting customers well in advance.

In the above published works so far examined, none has been done empirically on e-tracking and service performance of pharmaceutical firms in Port Harcourt. This work with its emphasis on pharmaceutical firms intends to close the existing literature gap.

## Methodology

### Research Design

This study adopted a causal investigation to establish the influence of e-tracking on service performance of pharmaceutical firms in Port Harcourt, Rivers State. The variables utilized in the study were not in any ways interfered with by the researcher. This study involved the collection of standardized information from the population census.

Quantitative method was used for the research work. Kendall tau-b analysis was adopted to test the influence of the Predictor variable on the Criterion variable.

### Population of the Study

There are thirty (31) registered pharmaceutical companies in Port Harcourt and over 105 registered pharmaceutical companies in Nigeria listed in the Nigeria stock exchange and registered members of the pharmaceutical society of Nigeria. The study population is on the thirty one pharmaceutical companies, and using census sampling technique, we study all the 32 registered pharmaceutical companies in Port Harcourt. The study unit of analysis is at the organizational level, hence the managing director of these companies and their operations (functional) managers were surveyed. Two (2) copies of questionnaire were administered to each of the 31 pharmaceutical firms managing Directors and customer service personnel which amounted to a total of sixty two (62) copies of questionnaire. Out of the 62 copies of questionnaire administered, fifty (50) copies retrieved were valid and used for the analysis.

The study used construct, content, and face validity metrics. Senior academics from the IAUE department of marketing granted face, content, and construct validity to our measurement tools. The instrument underwent two steps to increase its dependability. The first step was completed before to data collection, whereas the second was completed following data collection.

The threshold was set at a Crobach alpha coeficient of 0.7 to assess the instrument's dependability. Following a reliability test conducted through the use of SPSS which stands for Statistical Package for Social Science, all items scoring lower than 0.7 were eliminated. Every item tested was determined to be trustworthy and to have scored higher than 0.7.

## Descriptive Analyses and Interpretation

This study adopted the existing threshold of mean of 3.00 as the acceptance level at which mean value accepted to be significant, meaning that any mean value below 3.00 is considered not significant.

## RESULTS AND DISCUSSION

### 4.0 Data Presentation

This chapter begins with the presentation of the results of data analysis. As part of data collection efforts, the researcher designed and distributed a questionnaire comprising of 28 items, which were given to sixty two respondents in the area of research. Fifty (50) copies of questionnaire retrieved were discovered suitable for analysis resulting in 81% response rate. While 12 copies or 19% were dropped based on errors. The first part of the chapter presented descriptive statistics (Table 4.1) followed by presentation of each of the research questions.

**Demographic Characteristics of Respondents**
**Table 4.1 Distribution of the respondents by their sex**

| Sex | N | Percentage |
|---|---|---|
| Male | 35 | 70% |
| Female | 15 | 30% |

Out of the 50 valid responses, 35 (70%) were for male, while 15 (30%) were for female.

**Table 4.2 Distribution of firm by branches**

| Branches | N | Percentage |
|---|---|---|
| 1-3 | 18 | 36% |
| 4-6 | 22 | 42% |
| 7-Above | 10 | 22% |

Out of the 50 valid responses, 18 (36%) had 1-3 branches, while 17(48.57%) had 4-6 branches and 10(22%) had 7 branches and above.

**Table 4.3 Distribution of the firms by years of existence of pharmaceutical firm**

| Years of existence | N | Percentage |
|---|---|---|
| Below 5 yrs | 22 | 44% |
| 6-10 yrs | 23 | 46% |
| 11 yrs- Above | 5 | 10% |

Out of the 50 valid responses, 22 (44%) has been in existence below 5 years, 23(46%) were between 6 -10 years, 5(10 %) fell between 11 years and above of existence.

**Table 4.4 Distribution of the respondents by their Educational qualification**

| Educational Qualification | N | Percentage |
|---|---|---|
| WAEC | 18 | 36% |
| BSC/Equivalent | 24 | 48% |
| Post Graduate | 8 | 16% |

Table 4.4 Indicates that out of the 50 valid responses, 18 (36%) are WAEC certificate holders, 24(48%) are BSC holder, while 8(16%) are Post Graduates.

**Table 4.5 Distribution of the respondents by Age bracket**

| Age Bracket | N | Percentage |
|---|---|---|
| Under 20 | 18 | 36% |
| 20-29 | 10 | 20% |
| 30-39 | 10 | 20% |
| 40-49 | 7 | 14% |
| 50-Above | 5 | 10% |

Table 4.5 shows that out of the 50 valid responses, 18 (36%) were under 20 years, 10(20%) were between 20-29 years, 10 (20%) were between 30-39, 7(14%) were between 40-49, and 5(10%) were 50 and above.

**Univariate Analysis**

**Analysis of Research Questions**

**Research Question 1**

**Table 4.6 Mean and standard deviation of respondents on tracking system**

| S/N | Tracking System | SA | A | N | D | SD | STD | X | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 | The essence of tracking is to obtain information on goods in transit | 23 | 12 | 2 | 8 | 5 | 1.07 | 3.70 | Accepted |
| 2 | Radio frequency identification (RFID) and the global positioning system (GPS) are often used tools in item tracking. | 28 | 12 | 1 | 6 | 3 | 1.09 | 3.40 | Accepted |
| 3 | Tracking systems are limited to logistics firms alone. | 26 | 17 | 2 | 3 | 2 | 0.74 | 3.17 | Accepted |

| S/N | | SA | A | D | N | SD | STD | X | REMARK |
|---|---|---|---|---|---|---|---|---|---|
| 4 | One goal of tracking is to identify the precise position of commodities within the supply chain. | 25 | 10 | 1 | 8 | 5 | 0.92 | 3.40 | Accepted |
| 5 | Tracking system saves cost, offer visibility and improves safety measure in the supply chain management. | 13 | 12 | 2 | 6 | 2 | 0.78 | 3.11 | Accepted |

Table 4.6, sampled the public's opinion on tracking systems. Item 1 stated that The essence of tracking is to obtain information on goods in transit, it had a mean value of 3.70. Item 2 with a mean value of 3.4 stated that GPS which stands for Global positioning system and RFID which stands for Radio frequency identification are common devices used in object tracking. This finding had amazing results with all the items accepted due to the fact that they are higher than the criterion mean of 3.0

**Research Question 2**

**Table 4.7 Mean and standard deviation of respondents on Global Positioning System (GBS) and RFID (Radio Frequency Identification)**

| S/N | Global Positioning System (GBS) and Radio Frequency Identification (RFID) | SA | A | D | N | SD | STD | X | REMARK |
|---|---|---|---|---|---|---|---|---|---|
| 6 | GPS, RFID, RTLS (Real Time Locating System), Bar Codes, Quick Response (QR) and Global Navigation Satellite System (GNSS) are all forms of tracking. | 23 | 12 | 10 | 2 | 3 | 0.74 | 3.1 | Accepted |
| 7 | GPS has been useful in package delivery, resource management, and | 21 | 10 | 13 | 12 | 5 | 1.04 | 3.08 | Accepted |
| 8 | tracking of pharmaceutical products. The use of GPS and RFID has contributed to fast and reliable delivery of goods and enhance customer experience. | 24 | 12 | 15 | | 2 | 1.15 | 3.04 | Accepted |
| 9 | Tracking and Tracing systems have been integrated into pharmaceutical services in Europe, United States and India. | 25 | 12 | 10 | 3 | 4 | 0.94 | 3.40 | Accepted |
| 10 | Counterfeiting, fake drug distribution and illegal trafficking in drugs could be checked by tracking. | 22 | 10 | 12 | 2 | 4 | 1.02 | 3.03 | Accepted |

Table 4.7 sampled the public's opinion on Global Positioning System (GBS) and Radio Frequency Identification. Item 6 stated that GPS, RFID, RTLS (Real Time Locating System), Bar Codes, Quick Response (QR) and Global Navigation Satellite System (GNSS) are all forms of tracking, It had a mean value of 3.1.Item 10 stated that Counterfeiting, fake drug distribution and illegal trafficking in drugs could be checked by tracking. These findings had amazing results with all the items accepted due to the fact that they are higher than the criterion mean of 3.0

**Research Question 3: Service Performance**

**Table 4.8: Mean and standard deviation of respondents on Service Performance**

| S/N | Service Performance | SA | A | N | D | SD | STD | X | Remark |
|-----|---------------------|----|----|----|----|----|-----|------|--------|
| 11 | Service performance is measured against known standards of accuracy, speed of delivery of service and reduces cost. | 25 | 12 | 2 | 8 | 3 | 1.07 | 3.70 | Accepted |
| 12 | Procurement, dispensing, distribution and storage of drugs are pharmaceutical services. | 23 | 10 | 1 | 10 | 6 | 1.09 | 3.40 | Accepted |
| 13 | Response rate, rate of escalation of complaints and improvement in customer satisfaction are some of the indices in service performance. | 28 | 9 | 2 | 10 | 1 | 0.74 | 3.17 | Accepted |
| 14 | Service quality is measured against the background of tangibility, reliability, assurance, responsiveness and empathy. | 22 | 12 | 1 | 8 | 7 | 0.92 | 3.40 | Accepted |
| 15 | Innovation, resource utilization, service quality and flexibility of service are the measures of service performance. | 25 | 10 | 2 | 10 | 3 | 0.78 | 3.07 | Accepted |

Table 4.8 sampled the public's opinion on Service Performance. Item 11 stated that Service performance is measured against known standards of accuracy, speed of delivery of service and reduces cost., It had a mean value of 3.70.Item 14 stated that Service quality is measured against the background of tangibility, reliability, assurance, responsiveness and empathy. This finding had amazing results with all the items accepted due to the fact that they are higher than the criterion mean of 3.0

**Research Question 4: Reliability and Assurance as Measures of Service Performance**

**Table 4.9: Mean and standard deviation of respondents on Reliability and Assurance as Measures of Service Performance**

| S/N | Reliability and Assurance as Measures of Service Performance | SA | A | N | D | SD | STD | X | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 16 | Reliability brings about word-of-month influence and repeat purchase of customer for a product. | 15 | 15 | 1 | 10 | 9 | 1.07 | 3.70 | Accepted |
| 17 | Company gain competitive advantage and customer loyalty through trust and confidence as measure of assurance in service performance. | 20 | 15 | 2 | 10 | 3 | 1.09 | 3.40 | Accepted |
| 18 | Customer perceived assurance as quality of service is an important indicator for service delivery. | 18 | 9 | 1 | 5 | 1 | 0.74 | 3.17 | Accepted |
| 19 | Skilled employees are capable and polite in their relationship with clients. | 25 | 12 | 1 | 8 | 4 | 0.92 | 3.40 | Accepted |
| 20 | Reliable service is seen to be accurate and dependable. | 22 | 12 | 1 | 10 | 5 | 0.78 | 3.22 | Accepted |

Table 4.9 sampled the public's opinion on Reliability and Assurance as Measures of Service Performance. Item 16 with a mean value of 3.15 stated that Reliability brings about word-of-month influence and repeat purchase of customer for a product. Item 19 stated that Skill employees are capable and polite in their relationship with clients. This findings had amazing results with all the items accepted due to the fact that they are higher than the criterion mean of 3.0.

**Bivariate Analysis**

**Test of Research Hypotheses**

From the research questions and conceptual framework, the following important research hypotheses were formulated.

**Ho$_1$:** Global Positioning System tracking has no significant influence on the reliability of pharmaceutical services in Port Harcourt.

**Ho$_2$:** Global Positioning System has no influence on customer assurance of pharmaceutical services in Port Harcourt.

**Ho₃:** RFID **(**Radio Frequency Identification) has no influence on the reliability of pharmaceutical services in Port Harcourt.

**Ho₄:** RFID has no influence on customer assurance of pharmaceutical services in Port Harcourt.

### 4.2.1 Testing of Hypotheses

The study's initial chapter's hypotheses were statistically evaluated in this section using Kendall tau-b. The null hypothesis, which was stated at 0.05 level of significance, was either accepted or rejected based on the outcome of the statistical testing**.**

**Ho₁:** Global Positioning System tracking has no significant influence on the reliability of pharmaceutical services in Port Harcourt

**Table 4.10 Kendall's tau_b Tests Output**

**Correlations**

|  |  |  | GPS | Reliability |
|---|---|---|---|---|
| Kendall's tau_b | GPS | Correlation Coefficient | 1.000 | .786** |
|  |  | Sig. (2-tailed) | . | .000 |
|  |  | N | 50 | 50 |
|  | Reliability | Correlation Coefficient | .786** | 1.000 |
|  |  | Sig. (2-tailed) | .000 | . |
|  |  | N | 50 | 50 |

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

**Source**: SPSS,2.1

According to the data in the table above, there is a high and positive connection between GPS and reliability (r = 0.786). According to the coefficient of determination (r2 = 0.62), GPS may account for 62% of the change in reliability returns. A substantial link is shown by the significant value of 0.000 (p 0.05). The null hypothesis was disproved as a result. As a result, there is a strong connection between GPS and reliability**.**

**Ho₂:** Global Positioning System has no influence on customer assurance of pharmaceutical services in Port Harcourt

## Table 4.11 Kendall's tau_b Tests Output

**Correlations**

| | | | GPS | customer assurance |
|---|---|---|---|---|
| Kendall's tau_b | GPS | Correlation Coefficient | 1.000 | .822[**] |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 50 | 50 |
| | customer assurance | Correlation Coefficient | .822[**] | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 50 | 50 |

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

**Source**: SPSS, 21.0

According to the data in the table above, there is a high and favourable association between GPS control and customer assurance ($r = 0.822$). According to the coefficient of determination ($r2 = 0.68$), GPS may account for 68% of the change in customer satisfaction. A substantial impact is shown by the significant value of 0.000 (p 0.05). The null hypothesis was disproved as a result. Consequently, in Port Harcourt, the Global Positioning System significantly affects client satisfaction with pharmaceutical services

**Ho$_3$:** RFID **(**Radio Frequency Identification) has no influence on the reliability of pharmaceutical services in Port Harcourt.

## Table 4.12 Kendall's tau_b Tests Output

**Correlations**

| | | | RFID | reliability |
|---|---|---|---|---|
| Kendall's tau_b | RFID | Correlation Coefficient | 1.000 | .812[**] |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 50 | 50 |
| | Reliability | Correlation Coefficient | .812[**] | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 50 | 50 |

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

**Source: SPSS,21.0**

According to the data in the table above, there is a substantial and favourable association between RFID and dependability (r = 0.812). According to the coefficient of determination (r2 = 0.55), RFID may account for 55% of the change in dependability. A substantial link is indicated by the significant value of 0.000 (p 0.05). The null hypothesis was disproved as a result. Therefore, RFID (Radio Frequency Identification) has a big impact on Port Harcourt's pharmacy services' dependability**.**

**Ho₄:**     There is no significant influence of RFID on customer assurance of pharmaceutical services in Port Harcourt

**Table 4.13 Kendall's tau_b Tests Output**

**Correlations**

|  |  |  | RFID | customer assurance |
|---|---|---|---|---|
| Kendall's tau_b | RFID | Correlation Coefficient | 1.000 | .772** |
|  |  | Sig. (2-tailed) | . | .000 |
|  |  | N | 50 | 50 |
|  | customer assurance | Correlation Coefficient | .772** | 1.000 |
|  |  | Sig. (2-tailed) | .000 | . |
|  |  | N | 50 | 50 |

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

**Source**: SPSS, 21.0

According to the data in the table above, there is a substantial and positive association between RFID and client assurance (r = 0.772). According to the coefficient of determination (r2 = 0.60), RFID may account for 60% of the change in consumer assurance. A substantial impact is indicated by the significant value of 0.000 (p 0.05). The null hypothesis was disproved as a result. As a result, RFID has a big impact on Port Harcourt's consumer satisfaction with pharmaceutical services

**Discussion of Findings**

From the findings of this study, there is significant influence of Global Positioning System on reliability of pharmaceutical services in Port Harcourt. This was shown by the outcomes in table 4.10 with correlation co-efficient (0.786) and significant value 0.000 which lead to the study rejecting the null hypothesis of no significance influence of Global Positioning System (GPS) tracking system on the reliability of pharmaceutical services in Port Harcourt. This is consistent with our expectation apriori, which suggest that GPS tracking system positively relates with the reliability of pharmaceutical services. This adds to the validity of the claim made by the resource based theory which lay emphases on the fact that the productive of a firm resources lead to competitive advantage. This finding is also consistent with the study by Juma (2014) that tracking system helps to identify the position of shipment and inform the customer well in advance.

Also the findings suggest that the GPS tracking system has strong and positive influence on customer assurance of pharmaceutical services in Port Harcourt. This is evidenced in table 4.11 with the co-efficient determinism $r^2 = 0.68$ which indicate that 68% of change in customer assurance of pharmaceutical services in Port Harcourt is accounted for by GPS tracking. This finding is in agreement with our apriori expectation that there is a positive and strong influence of GPS tracking system on customer assurance of pharmaceutical services in Port Harcourt.

Again, the finding in table 4.12 indicates the RFID has positive effect on the reliability pharmaceutical services in Port Harcourt. This is shown by the significant value of 0.000 (P<0.05) which reveals a significant influence leading us to reject the null hypothesis and accept the alternate that Radio Frequency Identification (RFID) has a strong influence with the reliability of pharmaceutical services in Port Harcourt. This finding is in agreement with the resource-based theory that resources that are valuable and rare can lead to superior long term performance. When a company promise is dependably and accurately performed, the level of customer satisfaction increases. This finding validates the work of Ahm et al (2013) on evaluation of tracking and tracing for logistic operation.

Finally, table 4.13 shows that correlation co-efficient (r = 0.772) between RFID and customer assurance is strong and positive. With a significant value of 0.000 (P< 0.05) reveals a significant influence leading us to reject the null hypothesis and accept that there is a significant influence of RFID on customer assurance of pharmaceutical services in Port Harcourt. This discovery supports the New Vision theory, which claims that the integration of the two separate sensory modalities of touch and sight leads to the sense of moving things. This finding is consistent with Semeer et al(2009) .'s article, which offers guidance for enhancing the level of service provided by logistics service providers, pharmaceutical companies, and customers.

**Conclusion**

The results of this study lead us to the conclusion that the Global Positioning System (GPS) monitoring and the dependability of pharmaceutical services in Port Harcourt are significantly and favorably correlated. The GPS tracking system and client satisfaction with pharmaceutical services in Port Harcourt also have a significant and favourable association. Once more, RFID and the dependability of pharmaceutical services in Port Harcourt are positively and significantly related. Finally, RFID and customer assurance of pharmaceutical services in Port Harcourt have a strong and favourable association**.**

**Recommendations**
The following recommendations were made due to the findings of the study:
a)	In order to check counterfeiting, fake drugs distribution and consumption e-tracking devices (systems) should be used in the pharmaceutical industries in Port Harcourt and Nigeria.
b)	Government through its agencies should enact tracking and tracing regulations not only in the pharmaceutical industries but also in other areas of government activities like FMCG (Fast Moving Consumer Goods).
c)	Finally, e-tracking system should be developed through researches in the academics to widen the horizon of knowledge in this area of study.

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