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# The Role of Technology in Enhancing ERP's Impact on Organizational Performance among Nigerian Banks

Simeon, Baratuaipere[†1] and Dick, Diepriye I.J[2]

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**Abstract**

*This study investigated the role of technology in enhancing ERP's impact on organizational performance in Nigerian banks. The study utilized a cross-sectional survey research design and a regression analysis to examine how technology moderate the impact of ERP on the performance of Nigerian Banks. The technology acceptance model was used to underpin the study. The population of the study was the fourteen (14) quoted deposit money banks listed on the floor of the Nigerian stock exchange. The census study was adopted; hence the population was fully studied. However, five managers from marketing, operations, human resources, asset management and research/planning in each bank constituted the respondents of the study. Hence, seventy (70) managers were employed for the study. Data were collected through primary sources, seventy (70) copies of the questionnaire were distributed to the respondents after being pilot tested for validity and reliability. The research study made use of univariate and multivariate statistics for the analysis of data with the aid of the statistical package for social sciences (SPSS), version 25.0. The findings of the study revealed that technology positively and significantly moderates the influence of enterprise resource planning on organizational performance in the context of quoted deposit money banks in Nigeria. The study conclude that technology enhance resource planning and improves performance of quoted deposit money banks in Nigeria. We therefore recommend that management of the banks should make viable investments in technologies such as cloud-based ERP solutions and advanced analytics' tools to enhance real-time decision making. This will significantly improve banks' performance in the financial services market.*

## Introduction

The banking industry is evolving and every-changing due to shift in information and communication technologies. The emergence of technologies in the Nigeria's banking landscape have forced new scale of competition among players in the industry

*affiliation*: [1] Department of Marketing, Niger Delta University, Wilberforce Island Amasoama, Bayelsa State, Nigeria

[2]Department of Entrepreneurship & Marketing, Faculty of Management Sciences, FederalUniversity Otuoke, Bayelsa State, Nigeria

*email*: dickdiepriye@yahoo.com[1]; dickdd@fuotuoke.edu.ng[1]; thesimeons20@gmail.com[2].

[†] *corresponding author*

(Euphrasia, Mitha & Emmy, 2019). Thus, the challenges facing Nigeria's banks is to remain focused in business, be competitive and attract sustainable market share in the face of the emerging technologies in the financial services market (Euphrasia, Mitha & Emmy, 2019). The major driver of the banking industry globally and in Nigeria, is the deployment of information and communication technologies to enhance banking services operations.

The effective and efficient management of banking business in both developed and emerging economies is a function of integrating resources and proper planning of same with technology adoption for the optimal survival and continuous growth of the banking institution (Mjomba & Kavale, 2015). Hence, for the effective management of banking services, information flows through the functional divisions of the bank's workplace; operations, marketing, customer service, human resources, finance, research, and development. Resource planning should be made across the organization's functions with proper integration, coordination and information sharing for effective and efficient rendition of financial services to the bank's stakeholders (Mjomba & Kavale, 2015). Enterprises resource planning is the foundation or building block for all business including the banking business.

Enterprise resource planning is an information driven system that connect the entire company business process and functions such as marketing, human resources, finance, operations, research, and development (Kabir et al., 2017). Thus, enterprise resource planning drives business functions and lead the firm to success. For organizations with large scale operations and division orientation, enterprise resource planning is required as it help drive the day to day functioning of the work organization (Dusanka, 2010; Helo, 2011). Enterprise resource planning system helps to integrate and coordinate the functional departments of the workplace through the mediating influence of computer aided technology (Sadrzadehrafier et al., 2013). This drives the performance of work organizations.

Organizational performance is the successes or limitations firms record in business which are measured in financial and non-financial terms. Sometimes these performances can be positive or negative indicators which are important in business management (Dahlia & Bernadin, 2016). Most times, company's performance can be measured with profit growth, sales revenue growth, return on asset, return on equity, return on investment. Others are market share, customer retention, shareholders' wealth maximization, productivity and economic value added (Richard et al., 2009). Thus, management of most organizations periodically take stock of the performance of their firms in relationship with these performance metrics to consistently improve the performance and going concern of their firms.

Despite the widespread adoption of technology in Nigerian banks, there is limited research on how technology moderate the relationship between ERP implementation and organizational performance in the context of quoted deposit money banks in Nigeria is lacking. However, Olaoye and Kehinde (2017), investigated the impact of information technology on tax administration in South-west, Nigeria. The study employed descriptive research design with a causal investigation. Again, Ghorbani and Fahhimi (2013) studied the effect of technology and marketing strategies on innovation performance in the context of home appliances manufacturers in Esfahan province. The study employed regression analysis and ANOVA. Furthermore, Donat (2007) evaluated the impact of technology on the business strategy – performance

relationship in the context of Uganda SMEs. The study specifically examined the moderating influence of technology on business strategy and performance of SMEs in Uganda. The study employed qualitative research method.

Moreso, Achuonye and Nwiyi (2018), investigated information and communication technology and record keeping in secondary schools in Nigeria. The study made use of qualitative research method. Empirical literature on the role of technology on ERP implementation on organizational performance in the context of quoted deposit money banks in Nigeria was limited in the literature. This study aims to address these gaps by investigating the role of technology in enhancing ERP's impact on organizational performance in Nigerian quoted deposit money banks, which is anchored on the technology acceptance model. Therefore, the objective of this study to investigate the moderating influence of technology on enterprise resource planning and organizational performance of quoted deposit money banks in Nigeria.

## Literature Review
## Theoretical Framework

*The Technology Acceptance Model*
The technology acceptance model (TAM) was propounded or developed by Davis in 1989. It is a model that is generally employed to explain organizations or individual acceptance, use and deployment of technologies (Surendran, 2012). The model is operationalized to predict the use and acceptance of emerging technologies by corporations, government, individuals, and the publics. Most importantly, technology acceptance model or theory was put forwarded to underpin the use and acceptance of all forms of technologies, especially information and communication technology (Surendran, 2012). Furthermore, two critical factors underpin this theory: the perceived usefulness and the perceived ease of deploying the technology. This is imperative in computer usage and the related conduct of people at work leveraging the technology. The technology acceptance model (TOM) is made up of four variables such as perceived ease of use, perceived usefulness, attitudes and actual behavior or conduct (Momani & Jamous, 2017).

Moreso, the development, management and adoption of the technology acceptance model is based on three premises: adoption, validation, and extension. Technology adoption involves testing the innovation among varied information system applications. In the validation of the model, scholars are of the view that, TAM uses objective evaluation, examination, and measurement of users. The extension paradigm or premise involves the research scientists developing new variables, constructs, factors and relationship between the TAM constructs or variables (Momani & Jamous, 2017). Thus, the relevance of the technology acceptance model to this study is that enterprise resource planning and banks' performance management requires the adoption and usage of emerging technologies to drive modern day banking services operations. Thus, the use technology makes efficient implementation of ERP for successfully performance of banks.

*Enterprise Resource Planning*
The business environment is rapidly changing due to globalization and liberalization commerce and trade across the world. This is largely due to information and transportation technologies (Euphrasia, Mitha & Emmy, 2019). Thus, the incorporation of enterprise resource planning in the workplace is imperative for the

firm to adapt to the changes of the business space while integrating business functions and information sharing through a unified database for effective and efficient business decisions.
According to Euphrasia, Mitha & Emmy (2019), enterprise resource planning is the core software program used by organization to connect, integrate, and coordinate information across the functional areas of the firm. ERP help the company manage the entire corporation's business process by leveraging shared databases and common use of management reporting tools. "ERP systems combine business processes and IT technologies from implementing organizations to facilitate information flow through business function". A most relevant part of enterprise resource planning is integrated which help t improve information communication and workflow across the organization's function, finance, marketing, production, human resources, research and development etc. (Ali, 2016; Le & Han, 2016). Hence, the ERP system drives both financial and non-financial of business.

In defining enterprise resource planning in an organizational context, Ali (2016) opined that enterprise resource planning system is a fully integrated corporate or business administration system encompassing the business functions of a company such as production, marketing, logistics, finance, human resources, research, and development etc. Enterprise resource planning "organizes and integrates operations processes and information flows to make optimum use of resources such as men, materials, money and machines". ERP is used by companies or institutions to integrate and manage the functional and most important parts of their businesses.
Enterprise resource planning system application is relevant to organizations because it helps drive resource planning by connecting all of the processes needed to operate their firms with the help of a single system (Ahlawat, 2011). Hence, enterprise resource planning system integrate human resources, marketing, finance, planning, purchasing, sales, and inventory etc. in the workplace. ERP software system can bring together all the processes needed to run an organization. ERP solution has been in existence over the years and many are now predominantly web-based applications that company management and users can access remotely (Parto, Sofian & Saat, 2016). An enterprise resource planning system can be in active if the firm doesn't implement it carefully.

Enterprise resource planning is the glue that connects the several computer systems for a complex and large company. The absence of ERP application, each unit in an organization would have its system optimized for the department related tasks. With the presence of enterprise resource planning software, each functional area in the workplace still has its system, but all the system can be accessed through one application with one interface (Velcu, 2007; Alkhaffaf & Aldalahmeh, 2016). Thus, with the ERP system in place an organization help the functional areas or departments of the firm to communicate and share information effectively and efficiently with the rest members of the firm. ERP collects information about the functionalities and activities of different departments at work, making the information accessible to other functional areas of the business where it can be productively utilized (Velcu, 2007; Ahlawat, 2011; Le & Han, 2015; Le & Han, 2016).

Enterprise resource planning has laudable characteristics such as the breath, depth and magnitude of the resource employed by the management of the organization. Institutional leaders in implementing enterprise resource planning in an organization should put into consideration the breath of the resources, its depth and

magnitude. This will help integrate the functional units of the organization in a database to manage the transmission of information and resulting decisions across the functional units of the organization (Mjomba & Kavale, 2015). Thus, enterprise resource planning as an emerging field in information management is good as a cost-effective tool and control mechanism in the workplace where organizational activities are coordinated and managed with the use of a single database. The importance of ERP system application in the organization cannot be over-emphasized. The next section discusses the concept of organizational performance.

*Organizational Performance*

Organizational performance is an important construct to both practitioners and academics in the world of business. Performance of an organization has been offered various conceptual definitions. According to Richard et al., (2009), corporate performance covers three important areas of a company outcomes; financial performance indicators such as profit growth, return on asset, return on investment. It also encompasses product market performance such as sales and market share, shareholders value maximization, economic value added (Mjomba & Kavale, 2015). Most organizations in different sectors of operations measure their performance against these financial and non-financial indicators. There are seasons where these indicators will appear positive or negative for an organization. Management of an organization should work to always translate the firm to positive performance in the face of prevailing environmental dynamics.

Organizational performance is the most laudable objective in managing an organization as it serves as a dependent variable for most research interest. “Market competition for customers, input and capital make organizational performance essential to the survival and success of modern business”. Organizational performance is the successes or failures recorded by organization in the cause of carrying its business operations. This performance can be checked quarterly, half-yearly and at the end of the financial year (Haddadi & Yaghoobi, 2014). Hence, each company to access the quantum of utility and desirability of their business activities in the face of complex and ever-changing environment. This requires the determination and ranking of the most important key performance indicators. These indices provide important links among strategy, implementation, and ultimate superior value creation (Haddadi & Yaghoobi, 2014).

Companies should develop framework for the identification and prioritization of key performance measures that an organization should focus on for the definition of firm’s progress and objectives. Companies in today’s competitive space should be able to monitor their objectives and goals which include costs, profit, quality, satisfaction etc. and set up relevant strategies to reach their goals (Magretta & Stone, 2002). Hence, key indicators and performance measurement were important element in turning corporate mission, objectives, and strategies into practical reality. Edwards & Thomas (2005) posit that key performance indicators were computations of data used to access organization’s performance. These indicators also show how effective and efficient an organization’s operational activities should be.

Performance measurement in most organizations is still largely based on financial data for the purpose of coordination and control. There are different streams of research which strive to balance the effectives of financial and non-financial indicators of performance (Bremser & Barsky, 2004; Hudson et al., 2001). Thus,

making the integration among performance, strategy and firm purpose is a challenging business. The purpose of a company should be well defined, strategic choices to be articulated with resources to execute same. This will bring about organization's financial and non-financial performance. The advantage of positive performance outcome is to maximize shareholders value and ensure going concern of the company.

Organizational performance is important to all sizes of organization be it small, medium, or large organization. Companies management play vital role in the promotion and management of their industries in both developed and developing nations (Aigboje, 2018). It is important that management of an organization see to the effective performance of their companies. Performance of the companies can be achieved by adopting a wide-ranging set of activities in the workplace. The next section discusses the measures of organizational performance.

*Technology*

Technology as a construct is the moderating or contextual factor in this study. Technology is the introduction or manufacturing of a new concepts, products and services. Technology is defined in terms of information and hard activities and competence and changes in materials used for the transformation of input resources to output of goods and services. It involves knowledge and capabilities employed by enterprise members for production of new concepts, products, idea or services (Rousseau & Cooke, 1984; Donat, 2007).

According to Robbins (1996), technology is conceptually defined as how companies transform input materials and information into output of goods and services. Technology is considered as an internal contingency factor that influence organizational structure. The world of business today is dynamic and ever-changing due to globalization and technological advancement which has shaped the marketplace. Technological innovation is an important and critical variable for companies to create value and sustainable and superior advantages for shareholders (Ghorbani & Fakhimi, 2013).

According to Ghorbani & Fakhimi (2017), technology could be defined as "the making usage and knowledge of tools, machines, techniques, craft, systems or methods of organization in order to solve a problem or perform a specific function". Technology is the medium through which companies propagate their deliverables to the market. Today, technology is evolving from production or manufacturing technology, to information and communication technology (Ghorbani & Fakhimi, 2013). Thus, technology is a major factor and tool for most businesses, it enables the transaction of business activities such as production, marketing, finance, research and development, personnel management etc. Again, information and communication technologies are the emerging innovation and creativity where businesses connect from one nation to another, thus, making the world a global village.

Technology has always changed how businesses work. What is exceptionally different today is the dramatic change in the development of commerce and the expectations for better experiences from business stakeholders (Karimi, 2014). Thus, today information technology is a part of enterprise resource planning which include

complex technology such as radio frequency identification and voice recognition system. Gupta (2003) articulated that technology is the most widely used construct and driver of enterprise productivity. Technology help organization to take advantage of economies of scale in production and enhance globalization of businesses (Karimi & Namusonge, 2014).

The management of the 21st century business requires technology. Today, there is no sector of an economy that can survive without technology. Technology is the wave in business transformation. "Technology came into currency in its modern sense which was made popular by Thorstein Veblen in the 1920s and 1930s technological unemployment. Technology has contributed significantly to the growth and development of industries (Donat, 2007; Gupta, 2003). It is clear in all facets of human endeavours that technology is a strong mediating factor, facilitating all kinds of businesses around the world. The next section will discuss the empirical literature of studies that were done which are relevant to the content scope of the study.

## Conceptual Framework of Study Variables and Hypothesis Development

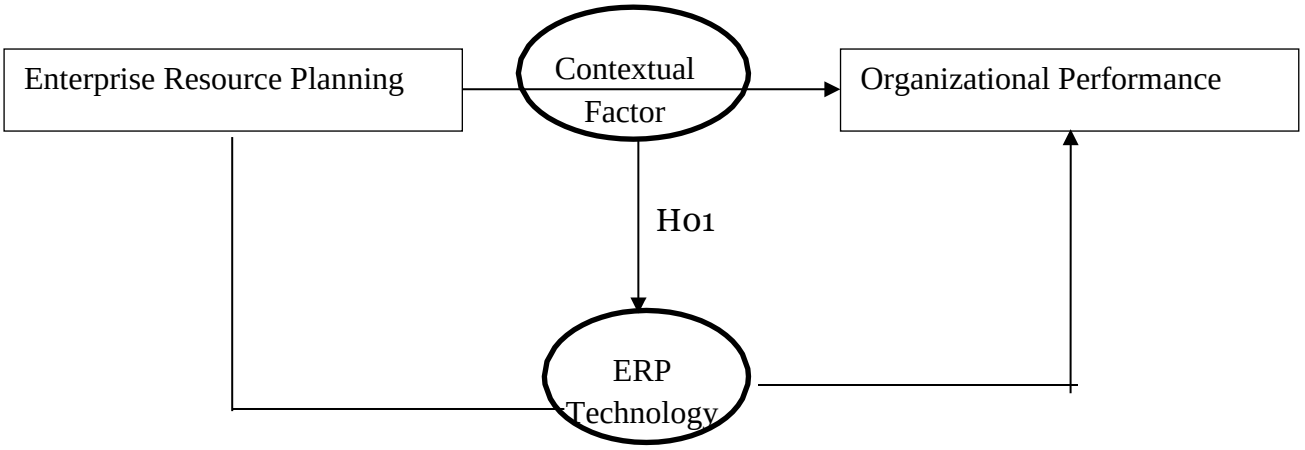



Fig. 1 Conceptual Framework of Study Variables
Source: Kabir, Muhammad, Ramadan & Hilary (2017).

*The Moderating Influence of Technology on Enterprise Resource Planning and Organizational Performance*

Technology is a viable construct that serves as business enabler. It helps to drive the functional processes of business, be it marketing, production, finance, human resources and research and development. Based on the foregoing, Olaoye & Kehinde (2017), investigated the impact of information technology on tax administration in South West, Nigeria. The study employed descriptive research design together with multiple regression analysis. The result of the study revealed that information technology affects tax productivity of South West Nigeria.

The positive moderating influence of technology on business was also studied by Ghorbani & Fakhimi (2013), the scholars studied the effect of technology and marketing strategies on innovation performance from the premise of the organizational project management. This is a case study of home appliances

manufacturing companies in Esfahan province. The study made use of regression analysis and ANOVA. The result of the study revealed that technology and marketing strategies have positive and significant effect on innovative performance from the premise of firm project management.

ERP's Technology is a strong impact factor on business performance. Following this premise Donat (2007), studied the impact of technology on the business strategy performance relationship in building core competence in Uganda SMEs. The study specifically examined the moderating influence of technology on business strategy and performance in the context of SMEs in Uganda. The scholar employed secondary literature review data and the result revealed that, technology significantly moderate the relationship between business strategy and business performance in the context of SMEs in Uganda.

Information and communication technology drives business performance. This is supported by Achuonye & Nwiyi (2018), the scholars studied the information and communication technology and record keeping in secondary schools in Nigeria. The study employed qualitative research methods and the finding is that, information and communication technology positively influence record keeping in the context of secondary schools in Nigeria. In the same vein, technology is an important driver of business organizations. This is supported by the empirical works of Esha & Ashank (2017), the scholars studied the association between marketing and technology and the role of technology in modern marketing. The study employed qualitative literature review methodology. The findings is that, technology especially, digital technology significantly influence marketing operations.

Information technology utilization by companies enhance customer satisfaction. Thus, Nyameino, Bonuke & Cheruiyot (2015), examined the moderating influence of information technology utilization on the relationship between communication and customer satisfaction. The study employed descriptive research design. A multiple regression model was used for the analysis. The study revealed that, information and communication technology utilization significantly moderate the relationship between marketing practices and customer satisfaction. Thus, ICT is a strong mediating factor for the nexus between communication and customer satisfaction.

Information technology plays vital roles in business including, warehousing management. The works of Karimi & Nanusonge (2014), is highly supportive. The scholars examined the role of information technology on warehouse management in Kenya in a context specific of Jomo Kenyatta University of Agriculture and technology. The study employed descriptive research methodology. The finding of the study is that ICT utilization improves warehouse management of Jomo Kenyatta University of Agriculture and technology in Kenya. This is also supported by Oppong, Adjei & Poku (2014), the scholars studied the role of information technology in building customer loyalty in banking in the context of agricultural development in banking in the context of agricultural development bank in Sunyani. The study employed descriptive case study and the findings of the study is that information technology drives customer loyalty of banks.

Utilization of information and communication help to enhance school record administration. Noah, Akpabio & Sammy (2014), studied the association between ICT and record keeping in secondary schools in Akwa-Ibom State, Nigeria. The study

employed descriptive survey research design methods. The finding of the study is that information and communication technology usage in secondary schools help enhance school record administration. Again, ICT improves inventory control in transport companies in the Kenya ferry services industry. This was investigated by Mongare & Nasidai (2014), the study made use of descriptive research methods and the findings is that technology significantly and positively impact inventory control in the areas of efficiency and operational cost reduction, information access easing, thus, improving organizational performance. From the works above, one can conclude that technology positively moderates the relationship between enterprise resource planning and organizational performance of quoted deposit money banks in Nigeria

## Methodology

This study adopted the quantitative research paradigm. The cross-sectional survey research design was employed with an explanatory or hypotheses testing research design and a causal study. This research design is appropriate because it is most ideal to study all the variables at a one-time investigation. Again, the study focus is to look at the impact of technology on the causal relationship between ERP and organizational performance. The population of the study was the fourteen (14) quoted deposit money banks in Nigeria. The census study was adopted were the population was fully studied. However, five managers from marketing, operations, human resources, asset management and research/planning in each bank formed the respondents of the study. The choice of the census study was informed because the population was small and the employment of five managers for the study is to realize broader objective responses from the decision makers as against dealing with individual bank's responses. Thus, seventy (70) managers were employed for the study. Data were collected through primary sources. Seventy (70) copies of the questionnaire were distributed to the respondents after being pilot tested for validity and reliability. The research study made use of univariate and multivariate statistics for the analysis of data with the aid of the statistical package for social sciences (SPSS) version 25.0

## Results

Table 1 provides explanations for the demographic characteristics of bank managers in Nigeria. Field report shows that seventy (70) copies of the questionnaire were distributed to the respondents. Fifty-nine (59) copies were used for the study from the sixty-two (62) copies that were returned after coding and editing/data cleansing. The data deployed for the analysis represent 84% of the total number of questionnaires distributed. The distribution of respondents shows that 7(11.9%) respondents were from marketing, 8(13.6%) were from operations unit, 13(32.0%) were from human resource department, 17(28.8%) were from asset management unit while 14(23.7%) were from research and planning unit. Again, managers gender distribution revealed that, 38 (64.4%) were male managers while 21(35.6%) were female managers.

Furthermore, the age distribution of managers shows that 4(6.8%\0 respondents were in the age range of 18-30, 15(25.4%) were in the age range of 31-38, 18(30.5%) respondents were in the age range of 39-49. Again, 16(27.1%) respondents fall in the age range of 50-59 and 6(10.2%) respondents were in the age range of 60 years and above. The designation of bank managers distribution revealed that 25(42.4%) of the

respondents were middle level managers while 34(57.6%) were top level managers. Again, managers distribution of working experience shows that 2(3.4%) respondents had worked for less than five (5) years. 6(10.2%) respondents had worked for 5-10 years. 9 (15.3%) respondents had worked for 11-15 years, 14(23.7%) respondents had worked for 16-20 years, 16(27.1%) respondents had worked for 21-25 years. Again, 12(20.3%) respondents had 26-30 years working experience. Thus, managers in the banking industry have reasonable years of experience.

**Table 1 Demographic Information of Bank Managers**

| **Variables** | **Frequency** | **Percentage (%)** |
|---|---|---|
| Questionnaire distributed | 70 | 100 |
| Questionnaire returned | 62 | 88 |
| Questionnaire used | 59 | 84 |
| **Respondents Distribution** | | |
| Marketing | 7 | 11.9 |
| Operations | 8 | 13.6 |
| Human Resource | 13 | 22.0 |
| Asset Management | 17 | 28.8 |
| Research/planning | 14 | 23.7 |
| Total | 59 | 100.0 |
| Age Distribution of Respondents | | |
| 21-38 | 8 | 16 |
| 39-49 | 20 | 40 |
| 50-59 | 19 | 38 |
| 60-above | 3 | 6 |
| Total | 50 | 100 |
| **Gender Distribution** | | |
| Male | 38 | 64.4 |
| Female | 21 | 35.6 |
| Total | 59 | 100.0 |
| **Age (Years) Distribution** | | |
| 18-30 | 4 | 6.8 |
| 31-38 | 15 | 25.4 |
| 39-49 | 18 | 30.5 |
| 50-59 | 16 | 27.1 |
| 60-above | 6 | 10.2 |
| Total | 59 | 100.0 |
| **Bank Managers Designations** | | |
| Middle Level | 25 | 42.4 |
| Top level | 34 | 57.6 |
| Total | 59 | 100.0 |
| **Managers' Years of Working Experience** | | |
| <5 | 2 | 3.4 |
| 5-10 | 6 | 10.2 |
| 11-15 | 9 | 15.3 |
| 16-20 | 14 | 23.7 |
| 21-25 | 16 | 27.1 |
| 26-30 | 12 | 20.3 |
| **Total** | **59** | **100.0** |

*Source: Research Data, 2024*

*Test of Hypothesis*

**$Ho_1$** *Technology does not significantly moderate the influence of enterprise resource planning on organizational performance of quoted deposit money banks in Nigeria*

**$H_{A1}$** *Technology significantly moderates the influence of enterprise resource planning on organizational performance of quoted deposit money banks in Nigeria*

Table 2 indicates model summary for the influence of technology on enterprise resource planning and organizational performance of quoted deposit money banks in Nigeria. In the step wise regression model, it was shown in model 1 that the regression coefficient is 0.880 which means, enterprise resource planning has significant influence on organizational performance. Again, the coefficient of determination is R2 = 0.879 and 0.878 adjusted, showing that 88% of the variations or changes in organizational performance is due to enterprise resource planning. While the remaining 92% changes in organizational performance were due to externalities or stochastic variable. However, the introduction of technology as indicated in model 2 increase the regression coefficient and the coefficient of determination to 0.993 and 0.987 respectively. indicating that, technology significantly moderates the influence of enterprise resource planning on organizational performance

From the ANOVA output it was revealed that, the model statistically and significantly predict the outcome variable at f(2,56) = 1319.043, p≤ 0.05, R2 = 0.993. Thus, technology statistically and significantly moderates the influence of enterprise resource planning on organizational performance of quoted deposit money banks in Nigeria.

Table 2 Summary Model Moderating Influence of Technology on Enterprise Resource Planning on Organizational Performance

**Model Summary**

| | | | | Std. Error of the | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .880[a] | .879 | .878 | .516 | .879 | 1319.043 | 2 | 56 | .000 |
| 2 | .993[b] | .987 | .986 | .416 | .108 | 31.087 | 1 | 55 | .000 |

a. Predictors: (Constant), Enterprise Resource Planning

b. Predictors: (Constant), Enterprise Resource Planning, Technology

**Source**: SPSS Output, Version 25.0 (2024)

Table 3 ANOVA of Influence of Technology on Enterprise Resource Planning and Organizational Performance

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 701.051 | 2 | 350.525 | 1319.043 | .000[b] |
| | Residual | 14.882 | 56 | .266 | | |
| | Total | 715.932 | 58 | | | |
| 2 | Regression | 706.425 | 3 | 235.475 | 1362.178 | .000[c] |
| | Residual | 9.508 | 55 | .173 | | |
| | Total | 715.932 | 58 | | | |

*a. Dependent Variable: Organizational Performance*
*b. Predictors: (Constant), MDV, Enterprise Resource Planning*
*c. Predictors: (Constant), MDV, Enterprise Resource Planning, Technology*
***Source**: SPSS Output, Version 25.0 (2024)*

Table 4 Coefficients of Influence of Technology on Enterprise Resource Planning and Organizational Performance

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 3.550 | 2.641 | | 1.344 | .184 |
| | Enterprise Resource Planning | .074 | .095 | .159 | .783 | .037 |
| 2 | (Constant) | 10.111 | 2.433 | | 4.155 | .000 |
| | Enterprise Resource Planning | .245 | .096 | .524 | 2.559 | .013 |
| | Technology | .204 | .037 | .155 | 5.576 | .000 |

a. Dependent Variable: Organizational Performance

**Source**: SPSS Output, Version 25.0 (2024)

In table 4, the unstandardized coefficient indicates how much the dependent variable varies with the independent variable with the introduction of technology. Thus, the coefficient has a value of 0.156 with a corresponding probability value of 0.000, this means technology significantly moderate the influence of enterprise resource planning on organizational performance of quoted deposit money banks in Nigeria.

## Discussion

Technology in this study was found to significantly moderate the influence of enterprise resource planning on organizational performance of quoted deposit money banks in Nigeria. This is evidenced with the strong values of the regression coefficient and the coefficient of determination when technology was introduced in the regression model. Thus, technology positively and significantly moderates the

influence of enterprise resource planning on organizational performance in a context specific of quoted deposit money banks in Nigeria.

The above findings agree with the study of Olaoye & Kehinde (2017), the authors investigated the impact of information technology on tax administration in South West Nigeria. The study made use of descriptive research design with multiple regression analysis. The result of the study revealed that information technology affects tax productivity of South West Nigeria. This is also supported with the empirical investigation of Ghorbami & Fakhimi (2013), the scholars investigated the association between technology and marketing strategies on innovation performance from the premise of organizational project. This is a case of home appliance manufacturing companies in Esfahan province. The regression model was employed, and the result is that technology and marketing strategies have positive and significant effect on innovation performance.

Furthermore, our empirical findings are also enhanced with Donat (2007), the scholar studied the correlates between technology and business performance in the context of Uganda's SMEs. The study specifically studied the moderating role of technology on business strategy and performance in the context of SMEs in Uganda. The result is that technology significantly moderates the relationship between business strategy and business performance of SMEs in Uganda.

The finding of our study agrees with the works of Achuonye & Nwiyi (2018), this study enhanced our findings by discovering that information technology help drive record keeping in the context of secondary schools in Nigeria. This is also supported with (Oppong, Adjei & Poku, 2014). These studies enhanced our findings by discovering the imperatives of information technology deployment in banks and it was revealed that, it enhances customer services and relationship management. From all these indications, it was revealed that, technology is laudable moderator in the relationship between enterprise resource planning and organizational performance in the context of quoted deposit money banks in Nigeria. Thus, quoted banks in Nigeria should prioritize technological investments to enhance ERP's effectiveness. This will significantly improve the performance of quoted banks in Nigeria.

## Conclusion

This study investigated the role of technology in enhancing ERP's impact on organizational performance in Nigerian banks. From the research results we conclude that technology adoption by banks significantly enhance resource planning and improves performance of quoted deposit money banks in Nigeria. Thus, banks should integrate technologies such as cloud-based technology and advanced analytics in ERP decision making and implementations. This will effectively drive optimal decisions in real time and enhance banks' performance.

## Recommendations

The following recommendations were made. First, the management of the quoted deposit money banks in Nigeria should make viable investments in technologies such as cloud-based ERP solutions and advanced analytics' tools to enhance real time decision making. This will significantly improve banks' performance. Second, the quoted deposit money banks should continuously embrace emerging technological innovations in the financial services market. This will enhance continuous resource

planning in adapting to changing industry requirements and significantly improve the banks' performance. Finally, he management of the quoted deposit money banks in Nigeria should take leadership in introducing new technologies such as disruptive cloud-based innovations in the industry. This will improve ERP implementation and bring about successful banks' performance.

## Theoretical Contribution

Scholars have made contributions in the areas of technology adoption and business performance. Thus, Olaoye and Kehinde (2017), investigated the impact of information technology on tax administration in South-west Nigeria. The study made use of descriptive research design with a causal investigation. Ghorbani & Fakhimi (2013) evaluated the effect of technology and marketing strategies on innovation performance in the context of home appliances manufacturers in Esfahan province. The study employed regression analysis and ANOVA. Again, Donat (2007) studied the impact of technology on the business strategy – performance relationship in the context of Uganda's SMEs. The study specifically investigated the moderating influence of technology on business strategy and performance of SMEs in Uganda. The study employed qualitative research method.

Furthermore, Achuonye and Nwiyi (2018) evaluated information and communication technology and record keeping in secondary schools in Nigeria. The study adopted qualitative research method. However, the investigation of the moderating influence of technology on enterprise resource planning and organizational performance in the context specific of quoted deposit money banks in Nigeria was neglected by previous studies. This study was able to fill this gap in the extant literature of technology adoption, enterprise resource planning and organizational performance.

## Theoretical/Practical Implications

The theoretical or academic implication of this study is that this research work will be a companion for academics, scholars, and graduate students in the areas of technology and innovation, resource management and organizational performance management. The managerial or practical implication of this study is that it serves as guide for banks' managers in technology adoption resource planning for workplace success.

## Suggestion for Further Studies

Researchers and scholars should replicate this study in other sectors of Nigeria. Again, future research efforts should be carried out in the banking industries of other nations and cultures including non-banking industries of other countries, regions, and states. This is to measure whether the same, similar, or different results will be obtained.

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