# **KOGI JOURNAL OF MANAGEMENT**

VOL. 8 No. 3, November, 2022

http://managementjournal.ksu.com.ng

Page | 164

# MARKETING OF INNOVATION AND TECHNOLOGY MANAGEMENT ON ORGANIZATIONAL EFFICIENCY OF SELECTED MONEY DEPOSIT BANKS IN UMUAHIA, ABIA STATE

# <sup>1</sup>Boniface, M. O. & <sup>2</sup>Meruo Emmanuel Okeoma

<sup>1</sup>Department of Marketing, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria

bonifaceosumba@gmail.com

<sup>2</sup>Department of Business Administration, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria immaskills@gmail.com

#### **Abstract**

The study anchored on the impact of marketing of innovations and technology management on organizational efficiency of selected money deposit banks in Umuahia, Abia state. The study adopted survey design; and primary and secondary data were used. The population of the study was 155 employees and the sample size of 112 respondents was obtained using Taro Yamane. The data gathered for the study was analyzed using descriptive analysis and hypotheses tested using correlation and regression. The study revealed that Mobile banking platform has a significant relationship with organizational performance. Finally, the study recommended that the need for technological innovation in the money deposit banks in Abia State, especially we are in a digitalized economy.

**Keywords:** Technology Management; Internet Use Banking; Point of Sales; Technological Innovations; Organizational Efficiency.

#### **INTRODUCTION**

# **Background of the Study**

Technology management, sometimes called business technology innovation is an important element in today's world as products, services and technologies are moving faster to take place in customers' hearts, thus generating unbreakable benefits and profits to the firms and businesses. Technology management has started a long time ago, and has been applied by many successful firms, like banks so they could compete with other existing competitors. Technology management is very vital for a bank to maintain its competitive advantage, performance and customers' satisfaction. It focuses on the technological aspects of a product or service rather than covering the entire organization business model. It is important to clarify that innovation management is driven by technology. (Ilo, Ani and Chioke, 2014).

Technology management is the process of implementing new ideas, related with practical knowledge or experience, into a productive process. Technological management results in lower production or service costs or greater value added to services rendered. Lower service costs can arise from better service processes. Greater value added can arise

from new features or higher quality. After applying a productive method for a particular service during a long period of time, organizations and business finds opportunities of improvement (Gilaninia, 2011).

Technology management usually is an incremental process that comes from the experience gained through the fulfillment of a productive process during a period of time. Technology management is not like technological innovation depends on the advancement of science (Wang, Lin and Tang, 2003). This is because innovation can be seen as a social process in which technical knowledge and inventions are selectively exploited on behalf of (corporate or government) institutional agendas driven by marketplace values or political policies (Yan, Guan, Pun and Tan, 2004).

The essence of technology management is because today's business environment is very dynamic and experiences rapid changes as a result of creativity, innovation, technological changes, increased awareness and demands from customers. From time immemorial, technological management has always played a prominent role in human life but the emergence of social progress and the vigorous development in science and technology has immeasurably increased the role of information in every facet of human endeavor (Waihenya, 2012).

#### Statement of the Problem

For any organization to succeed, it should be able to compete within its market, and attempt to rub shoulders with other competitors in the international frontiers. The organization like the banks, must imbibe the culture of innovation because of its importance as confirmed in many studies (Daniels, 2002). Unfortunately, Nigerian banks found it difficult to stand against its competitors from foreign countries. The local companies cannot compete with the foreign counterparts in terms of product quality and other areas of marketing capabilities. The foreign firms have strategic plan as a tool-kit for achieving their feet, which is also lacking among the domestic banks. The resultant effect is while the local banks performance is on the decline, the multinationals are booming. A cursory look at the above studies showed that there was no research on the effect of technological innovation on organizational effectiveness of banks in Nigeria. It is on this background that the research studied the impact of technological innovation organizational effectiveness of selected deposit money banks in Umuahia, Abia state.

#### **Objectives of the Study**

The main objective of this study was to evaluate the impact of technological innovation on organizational effectiveness of selected deposit money banks in Umuahia, Abia state.

However, the specific objectives are to:

i. evaluate the effects of mobile banking on organizational performance of money deposit banks in Umuahia, Abia State;

- ii. ascertain how internet-use transactions affects organizational efficiency of money deposit banks in Umuahia, Abia State;
- iii. examine how point of sales system affects customer satisfaction of money deposit banks in Umuahia, Abia State;
- iv. analyze how technological innovation adoption affects profitability of money deposit banks in Umuahia, Abia State.

#### **Research Questions**

- i. What are the effects of mobile banking on organizational performance of money deposit banks in Umuahia, Abia State?
- ii. How do internet-use transactions affect organizational efficiency of money deposit banks in Umuahia, Abia State?
- iii. How does point of sales system affect customer satisfaction of money deposit banks in Umuahia, Abia State?
- iv. How does technological innovation adoption affect profitability of money deposit banks in Umuahia, Abia State?

## **Research Hypotheses**

- **HO**<sub>1</sub>: Mobile banking has no significant effect on organizational performance of money deposit banks in Umuahia, Abia State.
- **HO<sub>2</sub>:** Internet-use transactions have no significant effect on organizational efficiency of money deposit banks in Umuahia, Abia State.
- **HO<sub>3</sub>:** Point of sales system has no significant effect on customer satisfaction of money deposit banks in Umuahia, Abia State.
- **HO**<sub>4</sub>: Technological innovation adoption has no significant effect on profitability of money deposit banks in Umuahia, Abia State.

## **REVIEW OF RELATED LITERATURE**

The related literature was reviewed in this study.

### **Technological Innovation**

Technology management refers to the process through which technological advances are planned, coordinated, and produced to enhance organizational performance. There is emphasis on innovation process; which includes a set of activities that contribute to increase in the capacity to produce new goods and services (product innovations); and the management aspect that seek to implement new forms of production (process innovations). Therefore, the concept of technology management is associated with the idea of a flow generation, application, dissemination of technologies (Ayres, 2008) Technology management, technological innovation and core competitiveness enjoy symbiotic relationship (Prhanlad & Hamel, 1990). Technology Management Capability (T.M.C) is an

important component of the core competitiveness of the banking industry, and core competitiveness play a role in promoting or influencing technology management, through the avenues of technological innovation (Lia, 2001; Wang, Wang, Lin & Tang, 2003; BOA Annual report, 2007).

# **Types of Technological Innovation and Management Platforms**

The central meaning of technological innovation thus relates to renewal or improvement, with novelty being a consequence of this improvement. In organizations, innovation is the multi-stage process whereby organizations transform ideas into improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace (The Oslo Manual, OECD, 2005). An organization needs to possess dynamic capabilities to adjust in order to respond to the external environment. The fall-out of above analysis is to create value for our product to be better priced and purchased in the market. To innovate is to create value. This is the essence of strategic marketing derived from the corporate strategic planning capabilities (According to Kazmi (2008; Kim & Mauborgne, 1999).

# **Technological Management and Innovations in the Banking sector**

The primary role of technology management is to assure the survival of the entity, as well as the business ecosystem, which in turn is based on achieving sustainable financial performance (Ayres, 2008; Abernathy & Utterback, 2005; Kelley and Brooks, 2008; Ibikunle & James, 2012; Gilaninia, 2011; Ovia, 2001). The use of ICT has delivered a wide range of value added products and services to bank customers. The use of information technology in banking operations is called electronic banking. The use of e-banking can contribute to improved bank performance, in terms of increased market share, expanded product range, customized products and better response to client demand (Josiah and Nancy, (2012; Ojokuku and Sajuyigbe, 2012).

Mobile Banking Technologies: The importance of continuously monitoring and adapting to marketing environment changes by companies which have recognized that businesses are constantly spinning out new opportunities and threats comes as a consequence of spotting the need for customer care techniques and services (Ivatury, 2008). This calls for embracing of an outward – inward organization's view of their performances. Financial services delivery and consumption has experienced major changes during the last years. Technological development has reshaped the business environment. The banking industry is among the leading sectors in adopting and utilizing the internet and mobile technology on consumer markets and consequently its service delivery has undergone changes unprecedented in its history (Donner, 2007; Coelho & Easingwood 2003; Coelho and Easingwood, 2003).

## The Impact of Technological Innovation Capability on Company's Performance

The impact of technological innovation capability on company's performance is enormous. Innovation is an interactive process characterized by technological interrelated

uses between sub-system and it enhances customer competence and technological competence (Daniels, 2002). To Galende and Fuente (2003), technological innovation has impact on commercial resources, organizational resources and intentions. It impacts on the firm or industry, suppliers and customers, as well as results in flexibility innovation, efficiency and relatively higher speed. Beaver (2002) believes that innovation is an essential element for economic progress of a country and competitiveness of an industry. Innovation plays an important role not only for large firms, but also for SMEs (Jong and Vermeulen, 2006; Anderson, 2009). Sandvik (2003) argues that innovation is one of the most important competitive weapons and generally seen as a firm's core value capability. Innovation is also considered as an effective way to improve firm's productivity due to the resource constraint issue facing a firm (Lumpkin and Dess, 1996). Bakar and Ahmad (2010) add that the capability in product and business innovation is crucial for a firm to exploit new opportunities and to gain competitive advantage

Barney, (1991), Kuralko and Hodgetts, (2006) and Rakesh, (2006) asserted that product innovation is considered as a development and a new application, with the purpose of launching newness into the economic area. Also, Rainey, (2005) submitted that product innovation involves the conceptualization, commercialization, development, design, and validation of new product, which provides higher value or utility to all the stakeholders of that product. However, Chandy and Tellis, (1998), Gronhang and Kaufinan, (1998), and Rajee, (2005) described product innovation as a source of competitive advantage to the innovator and at the same time can lead to a sustainable increase in firm's profits at difficult times. But Kotler, (2004) referred to innovation as a new ways of thinking, which in turn can lead to controlling costs by creating more efficient ways to develop products, fostering creative ways to collaborate with outside resources, or improving business processes in a way to reduce spending, while also improving performance and outcomes (Eisenhardt & Martin, 2000; Wang & Ahmed, 2004).

**Point of Sales:** The point of sale (POS) or point of purchase (POP) is the time and place where a retail transaction is completed. At the point of sale, the merchant calculates the amount owed by the customer, indicates that amount, may prepare an invoice for the customer (which may be a cash register printout), and indicates the options for the customer to make payment. It is also the point at which a customer makes a payment to the merchant in exchange for goods or after provision of a service. After receiving payment, the merchant may issue a receipt for the transaction, which is usually printed but is increasingly being dispensed with or sent electronically (Oluwagbemi, Abah and Achimugu, 2011). To calculate the amount owed by a customer, the merchant may use various devices such as weighing scales, barcode scanners, and cash registers. To make a payment, payment terminals, touch screens, and other hardware and software options are available. The point of sale is often referred to as the point of service because it is not just a point of sale but also a point of return or customer order. If there is a price change, this can also be easily done through the inventory window. Other advantages include the ability to implement

various types of discounts, a loyalty scheme for customers, and more efficient stock control (Ovia, 2001).

Customer Satisfaction: Customer satisfaction is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business and is often part of a Balanced Scorecard. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy (Ovia, 2001). Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty. Their principal use is twofold: Within organizations, the collection, analysis and dissemination of these data send a message about the importance of tending to customers and ensuring that they have a positive experience with the company's goods and services (Oluwagbemi, Abah & Achimugu, 2011).

#### THEORETICAL FRAMEWORK

Some theories were examined in the course of this study. They are discussed herein.

### Roger's Diffusion of Innovation Theory

Innovations diffusion theory was coined by E.M. Rogers in 1962. It is a widely used theory in social science disciplines. The theory has its basis in communications and seeks to explain how an idea or product gains momentum and spreads through a specific population or social system. The result of this diffusion is that users take up the new idea or innovation. Adoption as brought out in the theory assumes that users react differently to an innovation compared to previous products or innovations. This facilitates the diffusion process. Diffusion of Innovations Theory posits that theoretically, 49%-87% of the variance of an innovator's rate of adoption is explained by its perceived attributes, type of innovation decision, and nature of social system which the innovation is diffusing and the extent of the agents" promotion efforts in diffusing the innovation (Hart and Gregor, 2007).

#### **Resource Base View Theory**

Resource Base View Theory was propounded by Peteraf in the year 1993. The resource-based theory (RBT) underlines the organization's assets as the critical determinants of competitive advantage and performance. It takes into account two assumptions in researching advantages of performance. First, this model assumes that firms within an industry (or within a strategic group) may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity used to implement firms' strategies are not perfectly mobile across firms (i.e., some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate). As indicated by Barney (1991), a firm resource must, in addition, be valuable, rare, and imperfectly imitable and substitutable in order to be source of a sustained competitive advantage. (Dierickx & Cool, 1989).

### **Technology Acceptance Model**

This theory was propounded by Fishbein and Azjen's (1975). The Technology Acceptance Model (TAM) was designed specifically to explain computer usage behaviour. There are two central determinants in Technology Acceptance Model: Perceived usefulness, which refers to the degree to which a person believes that using a particular system would

enhance his or her job performance; and perceived ease of use, which refers to "the degree to which a person believes that using a particular system would be free of effort. Furthermore, perceived ease of use is hypothesized to influence perceived usefulness. This hypothesis follows from the logic that improvements in ease of use of a system contribute to increased usefulness due to saved effort.

### **Prospect Innovation Theory**

Kahneman and Tversky (1979) stated that managers in profitable companies are likely to be risk averse and therefore are psychologically likely to reject potentially innovative ideas, particularly new product, service, and ideas that offer an opportunity to increase income. However, potentially innovative ideas, which reduce loss are more likely to be implemented. Thus, in an established firm, process efficiency and ideas, which reduce costs, are more attractive to the typical human than a product idea. However, start- ups with a young, not-yet-defined corporate culture would seem more likely to innovate effectively than established companies that are suddenly losing money and need to innovate themselves out of trouble.

The diffusion model was adopted for this study because it is a conceptual paradigm that provides common conceptual ground for technological innovation.

#### **Empirical Review**

Waihenya (2012) conducted a study of the effect of agent banking on Financial Inclusion in Kenya. The objective of the study was to examine the impact of agent banking on financial inclusion. Secondary data was used for this study since it is easily accessible, cheaper and accurate for this case due to the regulations around submissions by Central Bank of Kenya. The study concluded that agency banking has the effect of increased financial inclusion in the country significantly.

Ilo, Ani, and Chioke (2014) conducted a study on impact of technological innovation on delivery of banking services in Nigeria. With the population of interest in this study which was made up of 1912, questionnaires were shared to customers out of which only 1634 questionnaire responded, also 1458 questionnaires were distributed to banks employees for second hypothesis test, only 1223 questionnaires were returned for analysis. The data analysis involved frequency distribution, data collected was analyzed using Pearson Correlation Statistics that were adopted in Statistical Package for Social Science (SPSS). The findings showed that positive relationship exists between technology innovation and banks employee's performance.

Mutevu (2015) studied the effects of technological innovations on financial performance of commercial banks in Kenya, a study of Equity Bank of Kenya. The study used a descriptive research design. The target population included the 240 staffs from the Equity Bank of Kenya in the Nairobi's Central Business District and its environs of the west, east and south as well as in the Head Office. A sample of 20% (48 respondents) was selected using stratified random sampling from within each group in proportions. The study made use of a survey questionnaire which was self-administered through drop and pick later method. Quantitative data collected was analyzed by the use of descriptive statistics using SPSS and presented through percentages, means, standard deviations and frequencies. The study revealed that adoption of technological innovations by banks affected their financial performance; balance enquiry, automatic advices to clients on credits and airtime purchase.

Alex and Anthony (2016) studied the effect of technological innovations on financial inclusion initiatives by banks in Nakuru town, Nakuru country. The study adopted descriptive research design. The target population was commercial banks within Nakuru town. The study used two questionnaires to collect primary data. The study revealed that technological innovations increase sales, they lead to profit increment and enhances the quality of services rendered by the bank.

Hesselbein and Johnston (2002) studied innovation on new consumer attraction among selected banks in New Jersey. His studied focuses on the existing practice of innovation in the banking units. The survey was carried out with different consumer and new products like sedan, suv, etc. The study farther indicated that the new car brands are important so that they increase the attention and increase familiarity with the particular product.

Josiah (2012) conducted a research to find out that the relationship between electronic banking and financial performance among commercial banks in Kenya. He found out that electronic banking have great effect which influence mostly the young generation and their purchasing behavior. The main aim is to identify the purchasing power of consumers. The researcher used pilot survey as research methodology. The research result shows that the consumer thinks that if the shape is attractive then the product will be reliable and have a good performance.

#### **METHODOLOGY**

Survey research design was adopted, as it seeks to determine effects of technological innovations on business organization example United Bank for Africa and First Bank. The study adopted primary data obtained through the use of a well-structured questionnaire and observation from the employees in First Bank and United Bank for Africa, Umuahia in Abia state. The population of study was composed of all the staff employed at United Bank for Africa PLC and First Bank of Nigeria PLC branch in Umuahia, Abia State. The target population include 155 respondents from the United Bank for Africa and First Bank, in Umuahia, Abia State. From the above population of 155 respondents, a proportional sample size determination formular at 95% confidence interval was employed in this study. The researcher adopted a test re-test method in which the researcher distributed 10 copies of the questionnaires to the employees of the organizations understudied. The questionnaire distributed were completed and returned using Spearman rank order correlation coefficient which was found to be high, P = 0.0988 showing the reliability of the instrument. In analysis the data both descriptive and non-descriptive methods of analysis was employed. Simple regression was used to test the hypotheses through the use of SPSS.

## **Test of Hypotheses**

**HO**<sub>1</sub>: Mobile banking has no significant effect on organizational performance of money deposit banks in Umuahia, Abia State. In testing this hypothesis, descriptive statistics and correlation analysis were conducted and presented in tables 1 and 2.

**Table 1: Descriptive Statistics** 

	Mean	Std. Deviation	N
Mobile Banking Platform	3.51	1.197	101
Organizational Performance	3.34	1.219	101

**Table 2: Correlations** 

		Mobile Banking Platform	Organizational Performance
Mobile Banking	Pearson Correlation	1	.860**
Platform	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	143.228	125.495
	Covariance	1.432	1.255
	N	101	101
Organizational	Pearson Correlation	.860**	1
Performance	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	125.495	148.554
	Covariance	1.255	1.486
	N	101	101

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

**HO**<sub>1</sub>: Mobile banking has no significant effect on organizational performance of money deposit banks in Umuahia, Abia State was examined with Pearson Correlation. The correlation coefficient value is 0.860. Considering the statistical significance we observe that the Sig. value of the correlation is 0.000, which is lower than the acceptable 0.005 significance level. Therefore, pending other statistical evidence we reject the null hypothesis and accept the alternate that there is significant relationship between mobile banking platform and organizational effectiveness. The finding of this study implies that mobile banking platform has a positive correlation with performance. The findings of this study conforms to that of Lim, Richardson and Roberts (2004) who suggested that mobile banking platform enhances banks effectiveness and productivity.

**HO<sub>2</sub>:** Internet-use transactions have no significant effect on organizational efficiency of money deposit banks in Umuahia, Abia State. In testing this hypothesis, descriptive statistics and correlation analysis were conducted and presented in tables 3 and 4.

**Table 3: Descriptive Statistics** 

·	Mean	Std. Deviation	N
Internet-Use Transactions	3.66	1.430	101
Organizational Efficiency	4.09	1.394	101

**Table 4: Correlations** 

		Internet-Use	Organizational
		Transactions	Efficiency
Internet-Use Transactions	Pearson Correlation	1	.577**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	204.554	115.030
	Covariance	2.046	1.150
	N	101	101
Organizational Efficiency	Pearson Correlation	.577**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	115.030	194.198
	Covariance	1.150	1.942
	N	101	101

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

**HO<sub>2</sub>:** Internet-use transactions has no significant effect on organizational efficiency of money deposit banks in Umuahia, Abia State was investigated with Pearson Correlation. The correlation coefficient value is 0.577. Considering the statistical significance we observe that the Sig. value of the correlation is 0.000, which is lower than the acceptable 0.005 significance level. Therefore, pending other statistical evidence we reject the null hypothesis and accept the alternate that internet-use transactions has significant effect on organizational effectiveness of selected banks in Umuahia Abia State. The outcome of this study connotes that internet-use transactions promote bank efficiency. The study is consistency with the findings of Mutevu (2015) who asserted that internet-use transactions enhance banks financial performance.

**HO<sub>3</sub>:** Point of sales system has no significant effect on customer satisfaction of money deposit banks in Umuahia, Abia State. In testing this hypothesis, simple regression statistics and ANOVA analysis were conducted and presented in tables 5 and 6. The coefficients of their cumulative results were presented in table 7.

**Table 5: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.777 <sup>a</sup>	.604	.600	.791

a. Predictors: (Constant), POS system monitors sales records and alert when stock is running low

Table 6: ANOVA<sup>a</sup>

Mode	I	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.596	1	94.596	151.151	.000b
	Residual	61.958	99	.626		
	Total	156.554	100			

- a. Dependent Variable: POS enhance Customer Relationship Management
- b. Predictors: (Constant), POS system monitors sales records and alert when stock is running low

Table 7: Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		В	Std. Error	Beta	<del></del>	
1	(Constant)	.998	.206		4.848	.000
	POS system monitors sales records and alert when	.640	.052	.777	12.29 4	.000
	stock is running low					

a. Dependent Variable: POS enhance Customer Relationship Management

The table above shows the regression results point of sales system and customer satisfaction. The regression results showed that the estimated coefficient of the regression parameter have a positive sign and thus conform to our a-priori expectation. The implication of this sign is that point of sales system influences customer satisfaction. The coefficient of determination R-square of 0.604 implied that 60.4% of the sample variation in the dependent point of sales is explained or caused by the explanatory variable while 39.6% is unexplained. This remaining 39.6% could be caused by other factors or variables not built into the model. The high value of R-square is an indication of a very good relationship between the dependent and independent variable. The value of the adjusted R<sup>2</sup> is 0.600. This shows that the regression line which captures 60.0% of the total variation in degree of

relationship between point of sales system and customer satisfaction. The F-statistic was also used to test the overall significant of the model. The F-value of 151.151 is an indication that the model is statistically significant at 5 percent level of significant at degree of freedom df1= 2 and df2= 99.Also, the calculated significance value is lower than 0.05, implying that the relationship is significance. Therefore, based on the analysis we therefore reject the null hypothesis and accept the alternate that there is significant relationship between point of sales system and customer satisfaction. The outcome of the study is in agreement with Ilo, Ani, and Chioke (2014) who attested that POS helps in customer retention and aid customer satisfaction.

**HO<sub>4</sub>:** Technological innovation adoption has no significant effect on profitability of money deposit banks in Umuahia, Abia State. In testing this hypothesis, descriptive statistics and correlation analysis were conducted and presented in tables 8 and 9.

**Table 8: Descriptive Statistics** 

	Mean	Std. Deviation	N
Technological Innovation Adoption	3.6436	1.44627	101
Organizational Profitability	3.9505	1.29133	101

**Table 9: Correlations** 

		Technological Innovation Adoption	Organizational Profitability
Technological Innovation	Pearson Correlation	1	.788**
Adoption	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	209.168	147.218
	Covariance	2.092	1.472
	N	101	101
Organizational	Pearson Correlation	.788**	1
Profitability	Sig. (2-tailed)	.002	
	Sum of Squares and Cross-products	147.218	166.752
	Covariance	1.472	1.668
	N	101	101

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

Technological innovation adoption has no significant effect on profitability of money deposit banks in Umuahia, Abia State was investigated with Pearson Correlation. The correlation coefficient value is 0.778. Considering the statistical significance we observe that the Sig. value of the correlation is 0.002, which is lower than the acceptable 0.005 significance level. Therefore, pending other statistical evidence we reject the null hypothesis and accept the alternate that there is significant relationship between technological innovation adoption and Organizational profitability. This study is in line with Alex and Anthony (2016) who submitted that technological adoption increases sales, leads to profit increment; increases quality of service and assure the survival of the bank.

#### **DISCUSSION OF RESULTS**

The study submitted that mobile banking platform enhances the performance of selected banks in Umuahia which leads to customer satisfaction, promote bank effectiveness, boost bank profitability and provides the customer with more ways to access their account.

The study also attested that internet-use transactions affect organizational efficiency by providing super-fast services to customers, enables customers to pay their bills online, providing the customers easy access to their financial records anytime, helping customers to monitor transaction history and by granting customers easy access to routine banking activity such as deposits and cleared checks.

The study also reported that point of sales system affect customer satisfaction by enhancing customer relationship management. POS encourages cashless society, enhances customer services by improving financial accuracy and transactional efficiency and helps to track customer records.

The study also showed that technological innovation adoption affect profitability by improving product quality, enhancing total quality management and boosting product/service delivery time. The study also attested that technological innovation adoption reduces waste and enhances organizational efficiency.

#### **SUMMARY OF FINDINGS**

The key findings of the study are listed below.

- i. Mobile banking has significant effect on organizational performance of money deposit banks in Umuahia, Abia State.
- ii. Internet-use transactions have significant effect on organizational efficiency of money deposit banks in Umuahia, Abia State.
- iii. Point of sales system has significant effect on customer satisfaction of money deposit banks in Umuahia, Abia State.
- iv. Technological innovation adoption has significant effect on profitability of money deposit banks in Umuahia, Abia State.

#### **CONCLUSIONS**

The study anchored on the impact of technology management on organizational efficiency of selected money deposit banks in Umuahia, Abia state. That mobile banking has significant effect on organizational performance of money deposit banks in Umuahia, Abia State. Internet-use transactions affect organizational efficiency of money deposit banks in Umuahia, Abia State. Point of sales system affects on customer satisfaction of money deposit banks in Umuahia, Abia State. Technological innovation adoption has significantly affected on profitability of money deposit banks in Umuahia, Abia State.

#### RECOMMENDATIONS

The key following recommendations were made after the study.

Mobile banking has significant effect on organizational performance of money deposit banks in Umuahia, Abia State.

- 1. Banks should encourage internet-use transactions because it will have positive effect on organizational efficiency of money deposit banks in Umuahia, Abia State.
- 2. Point of sales system should also be effectively and adequately managed on customer satisfaction of money deposit banks in Umuahia, Abia State.
- 3. Technological innovation adoption should be encouraged among the customers of the selected so that this will boost their profitability of money deposit banks in Umuahia, Abia State.

#### REFERENCES

- Abernathy, W. J. and Utterback, J. M. (2005). *Innovation and the Evolution of Technology in the Firm*, Harvard University Press, Cambridge, MA.
- Adeyeyetolulope, C. (2014). The impact of technological innovation on organizational performance. *Industrial Engineering Letters*, 4(3), 97 101.
- Agboola, A. (2006). Information and communication technology (ICT) in banking operations in Nigeria: an evaluation of recent experiences, pp 1 -5, Retrieved from http://unpan1.un.org/intradoc/groups/public/documents/AAPAM/UNPAN026533.pdf, on July. 2014.
- Agboola, A. A. (2003). Inform Technology, Bank Automation and Attitude of Workers in Nigerian Banks in Journal of Social Sciences, Kamla-Raj Enterprises, Gali Bari Paharwali, India, 2003.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Alex, M. T. and Anthony, W. N. (2016). Effect of technological innovations on financial inclusion initiatives by banks in Nakuru town, Nakurucounty. International *Journal of Economics, Commerce and Management*, **4**(10), 922 936.
- Arthur, W. B. (2009). The nature of technology: what it is and how it evolves. New York: Free Press.
- Ayres, R. U. (2008). Technology: the Wealth of Nations. *Technological Forecasting and Social Change*, **33**(2), 189-201.
- Bhuian, M. (1997). Evaluating IS Usage in Saudi Arabian Small and Medium-Sized Firms Using the Technology Acceptance Model. *Logistics Information Management*, **16**(6), 440 450.
- Bougrain, F. and Handeville, B. (2002) Innovation, collaboration and S.M.E. *Internal Research Capacities, Research Policy*, **31**, 735-745.

- Bresenahan, F., Hair, F. and Berger, A. (2003). The economic effects of technological progress: Evidence from the banking industry. *Journal of Money Credit Bank*, **35**(2), 141-176.
- Coelho, F. and Easingwood, C. (2003). Multiple channel structures in financial services: a framework. *Journal of Financial Services Marketing*, **8**(1), 22-34.
- Cooper, D. R. and Schindler, P. S. (2003). *Business Research Methods* (8th edn), McGraw-Hill: New York
- Daniels, E (2002). The dynamic of product innovation and firm competences. *Strategic Management Journal*, **23**, 1095-1125.
- Donner, J. (2007). *M-banking and m-payments services in the developing world: New channel, same ties?* Paper presented at the panel on living and livelihoods at HOIT2007: Home/community oriented ICT for the next billion, IIT Madras, Chennai, India.
- Forman, C. (2005). The corporate digital divide: determinants of internet adoption. *Management Science*, **51**(4), 641-654.
- Galende, J. and Fuente, J. M. (2003). Internal factors determining a firm's innovative behaviour. *Research Policy*, **32**, 715-736.
- Gilaninia, S. (2011). The impact of information technology application on supply chain performance. *Interdisciplinary Journal of Contemporary Research in Business*, **3**(8), 489-496.
- Hamel, G. (2002). Leading the Revolution. New York: Plume (Penguin Books).
- Hart, D. N. and Gregor, S. D. (2007). Information systems foundations theory, representation and reality, ANU E Press
- Hawkins, J. (2001). The Banking industry in the emerging market economies: competition, consolidation and systemic stability: An overview. *BISPapers*, **4**, 1 44.
- Hesselbein, F. and Johnston, R. (2002). On creativity, innovation and renewal: A leader to leader guide. Hoboken, NJ: Jossey-Bass Publishing.
- Hill, C. T. and Utterback, J. M. (2009). *Technological Innovation for a Dynamic Economy*, Pergamon Press, London.
- Ibikunle, F. and James, O. (2012). Impact of information technology on Nigeria banking industry: a case study of Skye bank, Covenant University, Ota, Nigeria *International Journal of Computing Academic Research (IJCAR)*, **1**(1), 25-35.
- Ilo, J. V. C., Ani, W. U. and Chioke, N. S. (2014). Impact of technological innovation on delivery of banking services in Nigeria. *International Conference on Economics, Education and Humanities (ICEEH)*, pp 162 169.

- Ivatury, M. (2008). Mobile phone banking and low income consumers: Evidence from South Africa, CGAP, UN Foundation, Vodafone Group Foundation, available at: www.cgap.org/publications.
- Jabnoun, N. and Al-Tamimi, H. (2003). Measuring Perceived Service Quality at UAE Commercial Banks. *International Journal of Quality and Reliability Management*, **20**(4), 458-172.
- Jasimuddin, S. (2004). Saudi Arabia Banks on the Web. Retrieved 15 February 2012, from www.arraydev.com/commerce/jibc/0103-02.htm.
- Josiah, A. Nancy, K. (2012). The relationship between electronic banking and financial performance among commercial banks in Kenya. *Journal of Finance and Investment Analysis*, **1**(3), 99-103.
- Kazmi, A. (2008). Strategic Management and Business Policy. Delhi, Tata McGraw-Hill.
- Kelley, M. R. and Brooks, H. (2008). *The state of computerized Automation in US Manufacturing*. Center for Business and Government, Harvard University press, Cambridge, M A
- Kim, W. C. and Mauborgue, R. (1999). Strategy, value innovation and the knowledge economy. *Sloan Management Review*, **40**(3), 41-54.
- Lia, O. Z. (2001). Technology innovation concepts, strategies, and research methods. Yunnan materials.
- Lim, J., Richardson, V. and Roberts, T. (2004). *Information Technology Investment and Firm Performance: A Meta-Analysis.* Paper presented at the 37th Hawaii International Conference on System Sciences, Hawaii.
- Mugenda, A. and Mugenda, O. (1999). *Research Methods:* Qualitative and Quantitative Approaches. Nairobi: Acts Press.
- Mugenda, O. M. and Mugenda, A. G (2003). *Research Methods: Quantitative and Qualitative approaches*. Nairobi, Acts Press.
- Mutevu, R. B. (2015). Effects of technological innovations on financial performance of commercial banks in Kenya: a case of equity bank of Kenya. *The Strategic Journal of Business and Change Management*, **2**(5), 72 93.
- Ngechu, M. (2004), *Understanding the research process and methods*. An introduction to research methods. Acts Press, Nairobi.
- Ojokuku, R. M. and Sajuyigbe, A. S. (2012). The Impact of Electronic Banking on Human Resources Performance in the Nigerian Banking industry. *International Journal of Economic Development Research and Investment*, **3**(2), 61-69.
- Oluwagbemi, O., Abah, J. and Achimugu, P. (2011). The impact of information technology in Nigeria's banking industry. *Journal of Computer Science and Engineering*, **7**(2), 63 67.

- Organization for Economic Co-Operation and Development OCED (2005). Oslo Manual, Guidelines For Collecting And Interpreting Innovation Data. A joint publication of OECD and Eurostat. 3rd addition.
- Ovia, J. (2001). Internet banking: practices and potentials in Nigeria. A paper presented at a seminar organized by the Institute of Chartered Accountants of Nigeria (ICAN) Lagos Sheraton Hotel & Towers. Ikeja. September 05.
- Prhanlad, C. K. and Hand, G. (1990). The core competencies of Corporation Business Review.
- Rogers, E. M. (1962). Diffusion of innovations. 1<sup>st</sup> edition, New York: Free Press of Glencoe.
- Rogers, E.M. (1995). Diffusion of Innovations, 4th ed., The Free Press, New York, NY.
- Stamoulis, D. (1986). How Banks Fit in an Internet Commerce Business Activities Model. Journal of Internet Banking and Commerce, **5**, 1.
- Tan, M. and Teo, T. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Association for Information Systems*, **1**(5): 1-42.
- Thornton, J. and White, L. (2001). Customer Orientation and Usage of Financial Distribution Channels. *Journal of Services Marketing*, **15**(3), 168-185.
- Ugwu, L. O., Oyebisi, T. O., Ilori, M. O. and Adagunodo, E. R. (2000). Organizational impact of information technology on banking and insurance sector in Nigeria. *Technovation*, **20**, 12.
- Wacker, J. G. (1998). A definition of theory: research guidelines for different theory-building research methods in operations management. *Journal of Operations Management* **16**, 61–385.
- Waihenya, H. (2012). The effect of Agent Banking on Financial Inclusion in Kenya, an unpublished MBA dissertation. UON.
- Wambugu, J. K. (2011). Factors influencing the adoption of agency banking by Commercial banks in Kenya. Unpublished MBA project, University of Nairobi.
- Wang, Y., Wang, Y., Lin, H. and Tang, T. (2003). Determinants of User Acceptance of Internet Banking: An Empirical Study. *International Journal of Service Industry Management*, **14**(5), 501-519.
- Yan, C. M., Guan, J. C., Pun, K. F. and Tan, P. Y. (2004). An audit of technological innovation capabilities in Chinese firms: some empirical findings in Beijing China, *Research Policy*, **33**(8), 1123-1250.