SUNTEXT REVIEWS

SunText Review of Economics & Business
ISSN: 2766-4775

Open Access
Research Article
Volume 3:3

E-Banking Service Quality, Internal Control System and Organisational Performance of Selected Deposit Money Banks in Nigeria

Oyedokun GE* and Oyetunji AR

Department of Management & Accounting, Lead City University, Ibadan, Nigeria

***Corresponding author:** Oyedokun GE, Department of Management & Accounting, Lead City University, Ibadan, Nigeria; E-mail: godwin.oyedokun@lcu.edu.ng ; godwinoye@yahoo.com

Received date: 04 September 2022; **Accepted date:** 08 September 2022; **Published date:** 13 September 2022

Citation: Oyedokun GE, Oyetunji AR (2022). E-Banking Service Quality, Internal Control System and Organisational Performance of Selected Deposit Money Banks in Nigeria. SunText Rev Econ Bus 3(3): 168.

DOI: https://doi.org/10.51737/2766-4775.2022.068

Abstract

This study examines the effect of electronic banking service quality and internal control systems on the performance of selected deposit money banks in Nigeria. The study adopts a survey design. A validated questionnaire was used to collect data, 460 copies of the questionnaire were administered to bank customers. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.72 to 0.91. The study employed descriptive statistics as well as inferential statistics. Multiple regression analysis was used to test the hypotheses formulated. The result shows that E-banking service quality and internal control system has a significant effect on the organizational performance of DMBs in Nigeria. This study concluded that there was a statistically significant effect of E-banking service quality (E-banking service efficiency, safety, and transaction support) and internal control system (control environment, control activities, and risk assessment) on each of the measures of organizational performance which include customer satisfaction, operational efficiency. Hence, the study recommended that management effort is required to continue to give assurance to bank customers that E-banking platforms are safe, also the management of DMBs in Nigeria should continue to adopt up-to-date control systems using innovative technology and as much, as improve their control environment to ensure operational efficiency.

Keywords: Deposit money banks; Electronic banking service; internal control system; Organisational performance

Introduction

The banking sector plays a vital role in the economy of many nations, and this is because banks serve as financial intermediaries connecting the surplus and deficit economic agents, thereby driving economic growth. Hence, it is important that as the world is experiencing a significant level of disruptions to business operation occasioned by the coronavirus pandemic, US-China trade wars, and Russia-Ukraine war, banks must find innovative means to meet customer expectations in service to guaranty operating as a going-concern organization. The global banking sector outlook suggests that US banks, compared to their European, Asia-Pacific, South America, and the Middle East and Africa (MEA) counterparts, are ahead on multiple measures. Aggressive governmental interventions and stringent regulations aided in bringing US banks back into balance more swiftly (Mon & Mon, 2019). More recently, positive GDP growth, tax cuts, and higher interest rates have improved the industry's position. Total assets in the United States reached a peak of $17.5 trillion. Capital levels are up as well, with the average tier 1 capital ratio standing at 13.14 percent. Return on equity (ROE) for the industry is at a post-crisis high of 11.83 percent. Efficiency ratios are also at their optimum. Similarly, the US banking system is strong in terms of nonperforming loans and the number of failing institutions [1]. In Nigeria the ripple effect of the pandemic, rising security challenges and separationist movement across the country, and Federal government policy inconsistencies have created tougher times for many Nigerian businesses including banks and this has negatively affected the performance of the banking sector in the country. In addition, the proshare economy report stressed that Deposit money banks (DMBs) continue to grapple with significant Non-Performing Loans (NPLs), regulatory hurdles, and an unstable economic environment [2]. Also, the ripple effect of bank employees getting involved in

insider-related fraud activities could be responsible for overall bank efficiency. These issues raised have been attributed to the inability of the bank operators to conduct comprehensive risk management for loan applications, engaging in unethical practices which cloud due process in the administration of banking financial activities in the loan application [3]. To address these issues in Nigeria's banking sector for the better, both the industry regulator and banking experts suggested that the bank's internal control mechanisms can be used as a frame to address the challenges. This is because internal control ensures compliance with the code of best practices. More so, internal control mechanisms ensure the comprehensive risk assessment of financial activities and operational compliance following ethical practice, while ensuring the delivery of sound banking services that maximize shareholders' wealth. In addition, KPMG in a survey on customer experience opined that all the DMBs in Nigeria had not met all the six thresholds (personalization, integrity, expectation, time & effort, resolution, and empathy) for measuring excellent customer experience at the desired level [4]. This means bank customers are merely getting by, given the lack of credible alternatives to keep their funds safe. Changing times need banks to take significant steps to modernize, capitalize on changing technologies, keep ahead of new competitors, and satisfy client demands. To achieve this, banks must develop and implement agile electronic banking mechanisms. This will address the many customer dissatisfying experiences with long frustrating queues at the banks. It is important to stress that the sector is battling problems ranging from inefficient service delivery, people's distrust for the banking sector, and rising bad loans. It is against this backdrop of events that this study evaluated the effect of electronic banking service quality and internal control systems on the performance of selected deposit money banks in Nigeria. This study examines the effect of electronic banking service quality and internal control systems on the performance of selected deposit money banks in Nigeria. The specific objectives are to:

1. Examine the effect of E-banking service quality on customer satisfaction of selected DMBs in Nigeria
2. Determine the effect of the internal control system on the operational efficiency of selected DMBs in Nigeria
3. Evaluate the effect of E-banking service quality and internal control system on the performance of selected DMBs in Nigeria

Literature Review

Organization performance

Organizational performance can thus be defined as the measure of the outcome compared to the target or inputs within an organization for it to reach its goals (Mon & Mon, 2019). This suggests that organizational performance is a complete view of a company within a certain period regarding the results of its company's operational activities. Organizational performance is a broad term referring to an assessment of the overall success or failure of the organization. It can also be defined as how an organization successfully transforms its inbound logistics into meaningful outputs to accomplish a specific result [5]. However, it could also be defined as the capability of a firm to produce desirable outcomes. Another scholar stated that organizational performance is a measure of financial capability in terms of profit level, sales turnover growth, and the investment value of an organization [6]. Business performance can be defined and measured in many different ways, and it is a multi-dimensional concept [7]. Organizational performance is defined as the extent to which the organization can meet the needs of its stakeholders and its own needs for success and survival. As a result, while meeting a description of performance may result in a high market share, a specific profit margin, or having the greatest products, these factors are not appropriately equated with performance. Organizational performance is influenced by many elements that are combined in unique ways to both enhance and detract from performance. Organizational performance can also be defined from the angle of customer results, people result, operational results, and growth results. Organizational performance compares the expected results with the actual ones, investigates deviations from plans, evaluates individual performance, and examines the progress made towards meeting the targeted objectives.

Customer satisfaction

Customer Satisfaction is the emotional and psychological result of individual customer experiences. In the same vein, Customer Satisfaction is considered as the resultant effect of evaluating the cost-benefit derived from buying and consuming a firm's product. Customer satisfaction is the customer's fulfilment response. It is a judgment that a product or service feature provides a pleasurable level of consumption related to fulfilment, including elements of under or fulfilment. In another way, customer satisfaction refers to the extent to which customers/clients are happy with the products or services provided by a business or an organization [8]. Customer satisfaction refers to the customer's general intention and perception based on their consumption or user experience of a product or service. It examines if the product or service performance matched the customer's expectations and assesses whether the product or service performance met the customer's expectations. If the product or service does not meet the customer's needs or desires, the customer will be unsatisfied; nevertheless, if the service performance meets the customer's expectations, the customer will be happy and satisfied. Customer satisfaction is defined as a response (cognitive or affective) to a specific topic (a purchase experience and or associated product)

that occurs at a specific time (post-purchase, post-consumption). Customer satisfaction is the total utility derived from the post usage of products and services. Customer satisfaction is proxy by service quality: reliability—responsiveness, tangibility, assurance, and empathy. Customer Satisfaction is viewed as an emotional response, which results from a cognitive process of evaluating the service received against the costs of obtaining the service.

Operational efficiency

Operational efficiency is to do with achieving maximum satisfaction with minimum or no cost [9]. On the other hand, operational efficiency refers to the capability of an organization to deliver products or services to its customers in the most cost-effective manner possible while still ensuring the high quality of its products, service, and support. Operational efficiency occurs when appropriate and suitable people, processes, and technology are combined to deliver products or services to its customers by organizing the core processes in response to the changes in market forces. It is a valuable measure utilized in managing the available resources [10]. Operational efficiency is the ability of a service sector to deliver goods or services to its users in the most cost-effective manner possible while still ensuring the high quality of its products, service, and support [11]. Efficiency is obtaining the maximum possible performance for any given expenditure of resources. In addition, efficiency had been categorized into economic efficiency, production efficiency, technical efficiency, and operational efficiency. Primarily, organizational efficiency is determined by various factors, one of which is human resource capability. There are several types of efficiency: technical efficiency, dynamic efficiency, allocative and productive efficiency, and social efficiency [12]. One benefit of firm efficiency is that economic value and social welfare are created whenever a firm produces a set of outputs valued by customers at a rate more than the value of the inputs consumed to produce the outputs [13]. Operational efficiency enhances the continuous improvement of the business and its products on offerings; increases efficiency and profit through enhanced innovative activities and higher productivity at reduced costs; increases product/service quality through innovation; and culture shift to one of continuous improvement which gives the firm a distinct advantage in the competitive marketplace. Operational efficiency plays a vital role in improving organizations' current and future performance regardless of the industry and sector within which the organization operates [14]. The economic cost incurs due to operational inefficiency is a cause of concern for an organization that lacks operational efficiency.

E-Banking Service Quality

First conceived and developed in Finland, E-Banking, or the distribution of financial services via electronic systems, has spread among customers due to rapid improvement in IT and through competition between banks [15]. E-Banking services are a variety of e-channels for making bank transactions through the Internet, TV, mobile, telephone, and computer. Banking customers' service demands and expectations are growing as technology progresses and improves. Nowadays, the client wants to be able to operate and conduct banking transactions from any location without having to go to the bank, at any time without being restricted to the bank's working hours, and to do all payments (buying, bills, stocks) in a timely and cost-effective manner. To fulfil these objectives, financial service quality should be defined by independence, elasticity, freedom, and adaptability [16]. E-banking in Lebanon is currently limited mainly to the Internet and mobile phones. This is owing, in part, to the country's delayed development of IT infrastructure. Keeping this in mind, we define it as the ability to conduct banking and financial activities electronically via the Internet or mobile telephone applications. The concept of e-banking is a delivery channel for banking services. Banks have electronic channels to communicate and transact business with both international and domestic corporate customers. With the development of the Internet, banks are increasingly using electronic channels to receive instructions and deliver their products and services to their customers. Although the variety of products and services provided by banks via the electronic channel varies greatly in content, capability, and sophistication, this type of banking is commonly referred to as e-banking or Internet banking. The automated distribution of new and classic banking products and services directly to customers via electronic, interactive communication channels is referred to as e-banking. The definition of e-banking varies according to study, in part because electronic banking refers to a variety of services that allow bank clients to seek information and perform most retail banking transactions through a computer, television, or mobile phone [17]. E-banking is defined as an electronic connection between a bank and a customer to prepare, manage, and control financial transactions. Electronic banking can also refer to the following platforms: Internet banking (or online banking), telephone banking, television-based banking, mobile phone banking, and e-banking are all forms of banking (or offline banking). E-banking refers to the systems that allow users of financial institutions, whether people or corporations, to access accounts, acquire information on financial products, and transact business, or services over a private or public network, such as the internet on a computer or mobile phone. Customers use an intelligent electronic device, such as an Automated Teller Machine (ATM),

Personal Computer (PC), Personal Digital Assistant (PDA), kiosk, or telephone, to access e-banking services [18]. While some sources confine the phrase to internet banking, others limit it to retail banking or both retail and corporate banking [19]. E-banking is defined as the delivery of retail and low-value banking products and services via electronic channels. Deposits, lending, financial advice, electronic bill payment, account management, and the provision of other electronic payment products and services are examples of such products and services [20]. Banks can provide financial services via a variety of electronic distribution channel technologies, including Internet technology, telephone banking technology, video banking technology, and WAP technology. They also indicated that Internet technology is the main electronic distribution channel in the banking industry. In other terms, e-banking is an online banking service that includes accessing accounts, transferring funds across accounts, and providing an online financial service [21]. In the 1990s e-banking was under-utilized as business organizations used it only to market their products and services [22]. Electronic banking is a cutting-edge platform that allows financial institutions and clients to access their records, move payments, and obtain the most up-to-date information about their monetary goods via public or private systems, such as the internet. Internet banking controls sales, deals, and access to services without requiring the client to be on the bank premises. Among other advantages, e-banking saves time, eliminates the need for clients to visit a bank office, and allows banks to expand their customer base, resulting in increased earnings [23].

Internal Control System

The internal control system is enshrined in the concept of Risk management; because it involves discovering risks, assessing their effects, selecting a series of processes, and evaluating the results. Risk management is the determination, classification, and prioritization of risks followed by the unified and efficient utilization of resources to lessen, monitor, and manipulate the quantity and/or effect of disastrous events [24]. Risks can arise from uncertainness in business markets, projection flops, statutory liabilities, credit risk, accidents, physical causes and disasters as well as wilful attacks from an antagonist. Risk is broad, complex, and frequently interconnected, necessitating management rather than panic. Risk can be avoided as well as managed [25]. Risk management helps to assure that an organization identifies and understands the risks to which it is unprotected. Furthermore, risk management can be implemented through sourcing, stockpiling, insurance, supplement creation, contractual obligations, collaborative activities, and careful supplier selection. Operational risk, decision risk, supplier base erosion, Globalization, acquisition mergers and alliances, inertia, and just-in-time relationship hazards are examples of risks. Assessing risks is an ongoing process thus risk management involves risk identification, risk estimation, risk analysis/assessment, risk evaluation, risk reporting and communication, and then risk monitoring /control and review [26]. The risk of loss caused by inadequate or failing internal systems or external events is defined as operational risk. This operational risk refers to as operational expenses that reduce the profitability of banks. Liquidity risk occurs when the probability of a bank lacking cash when needed for operational activities and settling the credit request of customers is evident [27]. The inability to obtain funds on time may result in customer loss and lower earnings. When consumers fail to pay their loans, the bank suffers losses, which might eventually deplete its capital [28]. Risk identification, estimation, analysis, evaluation, and control are all part of risk management. Determine the effect and profitability of potential supply chain risks by understanding the nature of the risk. When the risk analysis process is completed, the estimated risk must be compared to the risk criteria defined by the organization to have a corrective mechanism in place to improve the firm's profitability levels [29]. Inherent risk management is its advantages. Risk management addresses the risks attached to their activities to achieve sustained benefits within each activity and across the portfolio of all activities [30]. It also serves as a defensive mechanism. In addition, risk introduces the thought of the probability of how an unpleasant situation can be minimized. Efficient risk management seeks to increase the benefits related to a venture commonly a reduction in the period or outlay while decreasing the risk itself. In addition, effective risk assessment allows the organizations to better understand their risk profile and most effectively target risk management resources that will help the banking firms avoid or reduce risks hence improving their performance.

Theoretical Review

The theoretical background for this study is the Knowledge-Based Theory. The knowledge-based theory originated from the literature on strategic management. It is an extension of the resource-based view theory which was developed by Penrose (1959) and expanded by Wernerfelt (1984,) Barney (1991), Conner (1991) [31, 32]. The knowledge-based theory of the company regards knowledge as a firm's most strategically crucial resource. Knowledge base theory assumes that firms use knowledge to produce goods and services that knowledge is the most strategically important of a firm's resources, that knowledge is created and held by individuals rather than organizations, and that firms exist because market forces are incapable of coordinating the knowledge of individual specialists. This is the role of management within a corporation. Furthermore, the following assumptions are made in this theory: Firms employ knowledge to produce goods and services; knowledge is the most

strategically essential of a firm's resources; knowledge is developed and kept by individuals, not organizations; firms exist because markets are incapable of combining the knowledge of individual specialists. This is the role of the management within a firm; Knowledge-based resources are characterized by difficulty of imitation and social complexities; Knowledge draws strategic significance from its appreciative value as opposed to other traditional factors of production, which depreciate. The critics of the knowledge-based theory believe that knowledge is not enough for a firm to achieve or gain a competitive advantage over its rivals. To the critics, other factors could aid an organization to gain a competitive advantage over its rivals [33]. Its proponents say that because knowledge-based resources are typically difficult to mimic and socially complex, organizations' varied knowledge bases and capacities are the primary determinants of sustained competitive advantage and better corporate performance [34]. This theory is also backed by the fact that knowledge is embedded and transmitted through various entities such as corporate culture and identity, policies, routines, documents, systems, and personnel. This perspective, which comes from the strategic management literature, builds on and expands on the resource-based view of the firm (RBV). Knowledge is a key intangible resource that is the primary source of a sustainable competitive advantage [35]. The firm's role is not only to acquire a variety of resources and talents but to develop organizational knowledge to produce a lasting competitive advantage. The knowledge-based theory is founded on the notion that superior access to and integration of specialized information results in resource and capability-based advantages [36]. Individuals produce and hold knowledge, but it can become embedded inside an organization as organizational processes and routines are repeated [37]. Firms can thus be considered as knowledge bundles, with knowledge serving as a source of differentiation and competitive advantage. Creation and transfer are two essential knowledge activities in organizations connected with knowledge bundling [38]. The knowledge-based theory states that the capabilities of an organization's knowledge are the only resource that may help in gaining and maintaining a competitive advantage, and, therefore organizations must put focus on building their knowledge capabilities in terms of sensing capability, seizing capability, reconfiguration capability, network capability, and innovation capability. Organizations need to integrate and provide a system and structural arrangements for coordination and cooperation among its capability.

Empirical Review

Examined the effect of E-banking on the performance of deposit money banks in Nigeria, through the use of eight selected deposit money banks categorized with international authorization in Nigeria [39]. This study adopted an ex-post facto research design because data were collected from secondary sources through annual reports and the statistical bulletin of the Central Bank of Nigeria over the period 2011 to 2020. Mobile banking, online banking, automated teller machines, and point of sale were used to assess e-banking, while Return on Assets (ROA) was used to assess bank performance. The study applied ordinary least squares (OLS) in its analysis to determine the effect of E-Banking on the performance of deposit money banks in Nigeria. The study's findings revealed that mobile banking (MB) and point of sale (POS) had a substantial impact on the performance of Nigerian deposit money banks while online banking (OB) and automated teller machine (ATM) did not have a significant influence on the performance of deposit money banks in Nigeria. Some of the recommendations are that deposit money bank management should deliver service excellence and increase service quality. Governments at all levels should create an enabling environment and social infrastructures, such as reliable power supply, high-quality telecommunications, and affordable and reliable internet access. Examine the connection between Electronic Banking service quality and customer satisfaction [40]. The study used a survey research approach. 344 participants were selected randomly for the study. The data acquired from the sampled 302 respondents indicates that the qualitative characteristics of E-banking services (innovation, technological competence, reliability, and tangibility) all influence consumer satisfaction. Furthermore, consumer satisfaction was positively influenced by innovation, technological competence, dependability, and tangibility. All four hypotheses were supported. As a result, we conclude that deposit money institutions must improve their E-banking service to boost consumer happiness. Investigated customers' perceptions regarding e-banking in the Maldives. It covers customers' perceptions of online banking activities, their impact, and promotional measures used by banks to promote online banking in the study area [41]. The customers' choice of banks is influenced by the quality of e-banking services. The questionnaire was used to gather data from 106 respondents. According to the findings, 87.5% of respondents believe that e-banking saves time. The investigation found that the perception of e-banking services supplied by banks is satisfied to some extent regarding different income groups of respondents. The study discovered that gender, education, and tourism income all play a significant effect in the use of online banking in the studied area. The study supported the conceptual framework by indicating that if consumers' abilities can be improved, they will utilize online banking more frequently. Banks can provide financial services to customers via the internet at a far cheaper cost than traditional banking in the Maldives. Studied the effect of internal control on the performance of commercial banks in Nigeria [42]. The purpose of the research is to determine the impact of internal control systems

on the performance of Nigerian commercial banks. The survey method was used, and the study used stratified random sampling, with 382 questionnaires distributed to workers from the operations, marketing, and security departments of Nigerian commercial banks. The questionnaire is a 5-point Likert scale while the data collected was analysed using Statistical Package for the Social Sciences (SPSS) version 23 (v23) and Smart PLS 3. The findings of the study revealed that there is a positive and significant relationship between the four components of internal control (control environment, control activities, monitoring, and risk assessment) and bank performance. While it was discovered that knowledge and communication had a negligible beneficial association with bank performance. The study suggested that future research should include other characteristics such as risk culture and corporate governance. Future researchers can also investigate control variables such as bank size, bank age, and so on assessed the issues and challenges of e-banking in Nigeria [43]. The objective was to explore the impact of e-banking on workers and job security in the Nigerian banking industry, to investigate the relationship between e-banking and the quality-of-service delivery of commercial banks in Nigeria, to assess the relationship between e-banking and financial transaction security, and to determine whether e-banking influences customer satisfaction in the Nigerian banking industry. Using convenience random sampling techniques, a sample of 300 respondents was chosen from three selected bank branches in Benin, Nigeria. The study collects primary data through the use of questionnaires as the research tool. The study findings show that employees' job security has a positive relationship with E-banking and has a significant influence on E-banking in Nigeria; customer satisfaction has a positive relationship with E-banking and also influences E-banking penetration in Nigeria; security of financial transactions has a positive relationship with E-banking but has an inverse significant impact on E-banking, and services delivery has a positive relationship with E-banking but has an inverse significant impact on E-banking. The study recommends that for effective e-banking penetration, investors' education and marketing of e-banking products be the key strategies banks should use to attract more customers to embrace e-banking and increase security for e-banking products, reduction of charges on e-banking products, and increase the number of ATM outlets in Nigeria as part of measures to improve quality service delivery and promotion of e-banking as this would exacerbate the recent demand for financial inclusion as part of the Central Bank of Nigeria's monetary policy. Assessed electronic banking services are provided by virtually all the deposit money banks within Yenagoa metropolis in Nigeria, to decongest the banking hall and provide convenient and satisfactory services to customers [44]. The study examined the effect of e-banking service quality on customer satisfaction in Yenagoa. Survey data was collected from 186 DMB customers (respondents) in the research area. The data were analysed using both correlation and regression methods. Customers were reasonably satisfied with the quality of e-banking services (accessibility, convenience, speed, and security), but dissatisfied with the fees/charges in comparison to the level of services given by banks. According to the findings, accessibility, convenience, quickness, and security all have a considerable beneficial impact on customer satisfaction. Fees/charges, on the other hand, have a large inverse association with customer satisfaction. It is consequently proposed, among other things, that DMBs cut their fees/charges on e-banking services, as this will increase patronage of the e-banking services. This, in turn, will result in less congestion in banking halls and higher customer satisfaction [45].

Methodology

The study adopted survey research design as it studied a subset of a population at a point in time and determine the effect of e-banking service quality and internal control system on the organizational performance of DMBs in Nigeria. The universal population for this study comprises 111.54m bank customers. However, the target population of bank customers in Lagos State is unknown. Given the target population is unknown (infinite), this study adopts the Cronchan formula determining sample size from an infinite population and it is stated

$$n_0 = \frac{z^2 \times p(1-p)}{e^2}$$

Where,

n_0 - Sample size, which was estimated

Z^2 - The selected critical value of the desired level of confidence or risk

p - The estimated proportion of an attribute that is present in the population or maximum variability of the population

e - Desired level of precision or margin of error

The following values can be used for estimating the sample size-

n_0 - ?

Z^2 - 95% confidence level (The value of (1-□) in the Standard Normal Distribution z-table, which is 1.96 for 95%)

p - 50% variability of the population (which is maximum)

e - 5% margin of error

Put the value in the given formula-

$$\boldsymbol{n_0} = \frac{(\mathbf{1.96})^2 \times \mathbf{0.5}(\mathbf{1}-\mathbf{0.5})}{(\mathbf{0.05})^2} = 384.16$$

Hence, the sample size for bank customers is 384. To enhance the response rate due to anticipated non-response, 20% of the sample

size amounting to 76 will be added to the calculated sample. Scholars have employed this procedure to aid their response rate2. Therefore, the accessible DMB customers in Lagos State sampled was 460. Hence, 460 copies of the questionnaire were administered to them accordingly. Purposive sampling was employed to select the bank's customers in Lagos State. The primary data was collected using a structured questionnaire for the study. A pilot study was conducted using bank customers in Ibadan because they share similar attributes with bank customers in Lagos State. A sample of 46 representing 10% of the sample size was used for the study. Data were analysed using descriptive statistics and inferential statistics. Multiple regression analysis will be used to test the hypotheses formulated.

Model:

Y = f (XW)

Y = Dependent variable: Organisational performance (OP)

Y = Independent variables: X= E-banking service quality (EBSQ)

W= Internal Control System (ICS)

The first independent variable- E-banking service quality (EBSQ) is measured as:

X1 = E-banking service effectiveness (EBSE),

X2 = E-banking service Safety (EBSS),

X3 = E-banking service Support (EBST)

The second independent variable- The internal control system (ICS) is measured as:

w1 = control activities (CA),

w2 = Risk Assessment (RA),

w3 = Control Environment (CE)

The dependent variable- Organisational performance (OP) Y is measured as:

y1= Customer Satisfaction (CS),

y2= Operational Efficiency (OE)

The following acronyms are compiled to represent the dependent, and independent variables under investigation in the present study. They are as follows;

OP= (CS, OE)

EBSQ = (EBSE, EBSS, EBST)

ICS = (CA, MT, EN)

Data Analysis and Presentation

Descriptive Analysis Results

Profile of gender indicated that 196 respondents representing 49.7% were male while 197 respondents representing 50.0% were female, indicating that most of the respondents were female. Demographic and personal profiles of respondents as shown in table 1 by age revealed that 176 respondents representing 44.7% were between the ages of 20-25 years, 144 respondents representing 36.5% were between 26-40 years, and 73 respondents representing 18.5% were 40 years and above, indicating that most of the respondents were between 20-25 years (Table 1). Meanwhile, 195 respondents representing 49.5% had HND/BSc, 114 respondents representing 28.9% had MSc, and 84 respondents representing 21.3% had Ph.D. According to results in (Table 2). 44.4% of respondents rated very high that their experience with the E-banking service is good, 40.1% high, 14.1% low, and 1.0% very low. On average, the respondents indicated that their experience with the E-banking service is good and has a mean of 3.28. Results also indicated that 37.1% of respondents rated very high that they encourage friends, 42.1% high, 16.5% low, and 4.1% very low. On average, the respondents indicated that they encourage friends has a mean of 3.12. Results also indicated that 37.6% of the respondents rated very high that they have been loyal customers when it comes to E-banking service, 43.3% high, 14.7% low, and 4.1% very low. On average, the respondents indicated that they have been loyal customers when it comes to E-banking service has a mean of 3.15. Results also indicated that 31.0% of the respondents rated very high and that the overall service quality of E-banking is excellent, 46.7% high, 18.0% low, and 4.1% very low. On average, the respondents indicated that the overall service quality of E-banking is excellent and has a mean of 3.05. Results also indicated that 38.1% of respondents rated very high that they are happy when it comes to E-banking service, 36.5% high, 20.6% low, and 4.6% very low. On average, the respondents indicated that they are happy when it comes to E-banking service has a mean of 3.08. The weighted mean for customer satisfaction is 3.14 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how customer satisfaction is an appropriate measure of DMBs performance. Moreover, the mean score of 3.14 suggests that customer satisfaction for DMBs is moderately high. In Table 3, operational efficiency was presented as one of the measures of organizational performance for the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE) (Table 3). According to results in Table 3, 36.5% of respondents rated very high that there is operational creativity on display in their bank, 41.1% high, 17.8% low, and 4.3% very low. On average, respondents indicated that there is operational creativity on display in their bank has a mean of 3.10. Results also indicated that 33.8% of respondents rated very high that they are responsive to customer complaints, 46.2% high, 14.7% low, and 5.1% very low. On average, the respondents indicated that they are responsive to customer complaints has a mean of 3.09. Results also indicated that 43.1% of the respondents rated very high that services delivered through E-banking are quick, 35.5% high, 17.0% low, and 4.1% very low. On average, the respondents indicated that services delivered through E-banking are quick has

a mean of 3.18. Results also indicated that 36.0% of the respondents rated very high that information on the banking website is clear and easy to understand, 39.6% high, 20.1% low, and 4.1% very low. On average, the respondents indicated that information on the banking website is clear and easy to understand and has a mean of 3.08. Results also indicated that 37.8% of the respondents rated very high that they are confident their funds are safe with their bank, 41.4% high, 16.5% low, and 4.1% very low. On average, the respondents indicated that they are confident their funds are safe with their bank has a mean of 3.13. Results also indicated that 28.7% of the respondents rated very high that they are confident that the information they share is secured, 48.0% high, 16.8% low, and 6.3% very low.

Table 1: *Demographic characteristics of respondents.*

Variables	Category	Frequency	Percentage
Gender	Male	196	49.7%
	Female	197	50.0%
Age	20-25 years	176	44.7%
	26-40 years	144	36.5%
	40 years and above	73	18.5%
Qualification	HND/BSc	195	49.5%
	MSc	114	28.9%
	Ph.D.	84	21.3%
Source: Field Survey Results (2022)			

Table 2: *Descriptive Analysis of the response to Customer Satisfaction*

Customer Satisfaction	VH	H	L	VL	Mean
My experience with the E-banking service is good	175 (44.4%)	158 (40.1%)	56 (14.2%)	4 (1.0%)	3.28
I encourage friend	146 (37.1%)	166 (42.1%)	65 (16.5%)	16 (4.1%)	3.12
Being a loyal customer when it comes to E-banking service	148 (37.6%)	171 (43.3%)	58 (14.7%)	16 (4.1%)	3.15
Overall service quality of E-banking is excellent	122 (31.0%)	184 (46.7%)	71 (18.0%)	16 (4.1%)	3.05
Being happy when it comes to E-banking service	150 (38.1%)	144 (36.5%)	81 (20.6%)	18 (4.6%)	3.08
Weighted Mean					3.14
Source: Field Survey Results (2022)					

Table 3: *Descriptive Analysis of the response to Operational Efficiency*

Operational Efficiency	VH	H	L	VL	MEAN
There is operational creativity on display in my bank	144 (36.5%)	162 (41.1%)	70 (17.8%)	17 (4.3%)	3.10
Responsive to customer complaints	133 (33.8%)	182 (46.2%)	58 (14.7%)	20 (5.1%)	3.09
Services delivered through E-banking are quick	170 (43.1%)	140 (35.5%)	67 (17.0%)	16 (4.1%)	3.18
Information on the banking website is clear and easy to understand	142 (36.0%)	156 (39.6%)	79 (20.1%)	16 (4.1%)	3.08
I am confident my funds are safe with my bank	149 (37.8%)	163 (41.4%)	65 (16.5%)	16 (4.1%)	3.13
I am confident that the information I share is secured	113 (28.7%)	189 (48.0%)	66 (16.8%)	25 (6.3%)	2.99
I am confident that the information I share is received by the right person	130 (33.0%)	174 (44.2%)	60 (15.2%)	29 (7.4%)	3.03
The communication I receive from my bank tells me what I need to know to avoid falling for cyber-fraudsters	113 (28.7%)	170 (43.1%)	85 (21.6%)	25 (6.3%)	2.94
Service disruptions leading to cashback errors are treated timely	184 (46.7%)	141 (35.8%)	44 (11.2%)	24 (6.1%)	3.23
Weighted Mean					**3.09**

Source: Field Survey Results (2022)

Table 4: *Descriptive Analysis of the response to E-Banking Effectiveness*

E-Banking Effectiveness	SA	A	D	SD	Mean
Information on the banking website is clear and easy to understand	192 (48.7%)	129 (32.7%)	60 (15.2%)	12 (3.0%)	3.27
I can easily find what I am looking for on the bank portal	165 (41.9%)	155 (39.3%)	61 (15.5%)	12 (3.0%)	3.20
My banking portal has all information I need to manage my account	92 (23.4%)	191 (48.5%)	90 (22.8%)	20 (5.1%)	2.90
My banking portal works well technically, loads quickly, and displays appropriately	149 (37.8%)	141 (35.8%)	62 (15.7%)	41 (10.4%)	3.01
My banking portal meets my needs	125 (31.7%)	166 (42.1%)	78 (19.8%)	24 (6.1%)	3.00
I found that the E-banking service is easy to use	169 (42.9%)	117 (29.7%)	71 (18.0%)	36 (9.1%)	3.07
Services delivered through E-banking are quick	128 (32.9%)	163 (41.4%)	58 (14.7%)	44 (11.2%)	2.95
Weighted Mean					3.06
Source: Field Survey Results (2022)					

Table 5: *Descriptive Analysis of the response to E-Banking Safety*

E-Banking Safety	SA	A	D	SD	Mean
I have high confidence in the E-banking service in the bank	141 (35.8%)	165 (41.9%)	71 (18.0%)	16 (4.1%)	3.10
E-banking is dependable	101 (25.6%)	222 (56.3%)	58 (14.7%)	12 (3.0%)	3.05
E-banking service provides high protection for my banking transaction	133 (33.8%)	158 (40.1%)	77 (19.5%)	25 (6.3%)	3.02
I feel secure while making transactions through the internet	153 (38.8%)	146 (37.1%)	73 (18.5%)	21 (5.3%)	3.10
E-banking services offer secure personal privacy	126 (32.0%)	168 (42.6%)	70 (17.8%)	29 (7.4%)	2.99
Weighted Mean					3.05
Source: Field Survey Results (2022)					

Table 6: *Descriptive Analysis of the response to E-Banking Transaction Support*

E-Banking Transaction Support	SA	A	D	SD	Mean
I can conveniently process multiple transactions without issues	204 (51.8%)	113 (28.7%)	71 (18.0%)	5 (1.3%)	3.31
My banks' e-banking platforms are very interactive	132 (33.5%)	171 (43.4%)	81 (20.6%)	9 (2.3%)	3.08
My bank provides adequate information that aids service delivery	157 (39.8%)	137 (34.8%)	99 (25.1%)	-	3.15
My bank provides adequate support to address a customer complaint	137 (34.8%)	166 (42.1%)	82 (20.8%)	8 (2.0%)	3.10
My bank's customer care unit is very responsive to customer need	146 (37.1%)	152 (38.6%)	91 (23.1%)	4 (1.0%)	3.12
Weighted Mean					3.15
Source: Field Survey Results (2022)					

Table 7: *Descriptive Analysis of the response to Control Activities*

Control Activities	VH	H	L	VL	Mean
My bank upheld ethical values in all dealings with customers	134 (34.0%)	166 (42.1%)	49 (12.4%)	44 (11.2%)	2.99

My bank has a structure that spells out the responsibilities of each unit so customers know where to go in times of need	90 (22.8%)	205 (52.0%)	74 (18.8%)	24 (6.1%)	2.92
My bank conducts a periodic survey to ascertain customer experience with e-banking safety	101 (25.6%)	209 (53.0%)	63 (16.0%)	20 (5.1%)	2.99
My bank has integrity and has a core value in all dealings with customers	110 (27.9%)	198 (50.3%	65 (16.5%)	20 (5.1%)	3.01
My bank has measures to ensure risk to client data is minimal to zero	150 (38.1%)	125 (31.7%)	98 (24.9%)	20 (5.1%)	3.03
Weighted Mean					3.00
Source: Field Survey Results (2022)					

Table 8: Descriptive Analysis of the response to Control Environment

Control Environment	**VH**	**H**	**L**	**VL**	**Mean**
Proper background checks are performed during customer registration	101 (25.6%)	202 (51.3%)	78 (19.8%)	12 (3.0%)	3.00
Ethical behavior is seen in how staff address customers	116 (29.4%)	185 (47.0%)	84 (21.3%)	8 (2.0%)	3.04
There is a specific staff assigned to a specific responsibility	117 (29.7%)	194 (49.2%)	74 (18.8%)	8 (2.0%)	3.07
Emphasis is on automated processes	141 (35.8%)	181 (45.9%)	54 (13.7%)	17 (4.3%)	3.13
There is evidence of a clear chain of command in my bank	125 (31.7%)	168 (42.6%)	74 (18.8%)	26 (6.6%)	3.00
Weighted Mean					3.05
Source: Field Survey Results (2022)					

Table 9: *Descriptive Analysis of the response to Risk Assessment*

Risk Assessment	**VH**	**H**	**VL**	**L**	**Mean**
My bank warns against sharing sensitive account details with strangers	149 (37.8%)	125 (31.7%)	93 (23.6%)	26 (6.6%)	3.01
There is a unit in my bank dedicated to dealing with fraud on customer account	110 (27.9%)	176 (44.7%)	87 (22.1%)	20 (5.1%)	2.96
There are mechanisms in place to mitigate customer risks	101 (25.6%)	161 (40.9%)	99 (25.1%)	32 (8.1%)	2.84
Staff attending to customer bear names in the event of referral	102 (25.9%)	173 (43.9%)	81 (20.6%)	37 (9.4%)	2.87
My bank has in place mechanisms for mitigating critical risks that may result in customers being defrauded	77 (19.5%)	197 (50.0%)	86 (21.8%)	33 (8.4%)	2.81
My bank ensures proper accountability regarding fraud-related customer complaints about its employee	106 (26.9%)	169 (42.9%)	78 (19.8%)	40 (10.2%)	2.87
Weighted Mean					2.89
Source: Field Survey Results (2022)					

Table 10: *Summary of multiple regression analysis for the influence of E-banking service quality on Customer satisfaction of DMBs in Nigeria*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429[a]	.184	.178	.56721

a. Predictors: (Constant), EBankingTransactionsupport, EBankingEfficiency, EBankingSafety

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.228	3	9.409	29.246	.000[b]
	Residual	125.152	389	.322		
	Total	153.380	392			

a. Dependent Variable: customer satisfaction

b. Predictors: (Constant), E-Banking Transaction support, E-Banking Efficiency, E-Banking Safety

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.654	.187		8.831	.000
	E-Banking Efficiency	.352	.053	.384	6.707	.000
	E-Banking Safety	.003	.061	.003	.053	.958
	E-Banking Transaction support	.125	.048	.126	2.629	.009

a. Dependent Variable: customer satisfaction

Source: Field Survey Results (2022)

Table 11: *Summary of multiple regression analysis for the effect of internal control system on the operational efficiency of DMBs in Nigeria*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.433[a]	.188	.182	.56416

a. Predictors: (Constant), Risk Assessment, Control activities, Control environment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.641	3	9.547	29.996	.000[b]
	Residual	123.811	389	.318		
	Total	152.452	392			

a. Dependent Variable: Operational efficiency

b. Predictors: (Constant), Risk Assessment, Control activities, Control environment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.863	.160		11.669	.000
	Control activities	.318	.056	.341	5.704	.000
	Control environment	-.028	.062	-.028	-.448	.654
	Risk Assessment	.124	.062	.145	2.005	.046

a. Dependent Variable: Operational efficiency

Source: Field Survey Results (2022)

Table 12: Summary of multiple regression analysis for the effect of E-banking service quality and internal control system on the performance of DMBs in Nigeria

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501[a]	.251	.247	.47747
a. Predictors: (Constant), Internal Control system, E-Banking service Q				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.773	2	14.886	65.297	.000[b]
	Residual	88.912	390	.228		
	Total	118.685	392			
a. Dependent Variable: Performance						
b. Predictors: (Constant), Internal Control system, E-Banking service Q						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.346	.160		8.400	.000
	E-Banking Service Quality	.545	.073	.481	7.427	.000
	Internal Control system	.028	.069	.026	.399	.690
a. Dependent Variable: Performance						
Source: Field Survey Results (2022)						

On average, the respondents indicated that they are confident that the information they share is secured has a mean of 2.99. Results also indicated that 33.0% of the respondents rated very high that they are confident that the information they share is received by the right person, 44.2% high, 15.2% low, and 7.4% very low. On average, the respondents indicated that they are confident that the information they share is received by the right person and has a mean of 3.03. Results also indicated that 28.7% of the respondents rated very high that the communication they receive from their bank tells them what they need to know to avoid falling for cyber-fraudsters, 43.1% high, 21.6% low, and 6.3% very low. On average, the respondents indicated that the communication they receive from their bank tells them what they need to know to avoid falling for cyber-fraudsters has a mean of 2.94. Results also indicated that 46.7% rated very high service disruptions leading to cashback errors being treated timely, 35.8% high, 11.2% low, and 6.1% very low. On average, the respondents indicated that service disruptions leading to cashback errors are treated timely has a mean of 3.23. The weighted mean for operational efficiency is 3.09 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how operational efficiency is an appropriate measure of DMBs performance. Moreover, the mean score of 3.09 suggests that operational efficiency for DMBs is moderately high. In Table 4, E-Banking Effectiveness was presented as one of the measures of E-banking service quality of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE). According to the results in Table 4, 48.7% of respondents strongly agree that information on the banking website is clear and easy to understand, 32.7% agree, 15.2% disagree, and 3.0% strongly disagree (Table 4). On average, the respondents indicated that information on the banking website is clear and easy to understand and has a mean of 3.27. Results also indicated that 41.9% of respondents strongly agree that they can easily find what they are looking for on the bank portal, 39.3% agree, 15.5% disagree, and 3.0% strongly disagree. On average, the respondents indicated that they can easily find what they are looking for on the bank portal has a mean of 3.20. Results also indicated that 23.4% of the respondents strongly agree that their banking portal has all information they need to manage their account, 48.5% agree, 22.8% disagree, and 5.1% strongly disagree. On average, the respondents indicated that their banking portal has all information they need to manage their account has a mean of 2.90. Results

also indicated that 37.8% of the respondents strongly agree that the banking portal works well technically, loads quickly, and displays appropriately, 35.8% agree, 15.7% disagree, and 10.4% strongly disagree. On average, the respondents indicated that their banking portal works well technically, loads quickly, and displays appropriately have a mean of 3.01. Results also indicated that 31.7% of respondents strongly agree that their banking portal meets my needs, 42.1% agree, 19.8% disagree, and 6.1% strongly disagree. On average, the respondents indicated that their banking portal meets my needs and has a mean of 3.00. Results also indicated that 42.9% of respondents strongly agree that they found that the E-banking service is easy to use, 29.7% agree, 18.0% disagree, and 9.1% strongly disagree. On average, respondents indicated that they found that the E-banking service is easy to use and has a mean of 3.07. Results also indicated that 32.9% of respondents strongly agree that services delivered through E-banking are quick, 41.4% agree, 14.7% disagree, and 11.2% strongly disagree. On average, the respondents indicated that services delivered through E-banking are quick has a mean of 2.95. The weighted mean for E-Banking Effectiveness is 3.06 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how E-Banking Effectiveness is an appropriate measure of E-Banking service quality. Moreover, the mean score of 3.09 suggests that E-Banking Effectiveness for DMBs is moderately high. In Table 5, E-Banking safety was presented as one of the measures of E-banking service quality of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE). According to results in Table 5, 35.8% of respondents strongly agree that they have high confidence in the E-banking service in the bank, 41.9% agree, 18.0% disagree, and 4.0% strongly disagree (Table 5). On average, the respondents indicated that they have high confidence in the E-banking service in the bank has a mean of 3.10. Results also indicated that 25.6% of respondents strongly agree that E-banking is dependable, 56.3% agree, 14.7% disagree, and 3.0% strongly disagree. On average, the respondents indicated that E-banking is dependable and has a mean of 3.05. Results also indicated that 33.8% of the respondents strongly agree that E-banking service provides high protection for a banking transaction, 40.1% agree, 19.5% disagree, and 6.3% strongly disagree. On average, the respondents indicated that the E-banking service provides high protection for my banking transaction and has a mean of 3.02. Results also indicated that 38.8% of the respondents strongly agree that they feel secure while making transactions through the internet, 37.1% agree, 18.5% disagree, and 5.3% strongly disagree. On average, the respondents indicated that they feel secure while making transactions through the internet has a mean of 3.10. Results also indicated that 32.0% of respondents strongly agree that E-banking services offer secure personal privacy, 42.6% agree, 17.8% disagree, and 7.4% strongly disagree. On average, the respondents indicated that E-banking services offer secure personal privacy has a mean of 2.99. The weighted mean for E-Banking safety is 3.05 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how E-Banking safety is an appropriate measure of E-Banking service quality. Moreover, the mean score of 3.09 suggests that E-Banking safety for DMBs is moderately high. In Table 6, E-Banking transaction support was presented as one of the measures of E-banking service quality of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE). According to the results in Table 6, 51.8% of respondents strongly agree that they can conveniently process multiple transactions without issues, 28.7% agree, 18.0% disagree, and 1.3% strongly disagree (Table 6). On average, the respondents indicated that they can conveniently process multiple transactions without issues has a mean of 3.31. Results also indicated that 33.5% of respondents strongly agree that their bank's e-banking platforms are very interactive, 43.4% agree, 20.6% disagree, and 2.3% strongly disagree. On average, the respondents indicated that their bank's e-banking platforms are very interactive has a mean of 3.08. Results also indicated that 39.8% of the respondents strongly agree that their bank provides adequate information that aid service delivery, 34.8% agree, and 25.1% disagree. On average, the respondents indicated that their bank provides adequate information that aid service delivery has a mean of 3.15. Results also indicated that 34.8% of the respondents strongly agree that their bank provides adequate support to address customer complaints, 42.1% agree, 20.8% disagree, and 2.0% strongly disagree. On average, the respondents indicated that their bank provides adequate support to address customer complaints has a mean of 3.10. Results also indicated that 37.1% of respondents strongly agree that their bank's customer care unit is very responsive to customer needs, 38.6% agree, 23.1% disagree, and 1.0% strongly disagree. On average, the respondents indicated that their bank's customer care unit is very responsive to customer needs and has a mean of 3.12. The weighted mean for E-Banking transaction support is 3.15 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how E-Banking transaction support is an appropriate measure of E-Banking service quality. Moreover, the mean score of 3.15 suggests that E-Banking safety for DMBs is moderately high. In Table 7, Control Activities was presented as one of the measures of the internal

control system of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE). According to results in Table 7, 34.0% of respondents rated very high that their bank upheld ethical values in all dealings with customers, 42.1% high, 12.4% low, and 11.2% very low (Table 7). On average, the respondents indicated that their bank upheld ethical values in all dealings with customers having a mean of 2.99. Results also indicated that 22.8% of respondents rated very high that their bank has a structure that spells out the responsibilities of each unit so customers know where to go in times of need, 52.0% high, 18.8% low, and 6.1% very low. On average, the respondents indicated that their bank has a structure that spells out the responsibilities of each unit so customers know where to go in times of need has a mean of 2.92. Results also indicated that 25.6% of the respondents rated very high that their bank conduct a periodic survey to ascertain customer experience of e-banking safety, 53.0% high, 16.0% low, and 5.1% very low. On average, the respondents indicated that their bank conducts periodic surveys to ascertain customer experience of e-banking safety has a mean of 2.99. Results also indicated that 27.9% of the respondents rated very high that their bank has integrity, has a core value in all dealings with customers, 50.3% high, 16.5% low, and 5.1% very low. On average, the respondents indicated that their bank has integrity, has a core value in all dealings with customers has a mean of 3.01. Results also indicated that 38.1% of respondents rated very high that their bank has measures to ensure risk to client data is minimal to zero, 31.7% high, 24.9% low, and 5.1% very low. On average, the respondents indicated that their bank has measures to ensure risk to client data is minimal to zero having a mean of 3.03. The weighted mean for control activities is 3.00 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how control activities are an appropriate measure of the internal control system. Moreover, the mean score of 3.00 suggests that the internal control system for DMBs is moderately high. In Table 8, the control environment was presented as one of the measures of the internal control system of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE) (Table 8). checks are performed during customer registration, 51.3% high, 19.8% low, and 3.0% very low. On average, respondents indicated that proper background checks performed during customer registration have a mean of 3.00. Results also indicated that 29.4% of respondents rated very high that ethical behaviour is seen in how staff address customers, 47.0% high, 21.3% low, and 2.0% very low. On average, the respondents indicated that ethical behaviour is seen in how staff addresses customers have a mean of 3.04. Results also indicated that 29.7% of the respondents rated very high that there is a specific staff assigned to a specific responsibility, 49.2% high, 18.8% low, and 2.0% very low. On average, the respondents indicated that there is a specific staff assigned to specific responsibility has a mean of 3.07. Results also indicated that 35.8% of the respondents rated very high that emphasis is on automated processes, 45.9% high, 13.7% low, and 4.3% very low. On average, the respondents indicated that emphasis on automated processes has a mean of 3.13. Results also indicated that 31.7% of the respondents rated very high that there is evidence of a clear chain of command in my bank, 42.6% high, 18.8% low, and 6.6% very low. On average, the respondents indicated that there is evidence of a clear chain of command in my bank has a mean of 3.00. The weighted mean for the control environment is 3.05 which indicates that on average, respondents agreed with most of the statements on the high scale as it relates to how control activities are an appropriate measure of the internal control system. Moreover, the mean score suggests that the internal control system for DMBs is moderately high. In Table 9, Risk Assessment was presented as one of the measures of the internal control system of the DMBs in Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a four-point Likert-type scale (4 for very high extent (VHE), 3 for high extent (HE), 2 for low extent (LE), and 1 for very low extent (VLE) (Table 9). According to results in Table 10, 37.8% of respondents rated very high that their bank warns against sharing sensitive account details with strangers, 31.7% high, 23.6% low, and 6.6% very low. On average, respondents indicated that their bank warns against sharing sensitive account details with strangers has a mean of 3.01. Results also indicated that 27.9% of the respondents rated very high that there is a unit in my bank dedicated to dealing with fraud on customer accounts, 44.7% high, 22.1% low, and 5.1% very low. On average, the respondents indicated that there is a unit in my bank dedicated to dealing with fraud on customer accounts has a mean of 2.96. Results also indicated that 25.6% of respondents rated very high that there are mechanisms in place to mitigate customer risks, 40.9% high, 25.1% low, and 8.1% very low. On average, the respondents indicated that there are mechanisms in place to mitigate customer risks has a mean of 2.84. Results also indicated that 25.9% of the respondents rated very high that staff attending to customer bear names in the event of a referral, 43.9% high, 20.6% low, and 9.4% very low. On average, the respondents indicated that staff attending to customer bear names in the event of referral has a mean of 2.87. Results also indicated that 19.5% of the respondents rated very high that their bank has in place

mechanisms for mitigating critical risks that may result in customers being defrauded, 50.0% high, 21.8% low, and 8.4% very low. On average, the respondents indicated that their bank has in place mechanisms for mitigating critical risks that may result in customers being defrauded has a mean of 2.81. Results also indicated that 29.6% of the respondents rated very high that their bank ensures proper accountability regarding fraud-related customer complaints about its employee, 42.9% high, 19.8% low, and 10.2% very low. On average, the respondents indicated that their bank ensures proper accountability regarding fraud-related customer complaints about its employee has a mean of 2.87. The weighted mean for Risk Assessment is 2.89 which indicates that on average, respondents agreed with most of the statements on the averagely-high scale as it relates to how Risk Assessment is an appropriate measure of the internal control system. Moreover, the mean score of 2.89 suggests that the internal control system for DMBs is moderately high.

Test of Hypotheses

The decision rule here is stated as follows; the pre-set level of significance for this study was 0.05. If the p-value which indicated the significance or the probability value exceeded the pre-set level of significance ($p > 0.05$), the hypothesis stated in the null form is accepted, however, if the p-value is less than or equal to 0.05 ($p \leq 0.05$), the hypothesis is rejected.

$H_0$1: E-banking service quality has no significant effect on customer satisfaction of DMBs in Nigeria

The null hypothesis which states that E-banking service quality has no significant effect on customer satisfaction of DMBs in Nigeria was tested using multiple regression analysis. In the analysis, the values of customer satisfaction were regressed on the values of E-banking service quality sub-measures. The data for E-banking service quality (independent variable) was generated by summing responses of all variable items (E-banking efficiency, trust, and transaction support) respectively while that of customer satisfaction (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in (Table 10). Table 10 presents the results of the multiple regression analysis for the influence of E-banking service quality on Customer satisfaction of DMBs in Nigeria. From the results in Table 10, E-banking service quality has a positive and strong relationship with customer satisfaction of DMBs in Nigeria (R = 0.429). The coefficient of determination (Adj. R2) of 0.178 shows that E-banking service quality explains 17.8% of the changes in Customer satisfaction of DMBs while the remaining 82.2% variation in Customer satisfaction of DMBs in Nigeria is explained by other variables not investigated in this study. Table 10 presents the results of the ANOVA (overall model significance) regression test which revealed that E-banking service quality has a significant effect on customer satisfaction of DMBs in Nigeria. This can be explained by the F-value (29.246) and low p-value (0.000) which is statistically significant at a 95% confidence interval. Hence, the result posited that E-banking service quality significantly influenced customer satisfaction with DMBs in Nigeria. In addition, the results of regression coefficients in table 6, revealed while 'E-banking service efficiency and transaction support had a significant relative effect on customer satisfaction of DMBs in Nigeria, 'E-banking service safety' has insignificant relative influence. In addition, the results of regression coefficients in Table 10 revealed that at a 95% confidence level, a unit change in E-banking service efficiency will lead to a 0.352 increase in the customer satisfaction of DMBs given that all other factors are held constant. Also, at a 95% confidence level, a unit change in E-banking service transaction support will lead to a 0.125 increase in the customer satisfaction of DMBs in Nigeria given that all other factors are held constant. Of the E-banking service quality indicators examined, E-banking service efficiency (β=0.352) has the highest relative influence on Customer satisfaction of DMBs in Nigeria followed by E-banking service transaction support (β=0.125). On the strength of this result (Adj. R2 = 0.178, F (3, 389) = 29.246, p= 0.000), this study rejects the null hypothesis one (H01) which states that E-banking service quality has no significant effect on customer satisfaction of DMBs in Nigeria.

$H_0$2: Internal control system has no significant effect on the operational efficiency of DMBs in Nigeria

The null hypothesis two which states that the internal control system has no significant effect on the operational efficiency of DMBs in Nigeria was tested using multiple regression analysis. In the analysis, the values of operational efficiency were regressed on the values of internal control system sub-measures. The data for the Internal control system (independent variable) was generated by summing responses of all variable items (control activity, control environment, and risk assessment) respectively while that of operational efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in table 11 presents the results of the multiple regression analysis for the influence of the internal control system on the operational efficiency of DMBs in Nigeria (Table 11). From the results in Table 11, the internal control system has a positive and weak relationship with the operational efficiency of DMBs in Nigeria (R = 0.429). The coefficient of determination (Adj. R2) of 0.182 shows that the internal control system explains 18.2% of the variations in the operational efficiency of DMBs while the remaining 81.8% variation in operational efficiency of DMBs in Nigeria is explained by other variables not investigated in this study. Table 4.6b presents the

results of ANOVA (overall model significance) of the regression test which revealed that the internal control system has a significant effect on the operational efficiency of DMBs in Nigeria. This can be explained by the F-value (29.996) and low p-value (0.000) which is statistically significant at a 95% confidence interval. Hence, the result posited that the internal control system has a significant effect on the operational efficiency of DMBs in Nigeria. In addition, the results of regression coefficients in Table 10 revealed while 'control activities and risk assessment had a significant relative effect on the operational efficiency of DMBs in Nigeria, 'control environment' has insignificant relative influence. In addition, the results of regression coefficients in table 5, revealed that at a 95% confidence level, a unit change in control activities will lead to a 0.318 increase in the operational efficiency of DMBs given that all other factors are held constant. Also, at a 95% confidence level, a unit change in risk assessment will lead to a 0.124 increase in the operational efficiency of DMBs in Nigeria given that all other factors are held constant. Of the Internal control system indicators examined, Control activities (β=0.318) have the highest relative influence on the Operational efficiency of DMBs in Nigeria followed by risk assessment (β=0.125). On the strength of this result (Adj. R2 = 0.182, F (2, 389) = 29.996, p= 0.000), this study rejects null hypothesis two (H02) which states that the internal control system has no significant effect on the operational efficiency of DMBs in Nigeria.

$H_0$3: E-banking service quality and internal control system have no significant effect on the performance of DMBs in Nigeria

The null hypothesis three which states that E-banking service quality and internal control system has no significant effect on the performance of DMBs in Nigeria was tested using multiple regression analysis. In the analysis, the values of performance were regressed on the values of E-banking service quality and internal control system. The data for E-banking service quality and internal control system (independent variables) was generated by summing responses of all variable items respectively while that of performance (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Table 12. Table 12 presents the results of the multiple regression analysis for the effect of E-banking service quality and internal control system on the performance of DMBs in Nigeria. From the results in Table 12, E-banking service quality and internal control system have a positive and averagely strong relationship with the performance of DMBs in Nigeria (R = 0.501). The coefficient of determination (Adj. R2) of 0.247 shows that E-banking service quality and internal control system explains 24.7% of the variations in the performance of DMBs while the remaining 75.3% variation in performance of DMBs in Nigeria is explained by other variables not investigated in this study. Table 12 presents the results of ANOVA (overall model significance) of the regression test which revealed that E-banking service quality and internal control system has a significant effect on the performance of DMBs in Nigeria. This can be explained by the F-value (65.297) and low p-value (0.000) which is statistically significant at a 95% confidence interval. Hence, the result posited that E-banking service quality and internal control system has a significant effect on the performance of DMBs in Nigeria. In addition, the results of regression coefficients in (Table 12), revealed while E-banking service quality had a significant relative effect on the performance of DMBs in Nigeria, the 'internal control system' has insignificant relative influence. Furthermore, the results of regression coefficients in table 6, revealed that at a 95% confidence level, a unit change in E-banking service quality will lead to a 0. 545 increase in the performance of DMBs given that all other factors are held constant. As such only, the internal control system has the highest relative effect (β=0.545). On the strength of this result (Adj. R2 = 0.247, F (2, 390) = 65.297, p= 0.000), this study rejects the null hypothesis three (H03) which states that E-banking service quality and internal control system has no significant effect on the performance of DMBs in Nigeria.

Conclusion and Recommendations

This study examined the effect of electronic banking service quality and internal control system on the organisational performance of selected deposit money banks in Nigeria. Based on the empirical findings, this study concluded that there was a statistically significant effect of E-banking service quality (E-banking service efficiency, safety, and transaction support) and internal control system (control environment, control activities, and risk assessment) on each of the measures of organizational performance which include customer satisfaction, operational efficiency. Hence, the study established that E-banking service quality and internal control system has a significant effect on the organizational performance of DMBs in Nigeria.

Based on the findings, the following recommendations were made:

1. The study established that E-banking service safety needs attention given its insignificant relative influence on customer satisfaction. Management effort is required to give assurance to bank customers that E-banking platforms are safe.
2. The study posits that the internal control system has a weak contribution to DMBs' operational efficiency. Hence, the management of DMBs in Nigeria should continue to ensure it adopts up-to-date control systems using innovative technology as much as improve upon its control

environment given its insignificant relative effect on operational efficiency.

3. E-banking service quality and internal control system for the DMBs examined although has a significant effect on performance however, individually and collectively the independent variables had weak contributions to performance. This requires a re-evaluation of the status-quo to recommit resources to better customer banking experience in Nigeria. It is imperative for management to re-energize their commitment to offering opportunities to their staff in terms of learning and upskilling their capability to deliver excellently.

References

1. Surucu-Balci E, Balci G, Yuen KF. Social media engagement of stakeholders: A decision tree approach in container shipping. Computers in Industry. 2020; 115: 103-152.
2. Sahibzada UF, Cai J, Latif KF, Sahibzada HF. Knowledge management processes, knowledge worker satisfaction, and organizational performance. Aslib J Information Management. 2019; 72: 112-129.
3. Awan JH, Memon S, Shah MH, Awan FH. Security of e-Government services and challenges in Pakistan. SAI Computing Conference (SAI). 2016.
4. Hanass-Hancock J, Nene S, Deghaye N, and Pillay S. These are not luxuries, it is essential for access to life: Disability related out-of-pocket costs as a driver of economic vulnerability in South Africa. African J Disability. 2017; 6.
5. Jouda H, Abu Jarad A, Obaid T, Abu Mdallalah S, Awaja A. Mobile banking adoption: Decomposed theory of planned behaviour with perceived trust. SSRN Electronic J. 2020.
6. Eswaran S, Islam M. A, Yusuf DH. A study of the relationship between the Big Five personality dimensions and job involvement in a foreign based financial institution in Penang. Inter Business Res. 2011; 4.
7. Nair M, Subramanyan K, Nair B, Diwakar S. Parameter optimization and nonlinear Fitting for computational models in neuroscience on GPGPUs. 2014 Inter Conference on High Performance Computing and Applications (ICHPCA). 2020.
8. Siddiqui AA, Raza-us-Samad M, Siddiqui FA, Shaikh ZA. Community health information system focusing Pakistan. 2013 5th International Conference on Information and Communication Technologies. 2013.
9. Gerdes GR, Walton JK. The use of checks and other noncash payment instruments in the United States. Federal Reserve Bulletin. 2010; 360-370.
10. Gerrard P, Cunningham JB. The diffusion of internet banking among Singapore consumers. Inter J Bank Marketing. 2013; 21: 16-28.
11. Giannakoudi S. Internet banking: The digital voyage of banking and money in cyberspace. Information and Communications Technology Law. 2016; 8: 205-243.
12. Greene WH. Econometric analysis, Macmillan Publishing Company, New York, NY. 2010.
13. Hendrikse M, Christiaanse E. Mobile Commerce: An exploratory study impacts in mobile services, PrimaVera Working Paper. 2003; 2000-25.
14. Ho SSM, Ng VTF. Customers' risk perceptions of electronic payment system. Int J Bank Marketing. 2010; 12: 26-39.
15. Jun M, Cai S. The key determinants of internet banking service quality: a content analysis, Inter J of Bank Marketing. 2019; 19: 276-291.
16. Karjaluoto H. Selection criteria for a mode of bill payment: empirical investigation among Finnish bank customers. Inter J Retail and Distribution Management. 2013; 30: 331-339.
17. Karjaluoto H, Mattila M, Pento T. Electronic banking in Finland: consumer beliefs and reactions to a new delivery channel. J Financial Service Marketing. 2019; 6: 346-361.
18. Katz J, Aspden P. Motivations for and barriers to internet usage: results of a national public opinion survey. Internet Res. 2010; 7: 170.
19. Levesque T, McDougall GHG. Determinants of customer satisfaction in retail banking. Int J Bank Marketing. 2010; 14: 12-20.
20. Li F. Internet banking: From new distribution channels to new business models. Inter J Business Performance Management. 2018; 4: 136-160.
21. Liao Z, Cheung M. T. Internet-based e-banking and consumer attitudes: An empirical study. Information and Management. 2019; 39: 283-295.
22. Llosa S, Chandon J, Orsingher C. An empirical study of SERVQUAL's dimensionality. The Service Industries J. 2018: 18: 16-44.
23. Lockett A, Littler D. The adoption of direct banking services. J Marketing Management. 2018; 13: 791-811.
24. Kinney W, McDaniel L. Characteristics of firms correcting previously reported quarterly earnings. J Accounting and Economics. 2019; 11: 71-93.
25. Klein A. Likely effects of stock exchange governance proposals and Sarbanes-Oxley on corporate boards. Accounting Horizons. 2018: 17: 343-355.
26. Krishnan J. Audit committee quality and internal control: An empirical analysis. The Accounting Review. 2017; 80: 649-675.
27. Mayper A. Consensus of auditors' materiality judgments of internal accounting control weaknesses. J Accounting Res. 2012: 20: 773-783.
28. Mayper M, Doucet S. Warren C. Auditors' materiality judgments of internal accounting control weaknesses. Auditing: A J Practice Theory. 2018; 9: 72-86.
29. McMullen D, Raghunandan K, Rama D. V. Internal control reports and financial reporting problems. Accounting Horizons. 2014; 10: 67-75.
30. Messier W, Martinov-Bennie N, Eilifsen A. A review and integration of empirical research on materiality: two decades later. Auditing: A J Practice Theory. 2012; 24: 153-187.

Citation: Oyedokun GE, Oyetunji AR (2022). E-Banking Service Quality, Internal Control System and Organisational Performance of Selected Deposit Money Banks in Nigeria. SunText Rev Econ Bus 3(3): 168.

31. Lebakeng TJ, Payle KD. Prospects and problems of mainstreaming indigenous knowledge in South Africa: Issues in the Academy. Africa Insight. 2004; 33.
32. Onyekwelu C, Ironkwe U. Human resource accounting and corporate financial performance of quoted insurance companies in Nigeria. Res J Management Practice. 2021; 20-39.
33. Qiang X, Sarpong RKF, Nsiah TK. Factor's influencing E-service satisfaction in tertiary education in Ghana. EPRA Inter J Multidisciplinary Res. 2020; 1-16.
34. Pakhchanyan S. Operational risk management in financial institutions: A literature review. Inter J Financial Studies. 2016; 4: 20.
35. Peter AO, Cletus OO, Ugonma N. Effects of bank credits on the manufacturing sector output in Nigeria (1981-2018). Inter J Sci Management Studies. 2020; 74-85.
36. Funso T, Kolade R, Ojo M. Credit risk and commercial banks' performance in Nigeria: A panel model approach. Australian J Business Management Res. 2012; 2: 31-38.
37. Daneji AM, Bambale AJ. Mediating effect of intrapreneurship on psychological ownership and teachers' in-role performance. SSRN Electronic J. 2019.
38. Shitundu J. Growth and structure of Tanzania's industrial sector investment and employment. African J Finance Management. 2000; 8.
39. Oyedokun GE, Orenuga B, Adeolu-Akande MA. E-banking services and performance of deposit money banks in Nigeria. Global Res J Accounting Finance. 2021; 2: 80-92.
40. Omofowa SM, Omofowa S, Nwachukwu C, Le V. E-Banking service quality and customer satisfaction: Evidence from deposit money bank in South-South, Nigeria. Webology. 2021; 18: 288-302.
41. Rauf M, Nomani MZM. Customer perception and satisfaction of e-Banking Services in Maldives. High Technology Letters. 2020; 11-18.
42. Umar H, Dikko MU. The effect of internal control on performance of commercial banks in Nigeria. Int J Management Res Review. 2018; 8: 13-32.
43. Babatunde O, Ogbeide S. E-Banking in Nigeria: Issues and challenges. Res J Finance Accounting. 2017; 8: 16-24.
44. Akarara EA, Nathan E. e-banking service quality and customers' satisfaction: evidence from customers of deposit money banks in yenagoa metropolis, Nigeria. Inter J Innovative Res Adv Stud. 2019; 6: 119-126.
45. Mon OM, Mon MT. Flow path computing in software defined networking. 2019 Int Conference on Advanced Information Technologies (ICAIT). 2019.

Citation: Oyedokun GE, Oyetunji AR (2022). E-Banking Service Quality, Internal Control System and Organisational Performance of Selected Deposit Money Banks in Nigeria. SunText Rev Econ Bus 3(3): 168.