DIGITAL DEXTERITY AND SERVICE ASSURANCE OF SELECTED QUOTED DEPOSIT MONEY BANKS IN NIGERIA

Akinosi J. R¹, Akpa, V. O², Makinde, G. O³, Nwankwere, I.A⁴, & Ajike, E. O⁵
Department of Business Administration and Marketing, School of Management Sciences, Babcock University, Ilisan-Remo, Ogun State, NIGERIA

ABSTRACT

As the digital age unfolds, bank executives face new strategic choices about how to take advantage of fast-moving digital innovations. Extant studies have shown that value comes not simply from adopting digital technology, but from using technology to transform the way banks do business. However, integrating and exploring new digital technologies is one of the biggest challenges that banks currently face. Hence, this study examined the effect of digital dexterity on service assurance of selected Quoted Deposit Money Banks in Nigeria. Survey research design was adopted. The population was 6,975,037 corporate customers and 4,873 employees of eight systemically important deposit money banks operating in Lagos, Nigeria. A sample size of 501 corporate customers and 464 bank employees was determined using Raosoft calculator. Convenience sampling technique was adopted for bank corporate customers, while stratified random sampling technique was adopted for bank employees. A validated questionnaire was used to collect data. Cronbach’s alpha reliability coefficients for the constructs ranged from 0.79 to 0.92. The response rate was 95.4%. Data were analyzed using descriptive and inferential statistics. The result of multiple regression analysis revealed that organizational responsiveness ($\beta = 0.978, t = 64.936, p<0.05$) have positive and significant effect on service assurance, organization flexibility ($\beta = 0.002, t = 0.111, p>0.05$) have positive but insignificant effect on service assurance, while organizational proactiveness ($\beta = -0.373, t = -0.174, p>0.05$) had negative and insignificant effect on service assurance of selected quoted deposit money banks in Nigeria. On the overall, the combination of digital dexterity dimensions of organisational responsiveness, organisational proactiveness and organisational flexibility have positive and significant effect on service assurance ($Adj.R^2 = 0.945; F (3,435) = 2506.780, p < 0.05$). The study concluded that digital dexterity had positive and significant effect on service assurance. The study therefore recommends that digital dexterity should be emphasized, encouraged and practiced among employees of deposit money banks in Nigeria to improve service assurance.

Keywords: Digital dexterity, Organisational responsiveness, Organisational proactiveness, Organisational flexibility, Service assurance.

1. INTRODUCTION

The emergence of new technologies has placed demand on deposit money banks to apply necessary digital technology skills to remain competitive and achieve competitive advantage (Damayanti, Suyono & Alimudin, 2021). The banking industry offers distinguished services that facilitate the transfer of cash between individuals, corporate bodies, and countries and at the same time ensure that borrowers and savers do business in a well-structured manner (Olofin & Folawewo, 2016). The banking industry has seen some major financial digital innovations in the past decades, which have led to tremendous improvements in banking service assurance and
operations (Ahmed, Hizam & Sentosa, 2020). Despite the adoption and utilisation of digital technologies and technological advancements, changing customer expectations have led to a demand for new service models, with younger customers migrating to digital banking while others demand more consultative services (Bushara, Ahmed & Elzebair, 2019). Glitches in the areas of employees’ knowledge gap, low capacity, low technical skills and lack of dexterous employees in regards to digital technology adoption of banking services and regulatory bottlenecks, technology infrastructure issues and weak legal framework are no doubt obvious, as are users’ network failure as a major problem in service assurance of Nigerian banks (Ernest, David & Irene, 2020).

Globally, the banking industry is experiencing rapid market changes, such as new technology, economic uncertainty, competition, more demanding clients, and a changing climate, all of which present an unparalleled service assurance issues (Tijiang, Nurfadhilah & Putra, 2021). Foreign rivalry, competition from non-bank financial enterprises, and changing consumer expectations all have an impact on service assurance and client demand. In the United States of America, financial services shrank by 6.1% in 2021, reflecting the interruptions caused by COVID-19 pandemic-control efforts (Inter-American Development Bank, 2021). Also, banks in the United Kingdom and Asia respectively faced increased investor pressure, reflecting the ongoing poor service assurance of many banks as a result of shifts in investor risk attitudes and perceptions, which affected banks' funding costs and incentivized changes to their business models (International Trade Centre, 2021).

In Africa, in countries such as Algeria, Egypt, and Ghana, service quality challenges such as fluctuations in service delivery and customer perceived service assurance risks in deposit money banks have jeopardized customer confidence and loyalty (Sulaiman, Muhammad, Muhammad & Sabiu, 2021). Also, most deposit money banks in Kenya, Ethiopia, Botswana, Angola, South Africa, have had mixed fortunes in recent years due to related financial risk, which has severely impacted bank service assurance (Ozordi, Eluyela, Uwuigbe, Uwuigbe & Nwaze, 2020). In Nigeria, issues of variation in bank service assurance have been recognized as important factors negatively affecting customer’s confidence in recent times (Ndikubwimana & Berndt, 2016). Due to competitive pressures made possible by rapid technological development, globalisation and unpredictable consumer demands, many banks around the globe run the risk of failure and complete fold-up, particularly bank groups in developing countries like Nigeria which have negatively affected service assurance of deposit money banks (Ongowarsito, Djojo & Ferino, 2018).

The rising demand for banks to consistently augment the level of bank’s service assurance has become ever more imminent; as this has been explained to have a telling effect on the service assurance and entrench its market position and competitiveness. Based on the gaps and problems identified above, this study examined the effect of digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) on service assurance of the selected Quoted Deposit Money Banks in Nigeria.

2. LITERATURE REVIEW
This section focused on concepts of digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) and service assurance.
2.1 Digital Dexterity

Digital dexterity is a state where an organisation's employees are independent and hence are able, agile, adept, and effective to embrace any existing or emerging technology for better business outcomes (Ahmed, Hizam & Sentosa, 2020). Digital dexterity is the desire and ability of employees to embrace existing and emerging technologies to achieve better business outcomes (McKenzie, 2019). Digital Dexterity is a set of beliefs, mindset and behaviours that help employees deliver faster and more valuable outcomes from digital initiatives. Digital dexterity in an organisation explores the employees’ ability to perform certain tasks with technology and postulating enough ambition to use this ability in achieving success in business (Bonnet, Puram, Buvat & Khadikar, 2017). O'Sullivan, Slocombe, McKenzie and Salisbury (2019); Soule, Puram, Westerman and Bonnet (2016), stated that the characteristics of digital dexterity are; ability to adapt to time and change, development of innovative activities, ability to apply their existing assets, status, and capacity to explore new technologies and markets. Digital dexterity dimensions discussed are organisational responsiveness, organisational proactiveness and organisational flexibility.

Moradlou, Backhouse and Ranganathan (2017) opined that organisation responsiveness is the action taken in response to the relevant information/knowledge generated and subsequently filtered. It is related to performance. Responsiveness reflects speed and coordination with which actions are implemented and periodically reviewed, and also refers to evaluation of over- or under-fulfilling of goals and correcting accordingly and to interdepartmental cooperation and coordination (Didi-Quvane, Smuts & Matthee, 2019). Organisational responsiveness refers to ability of recognizing changes and quickly taking advantage and benefiting from them. Organisational Responsiveness is the ability of a firm to respond to customers’ needs in terms of quality, speed and flexibility and it is characterized by combined goals such as time, quality and flexibility (Asree, Zain & Razalli, 2018).

According to Bashir and Nadeem (2019), organisational proactiveness demonstrates an organisation’s quest for business opportunities and a strong emphasis on being among the early movers to employ innovativeness in its industry. Organisational proactiveness is a forward-thinking, opportunity-seeking mindset that entails providing new products or services ahead of the competition and acting in anticipation of future demand to generate change and affect the environment (John-Prosper, Emmanuel & Worlu, 2019). Bakker, Petrou, Op den Kamp and Tims (2020) added that proactive firms are most likely to act and respond first to threats coming from its business environment as well as making the first move towards seizing market opportunities. From the foregoing, it can be inferred that pro-activeness is an active response, a forward looking perspective and a business strategy capable of giving firms that adopts it an edge over its competitors (Sube, 2018). A proactive organisation has the ability to see opportunities where others see none. An organisation can be proactive by anticipating potential market needs and taking actions, in the form of delivering quality products, to meet the market needs (McKenzie, 2019).

Ma, Jin and Chang (2015) defined organisational flexibility as the firms' capability to manage the negative shocks in income, avoiding any financial crisis and getting benefits for the positive shocks for the easily available investment opportunities. Fahlenbrach, Rageth and Stulz (2021) defines organisational flexibility as organisational capability that allows for rapid adaptation to
change at a lower cost and shorter time, when facing the challenge of environmental uncertainty. Al-Slehat (2019) defined flexibility in business as the ability of a company to make whatever internal changes that is necessary to respond effectively to the changing outward environment of the organisation as quickly as possible.

2.2 Service Assurance
Service assurance refers to the level of knowledge displayed by a service provider when delivering its services and their ability to inspire trust and confidence (Marliyah, Ridwan & Sari, 2021). According to Paul, Mittal and Srivastav (2016), service assurance are employee’s knowledge, courtesy and their ability to convey trust and confidence to customers. Service assurance is the ability of a firm to inspire trust and confidence to customers through knowledge, politeness and trustworthiness of the employees (Liu & Wang, 2017). Service assurance refers the trust in the knowledge and proficiency in the service provider (MS, 2021). Service assurance is the ability of an organisation to display adequate knowledge, skills, and credibility and possess the ability to use banking expertise to inspire trust and confidence on the customers (Rumiyati & Syafarudin, 2021). Service assurance can be demonstrated by the ability of banker’s to create a sense of financial and transactional safety, by assuring customers that their needs are being taken into consideration (Stamenkov & Dika, 2015).

Service assurance is the ability of employees to encourage and instill trust and confidence of their service in customers (Omar, Salleh & Arshad, 2021). Service assurance is about more than staff just having good manners, it is about establishing respectful relationships with clients (Hassani, Shahin and Kheradmandnia, 2018). Nayak, Behera, Mishra, and Das (2017) defined service assurance as employee trustworthiness, confidentiality of information, courteous of employees as well as employees are knowledgeable and have the required skills. Service assurance requires that employees have knowledge about the services they provide so that they can offer the best services for each individual. According to Poku, Ansah and Lamptey (2014), service assurance includes the staff's reliability, the secrecy of transactions and personal information, the politeness of bank personnel, and the employees' knowledge and abilities on bank processes.

2.3 Research Conceptual Model
The study was conceptualized as shown in the diagram below:

![Research Model](image)

**Figure 1:** Research Model (2022)
The figure above presents the conceptual model based upon the review of literature and it shows the effect of digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) on service assurance.

2.4 Theoretical Review
This study's theoretical perspective is based on disruptive innovation theory. Bower and Christensen established the Disruptive Innovation Theory in 1995, and Clayton Magleby Christensen expanded on it in 1997. According to the disruptive innovation theory, industry leaders are displaced by new entrants when the new entrants introduce a disruptive innovation that the industry leaders are unable or unwilling to respond to. According to the theory, industry leaders would be ousted and new entrants will take over the market (Christensen, 1997). Disruptive innovation is a powerful means of broadening and developing new markets and providing new functionality, which, in turn, may disrupt existing market linkages (Christensen and Bower 1995; Christensen 1997; Danneels 2004; Govindarajan and Kopalle 2006). The disruptive innovation theory further assumes that understanding the customer’s needs more than the customer is critical in informing strategic product and service development. The disruptive innovation theory dictates that organisational responsiveness, organisational proactiveness and organisational flexibility are key in successful digital innovation pursuits.

Tellis critized the disruptive innovation theory, claiming that it cannot be utilized to make ex-ante predictions (Tellis, 2006). According to Tellis, disruptive innovation as a theory is incapable of predicting if a new product or business model will be disruptive in the future. The premise was that disruptive innovation was produced through retrospective research of corporate historical case studies. This appeared to be compelling because Christensen based his concepts and principles of disruptive innovation on historical corporate happenings. Danneels (2004) also questioned the term disruptive innovation, blaming Christensen for failing to set clear criteria for determining whether or not a technology is a disruptive innovation.

Notwithstanding the critics of the disruptive innovation theory, various scholars (Govindarajan & Kopalle, 2006; Sandstrom & Bjork, 2010; Corsi & Di Minin, 2014; Weeks, 2015; Kivimaa, Laakso, Lonkila & Kaljonoen, 2021; Ho, 2022) have supported and used disruptive innovation theory to make ex-ante predictions and thus, the assertion that it cannot make prediction is wrong and overstated. Thus, the disruptive innovation theory is relevant in that it explains the type of innovations banks adopt. Technological, marketing and management innovations are disruptive because they do away with traditional banking. The justification for this theory is based on its theoretical explanations as related to the variables in this research.

3. METHODOLOGY
This study adopted Survey research design was adopted. The population was 6,975,037 corporate customers and 4,873 employees of eight systemically important deposit money banks operating in Lagos, Nigeria. A sample size of 501 corporate customers and 464 bank employees was determined using Raosoft calculator. Convenience sampling technique was adopted for bank corporate customers, while stratified random sampling technique was adopted for bank employees. A validated questionnaire was used to collect data. Cronbach’s alpha reliability coefficients for the constructs ranged from 0.79 to 0.92. The response rate was 95.4%. SPSS version 27 was used to analyse the descriptive and inferential statistics. The hypotheses were
tested using multiple regression approaches. The principal factors investigated were measured on a six-point scale with anchors ranging from Very High (VH) to Very Low (VL), for the independent variables and dependent variable respectively. Multiple regression equation developed along the dependent and independent. Thus, the models can be represented as follows:

**Functional Model**

\[ Y = f(X) \]

\[ Y = \text{Dependent Variable} \]

\[ X = \text{Independent Variable} \]

\[ Y = \text{Service Assurance (SA)} \]

\[ X = \text{Digital Dexterity (DD)} \]

Where:

\[ Y = f(x_1, x_2, x_3) \]

\[ x_1 = \text{Organizational Responsiveness (ORE)} \]

\[ x_2 = \text{Organizational Proactiveness (OPR)} \]

\[ x_3 = \text{Organizational Flexibility (ORF)} \]

**Functional Relationship (Fn.)**

\[ SA = \beta_0 + \beta_1 \text{ORE} + \beta_2 \text{OPR} + \beta_3 \text{ORF} + \varepsilon_i \] \hspace{1cm} Eqn 1

\[ \beta_0 = \text{constant of the equation or constant term, } \beta_1 = \text{estimated Parameters, } \varepsilon_i = \text{Error or stochastic term and the apriori expectations are that with a p value of < 0.05; the hypotheses will be rejected.} \]

**4. Data Analysis, Results and Discussion**

A total of 464 copies of questionnaire were administered to employees of the selected quoted deposit money banks and 501 copies of questionnaire were administered to customers of the selected quoted deposit money banks amounted to a total of 965 copies. Out of 965 copies of questionnaire that were distributed, 921 were correctly filled and returned. This represents a response rate of 95.4%, which is deemed satisfactory for data analysis and interpretation. The Data from nine hundred and twenty-one (921) respondents were analysed. The results of the analysis and parameter estimates obtained are presented in Table 1

**4.1 Test of Hypotheses**

**H01:** Digital dexterity dimensions do not significantly affect service assurance of the selected Quoted Deposit Money Banks in Nigeria.

**Table 1: Results of multiple regression analysis of digital dexterity dimensions on service assurance of selected quoted Deposit Money Banks in Nigeria**

<table>
<thead>
<tr>
<th>N</th>
<th>Model</th>
<th>B</th>
<th>T</th>
<th>Sig.</th>
<th>ANOVA (Sig.)</th>
<th>R</th>
<th>Adjusted R²</th>
<th>F (3,435)</th>
</tr>
</thead>
<tbody>
<tr>
<td>921</td>
<td>(Constant)</td>
<td>.461</td>
<td>1.485</td>
<td>.138</td>
<td>.000</td>
<td>.972a</td>
<td>.945</td>
<td>2506.780</td>
</tr>
<tr>
<td></td>
<td>Organizational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Responsiveness</td>
<td>.978</td>
<td>64.936</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational</td>
<td>-.002</td>
<td>-.174</td>
<td>.862</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proactiveness</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational</td>
<td>.002</td>
<td>.111</td>
<td>.912</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flexibility</td>
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</tbody>
</table>

Predictors: (Constant), Organizational Flexibility, Organizational Proactiveness, Organizational Responsiveness

Dependent Variable: Service Assurance

Source: Researcher’s Field Survey, 2022
Table 1 shows the multiple regression analysis results of digital dexterity dimensions on service assurance of selected quoted deposit money banks in Nigeria. The results showed that organizational responsiveness ($\beta = 0.978, t = 64.936, p<0.05$) have positive and significant effect on service assurance, while organization flexibility ($\beta = 0.002, t = 0.111, p>0.05$) have positive but insignificant effect on service assurance of selected quoted deposit money banks in Nigeria. The multiple regression result shows that organizational pro-activeness ($\beta = -0.373, t = -0.174, p>0.05$) negative and insignificant effect on service assurance. The results of the analysis revealed that only one of the dimensions of digital dexterity (organizational responsiveness) have significant effect on service assurance of selected quoted deposit money banks in Nigeria. This implies that only organizational responsiveness is critical in determining the level of service assurance among selected quoted deposit money banks in Nigeria. The coefficient of multiple determination $\text{Adj. } R^2 = 0.945$ indicates that about 94.5% changes that occurs in the service assurance in the selected deposit money banks in Lagos, Nigeria is accounted for by the dimensions of digital dexterity while the remaining 5.5% changes that occurs are accounted for by other variables not captured in the model. The established multiple regression model is thus expressed as:

$$\text{SA} = 0.461 + 0.978 \text{ORE} - 0.002 \text{OPR} + 0.002 \text{ORF} + \epsilon_i$$ – Eqn 1 (Predictive Model)

$$\text{SA} = 0.461 + 0.978 \text{ORE} + \epsilon_i$$ – Eqn 1 (Prescriptive Model)

Where:
SA = Service Assurance
ORE = Organizational Responsiveness
OPR = Organizational Proactiveness
ORF = Organizational Flexibility

The regression model shows that holding digital dexterity dimensions to a constant zero, service assurance would be 0.461 meaning that without dexterity dimensions (organizational flexibility, organizational proactiveness, organizational responsiveness), service assurance would still be positive among the selected quoted deposit money banks in Nigeria. The results of the multiple linear regression analysis showed that from the predictive model only organizational responsiveness is significant and is prescribed for adequate attention by the selected quoted deposit money banks in Nigeria. From the prescriptive model, it is observed that when organizational responsiveness is improved by one unit, service assurance would positively increase by 0.978 units. This implies that an increase in organizational responsiveness would lead to an increase in service assurance of quoted deposit money banks in Nigeria. This variable was significant since the p-value of 0.000 was less than 0.05. The result disclosed an overall statistical significance which implies that digital dexterity dimensions with particular emphasis on organizational responsiveness is an important determinant of service assurance among the selected quoted deposit money banks in Nigeria. The result suggests that digital dexterity should be emphasized among selected quoted deposit money banks in Nigeria to improve service assurance. Therefore, the null hypothesis one ($H_01$) which states that Digital dexterity dimensions do not significantly affect service assurance of the selected Quoted Deposit Money Banks in Nigeria was rejected.

4.2 Discussions of Findings
The result of the multiple regression indicated that organizational responsiveness have significant effect on service assurance, organization flexibility have positive but insignificant
effect on service assurance, while organizational pro-activeness had negative and insignificant effect on service assurance. Based on this findings, it implies that only organizational responsiveness is critical in determining the level of service assurance among selected quoted deposit money banks in Nigeria. However, the overall result indicated that there was a collective positive significant effect of digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) on service assurance of the selected Quoted Deposit Money Banks in Nigeria was rejected.

The findings corroborated the studies on digital dexterity by Damayanti, Suyono, and Alimudin (2021) affirming that digital dexterity had positive and significant effect on service assurance. Mulazid, Mufraini, Saharuddin, and Wicaksono (2020) indicated that digital dexterity had positive and significant effect on service assurance. Furthermore, Ahmed, Hizam and Sentosa (2020) also corroborated that digital dexterity had positive and significant effect on service assurance. Conversely, Famiyeh, Asante-Darko and Kwarteng (2018) found no relationship between assurance, responsiveness, and service assurance. Chakrabarti, Trehan, and Makhija (2018) indicated that the responsiveness and tangibles dimensions significantly impact the user evaluation rating. Additionally, Bushara, Ahmed and Elzebair (2019) revealed that customers’ evaluation of the actual service quality was generally positive, however, it does not reach the level of their expectation. The study also indicated that customers give greater relative importance for sympathy dimension when evaluating the provided service assurance. Theoretically, this research findings fell in line with the disruptive innovation theory in that it supports the variables of digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) and service assurance. Thus, Disruptive Innovation Theory is deemed suitable in studying the effect of Digital Dexterity dimensions on service assurance of selected quoted Deposit Money Banks in Nigeria.

5. Conclusion and Recommendations
The study focused on the effect of digital dexterity dimensions on service assurance. Digital dexterity dimensions (organisational responsiveness, organisational proactiveness and organisational flexibility) had a substantial and beneficial influence on service assurance, according to the findings. Theoretically, the outcome of this study is in line with the disruptive innovation theory which is the baseline theories for this study. The disruptive innovation theory was adopted to guide this study variables because its perspectives are tied to the focus of the study and the variables that were investigated. The study recommends that top, middle, and lower-level management staff should maintain a high degree of digital dexterity qualities such as organisational responsiveness, organisational proactiveness and organisational flexibility thereby improving their overall service assurance to customers. Further study should be carried out using other banks not among the eight systemically important banks. This can also be a use case for other sectors of the economy like tourism, aviation, transportation, telecommunication or even the construction sector.

REFERENCES


