

DEMOGRAPHIC FACTORS AND CUSTOMERS' MOBILE BANKING SERVICES ADOPTION IN ENUGU METROPOLIS

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Abstract

This work was set out to measure the relationship between demographic factors and customers' mobile banking services adoption in Enugu metropolis. The specific objectives were to; examine the degree of relationship between age and customers' ease of use of mobile banking services in Enugu metropolis and ascertain the degree of relationship between income level and cost effectiveness of mobile banking services in Enugu metropolis. The study adopted a survey design. The population of the study was three thousand one hundred and eight three (3,183). The sample size of 349 was selected for the study using Freund and William's statistic formula. The study used simple random sampling technique and structured questionnaire was set up for selecting respondents. The findings revealed that age had a positive relationship with customers' ease of use of mobile banking services in Enugu metropolis ($r=.322$, $p = 0.000 < 0.05$), income level had a positive relationship with cost effectiveness of mobile banking services in Enugu Metropolis ($r=.360$, $p = 0.000 < 0.05$). Based on findings, the researcher concluded that demographic factors had positive relationship with customers' mobile banking services adoption in Enugu metropolis. It was therefore recommended that bank managers should consider customers' age, income level, customers' ease of use and the cost of innovation before introducing any mobile banking services facilities in any their market segment.

Keywords: Demographic factors, Customers', Mobile Banking Services, Age, customers' ease of use, income level and cost effectiveness.

INTRODUCTION

The world has become a global village and almost everything is being driven by technology. The growth of information technology (IT) in the world is becoming a crucial factor in the future development of businesses and industries around the world. The traditional method of banking is gradually paving the way for modern method of banking in the 21st century. The traditional banking has been in existence for many decades now and is the most common method of carrying out bank transactions in different countries, both developed and undeveloped (Luaran & Lin 2015). Over the past few years now, there has

been continuous development of information technology (IT) to help smoothen business operations around the world especially in the banking industry where the use of Automated Teller Machine (ATM) was developed to make withdrawal of money easier for customers, second, the development of internet banking was also introduced and third, the use of mobile banking. Both the developed and undeveloped countries have been benefiting from this new technology (Zwass, 2019).

Gray (2015) reports that in year 2004 alone the African continent was able to add up to fifteen million new mobile phone subscribers to its base, which is equivalent to the total number of telephone subscribers on the continent in 1996, which can be seen as growth. The Global System for Mobile Communications (GSM) is said to represent over 50% of the world mobile phone subscribers (Obe & Balogun 2017). There are currently 6.93 billion smart phone users in the world and the total number of mobile phone subscriptions has reached 220.7 million at the end of January 2024 in Nigeria (Zwass, 2019). Nigeria is, in many ways, a country in advance of its time in terms of mobile access. Even though being ranked as a low income country, over 50% of the population subscribes to mobile services and has outpaced all its peers in terms of network coverage (Boshoff, 2019).

Presently in Africa, mobile phones are the most widely used medium of communication (ITU, 2017) and is widely used by both the illiterates and educated people. This has enabled the mobile market industry in Africa to be the fastest growing in the world when compared with other continents (ITU, 2017). According to research, Nigeria is one of the leading market players for m-banking applications in Africa (UNCTAD, 2017), and is the fastest growing telecommunication country in Africa. The banking sector has evolved over time with the introduction of modern information technology which has lead to digitalisation in the sector. This was done in order to keep up with growing social trends, shifting customer needs, market trends and competition. Digitalisation of the banking industry worldwide has resulted in the shift from traditional banking to the use of alternate banking channels like merchant services, internet banking, agency services, Automated teller machines (ATMs) and the use of Mobile banking also referred to as m-banking (Sakala & Phiri, 2019). With rapid advance of Internet technologies and diffusion of mobile phones, mobile banking (hereafter m-banking) has gained attention as a viable option in delivering financial services (Sripalawat, Thongmak & Ngarmyarn, 2021).

Mobile banking was first introduced in the late 90s-early 2000s when the Internet began to gain popularity. A few select large banks like Wachovia and Wells Fargo started to offer simple services on their bank websites such as viewing checking account balances and finding the nearest ATM, yet they did not offer interactive services. Mobile banking was another step after the introduction of internet banking and it has taken banking into another different level. M-banking had made banking services more convenient, faster, given easy accessibility and reducing the stress of visiting the bank's branch thereby making transaction possible anywhere regardless of where the branch of the bank is located (Babalakin & Co 2022). M-banking provides financial transactions services such as balance check, fund transfer, and bill payment via a mobile device such as cell phone, and smart phone (Sripalawat, *et al*, 2021). The

merger and acquisition that took place in Nigeria in 2004 were 24 banks were consolidated and this brought a revolutionary land mark in the banking industry in Nigeria (Ahmed 2010).

This revolution brought about a drastic change in the way banking business and transactions were done and it led to the adoption of Information and Communication Technology (ICT) which was encouraged by the Central Bank of Nigeria (CBN) for the efficient and effectiveness of making banking transactions viable. Nigeria has been ranked a fast growing telecommunication, users and with a fast growing population figure of about 200 million, leading the mobile commerce usage in Africa and largest subscriber of mobile user in Africa (Sripalawat, Thongmak & Ngarmyarn, 2021). Today customers' interactions with their banks are done through multiple touch points like branches, ATMs, telephone banking, internet banking and m-banking (Hoehle, & Huff, 2012). Based on this, the study seeks to investigate relationship between demographic factors and customers' mobile banking services adoption in Enugu metropolis.

Statement of the Problem

It is believed that consumers intention to accept Internet banking rests on a combination of factors including website new features, confidence, ease of use, lifestyle functionality, online customer service, demographic characteristics like race, age, education, earnings and internet use knowledge. Statistics showed that virtually all commercial banks have invested in mobile banking systems (Central Bank of Nigeria, 2015). Banks invest in technologies with expectation to reduce operational costs and achieve improved service delivery (Siyanbola, 2013).

Despite m-banking services being available in Zambia, and offered by commercial Banks to their retail clients in an effort to transition from traditional banking to offering digital financial services, potential users are still not adopting and using these services. This has negatively affected these potential users because using m-banking services makes performing financial transactions and accessing financial information faster, more convenient, easy to use, ease of use, cost effective and cheaper than traditional banking.

Therefore, it is necessary to find out the degree to which customers have adopted mobile banking. Moreover, a lot of empirical research on some factors affecting customers' to adopt mobile banking services has been carried out in behavioral attributes such as; complexity, compatibility, relative advantage perceived security and observability, the result revealed a mixed findings, as such, some reveal a positive relationship (Mukhlis 2014; Luarn and Lin (2015), others revealed a negative relationship (Yeung 2015; Tuj Johara, 2014). However, little has been done on the demographic factors that affect customers' migration in using mobile banking services in Enugu metropolis. Against this backdrop, this study therefore seeks to examine how demographic factors relate with customers' mobile banking services adoption in Enugu metropolis.

The broad objective of the study was to examine the relationship between demographic factors and customers' mobile banking services adoption in Enugu metropolis. Specific objectives were to;

- i. Examine the degree of relationship between age and customers' ease of use of mobile banking services in Enugu metropolis.
- ii. Ascertain the degree of relationship between income level and cost effectiveness by customers' of mobile banking services in Enugu metropolis.

The scope of the study was restricted to customers' who visit main branch of the selected banks in Enugu Metropolis namely First Bank Okpara Avenue, Zenith Bank Old Park and UBA Okpara Avenue. The dependent and independent variables were decomposed into various components. Dependent variable known as customers' mobile banking services adoption was represented by customers' ease of use and customers' cost effectiveness while independent variable were demographic factors represented by age and income level.

Conceptual Review

Demographic Factors

Demographic factors such as age, gender, marital status, level of income, occupation, family background, and residence have in one way or the other influenced how customers' use mobile banking services. Banks have been making frantic efforts towards providing relevant banking technology resources to satisfy diverse information needs of the users (Okuonghae & Osedumme, 2019).

Age

Literature suggests that there is a strong relationship between age and the acceptance of new technologies (Harrison *et al* 2019). Older customers are found to have negative attitudes towards technology whilst the younger adults are seen to be more interested in using technology and innovation. Age differences have been identified, suggesting that people's needs and preferences follow a life-cycle path. Age is argued to be negatively related to technology use and usefulness perceptions, and positively related to perceived difficulty (Venkatesh & Morris, 2022). According to Lemaitre (2020) young individuals between 18 and 35 years old will be the future customers of direct distribution channels, as these people tend to be more open towards newer technologies.

Income and Education Levels

Dickson, (2020) suggests that income and education levels are especially relevant in explaining the use of Internet services and other technological devices For instance, the adoption of home Internet services involves several costs, both in terms of the financial resources and skills needed for the use of new technologies. Moreover, a study by Trocchia and Janda (2020) revealed that income and education tend to be positively related to innovation approval. Older individuals between 26 and 45 years of age are overrepresented in categories of higher income, higher occupational positions and higher educational qualifications (Venkatesh and Morris, 2022). Rogers (2023) showed that demographic attributes play an important role in predicting technology adoption and that economic status (income) is highly correlated to initial adoption. Rogers, in his Diffusion of Innovation (DOI) theory proposes that new technologies are

initially adopted by those who have more resources. Choudrie and Dwivedi (2015) confirmed that the economic status for individuals influences their ability to own and then use a technology.

Mobile Banking Service Adoption

Mukhlis (2014), opines that mobile banking is the newest among e-banking platforms. It refers to the technological method that permits customers to carry out different financial transactions with the help of mobile devices (Oladejo & Yinus, 2013). The term mobile banking can be used in a broad sense to mean a financial transaction in technology while adoption drivers remain the focus of most researchers with an overload of mobile banking adoption models (Shaikh & Karjaluoto, 2015, Luarn & Lin, 2015; Riquelme & Rios, 2010, Laukkanen & Lauronen, 2015).

It is a system (mobile banking) that uses technological innovative resources especially mobile phones that are support effect of financial transactions (Shih & Fang, 2022). Mobile banking is a facilitator of banking transactions including a balance inquiry, payment of bill, funds transfer through a mobile phone (Shih & Fang, 2022). It is the banking services offered to customers through mobile phones, allowing them to personally access bank accounts and perform various banking related transactions from anywhere and time in the world (Luarn & Lin, 2015). It is simply bank transactions conducted with mobile phones or tablets. Put differently, it can be referred to as the availability of banking services to customers on their mobile phones. This definition is in line with Olalekan (2013) that defines mobile banking as “provisions of financial services using cellular phones.

Ease of Use

Davis (2015) defines Perceived ease of use as the degree to which an individual believes that using a particular system will require more efforts. It is believed that a customer will adopt an innovation or a particular system if it is easy to learn and use. An innovation perceived to be difficult to use by customers will be less adopted (Rogers, 2019). According to Cooper and Zmud (2017), ease of use of an innovation is one the most important characteristics for adoption of an innovation. Adoption of mobile banking is more likely to occur if the process of usage is easy for customers.

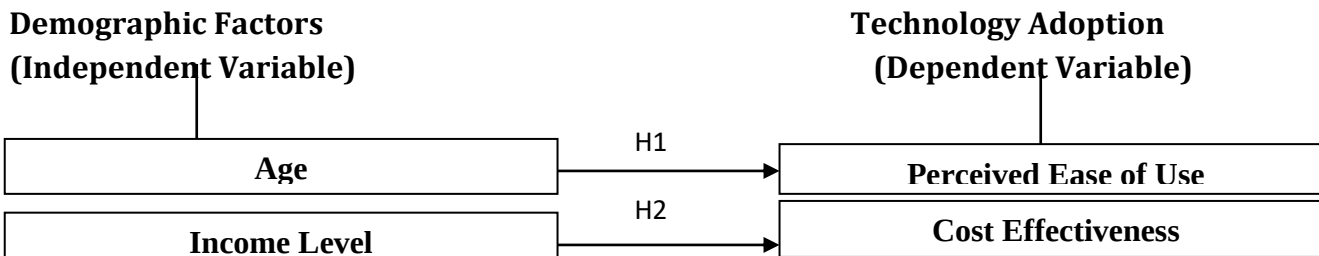
Cost Effectiveness

Cost effective believe shows that the cost of using mobile banking facilities could influence the intention to use mobile banking service (Luarn & Lin 2015). Innovation is always associated with many costs such as operation cost, utilisation cost, investment cost, etc according to Rothwell and Gardiner (2018). The cost of using an innovation is very important especially when it comes to the use of mobile device in mobile banking and the price of using such technology should be affordable by the customers (Min *et al.*, 2018). By lowering the cost of using an innovation such as mobile banking, customers who are price conscious will be more likely to adopt the innovation.

Conceptual Framework

Conceptual framework of this study is presented in figure 2.1 below. The model was designed to show relationship between demographic factors and customers' mobile banking services adoption.

Figure 2.3: Model of demographic factors and customers' mobile banking services adoption.



Source: Adapted from Beatriz, S.B, José, G.P.B and Marco, A.C.B (2020). The influence of demographic characteristics of users on their decision to adopt mobile banking.

Theoretical Framework

Innovation Diffusion Theory was a renowned theory suitable for predicting the adoption of mobile banking. Innovation Diffusion Theory as was propounded by Rogers (2003), considered innovation generally as the main determinant of business success and successful marketing. In order for a firm to be triumphant in bringing innovation to the market, the potential customers must have a clear understanding of both the process and the factors that influence the customers to adopt the innovation. Also, factors known as features of innovation are relative advantage, compatibility, and complexity. Rogers (2003), innovation combined with relative advantage, less complexity and compatibility can be rapidly adopted by an individual.

Rogers (2003) pinpoints innovation diffusion in four stages; process, invention, diffusion He specifically defines adoption process as “a way in which an individual or other decision-making units moves from first knowledge of innovation to form an attitude towards the innovation, to a decision to adopt or reject, the execution of the new idea and the confirmation of the decision. In all, this process is made up of several actions and decisions over time whereby an individual considers a new idea and makes a decision either to integrate the new idea into his normal routine or not.

Empirical Review

Sánchez-Mena, Martí-Parreno and Aldas-Manzano (2017) analyzed factors affecting teachers' behavioural intention to use educational video games in their courses using a Technology Acceptance Model (TAM) approach. Results suggest that perceived usefulness influences in a direct and positive way teachers' intention to use educational video games. Results also suggest that perceived ease of use indirectly influence intentions through perceived usefulness. Age was found to moderate the effect of teachers' perceived ease of use on perceived usefulness of EVGs.

Darmesh, Kevin and Siti (2017) examined effects of age on consumers' intention to use mobile banking in Nigeria. Therefore, there was need to understand the effects of age on consumers' intention to use mobile banking services. Additionally, stratified sampling method was adopted to collect data in Klang Valley using questionnaires. A simple linear regression analysis was used to quantify the findings. The results revealed that there is no association between Age and Intention to Use Mobile Banking. This helps to

clear the air on the inconsistent findings of previous of researches while providing room for improvement.

Sadia, Maimuna and Rozina (2017) studied factors influencing adoption and usage of mobile banking in Bangladesh. It has also revealed that perception to security, cost and convenience, and complexity in using mobile banking service influences variations in mobile banking adoption.

Serkalem, Mekuanint and Tadele (2018) studied factors affecting the adoption of mobile banking in Ethiopia. The aim of this study was to examine factors that affect the adoption of mobile banking in Ethiopian Banking industry. The major finding of the study reveals, technological and organizational factors from the institutional perspective and customers' experience and voluntariness of use from customers' perspective had strong and positive relation with adoption of m-banking.

Sakala and Phiri (2019) examined factors affecting adoption and use of mobile banking services in Zambia. The results of study were that there is a significant positive relationship between perceived ease of use, perceived usefulness, user attitude, external variables, user intention and system use.

James and Kelefa (2019) studied perceived usefulness and ease of use of Web 2.0 tools in university teaching and learning in Tanzania. The findings further inform that perceived usefulness and perceived ease of use of Web 2.0 technologies are important predictors of the adoption of these tools.

Owolabi, Alabi, Amjad and Emmanuel (2019) investigated effects of demographic factors on customers' mobile banking services adoption in Nigeria. The study showed that demographic factors such as age, gender, income level, occupational level, except educational status do influence the adoption of mobile banking services in Benin City.

Beatriz, José and Marco (2020) studied the influence of demographic characteristics of users on their decision to adopt mobile banking in Brazil. This study evaluated how the demographic characteristics (gender, age, income and education) of mobile application users influence their perceptions of the five constructs (relative advantage, complexity, compatibility, possibility of experimentation and visibility) listed by Rogers (1995) as determinants for adoption of innovations.

Dhanya and Velmurugan (2021) examined influence of demographic variables on customer satisfaction on e-banking in public sector banks in Malaysia. The aim of this our research was to examine the position of chosen demographic factors on measure of service quality of Internet banking, customer value, satisfaction and trust. The research findings showed that increased education and higher earning clients who are using Internet banking for much of their financial requirements and who have been using it for extended periods of time appear to have much more positive views and perceptions towards Internet banking services.

Sonu and Raipur (2023) conducted a study on role of demographic factors as a moderator in mobile banking adoption in Jampali. The findings of the study showed that age, education, gender, occupation, and income level had significant impact on mobile banking adoption, whereas gender had little effect on mobile banking adoption.

Gap in Empirical Review

Most recent literature on the demographic factors have recognized the tremendous relationship on customers' mobile banking services which have been recorded in recent times. But this scenario revealed that demographic factors indicators have not been extensively and empirically investigated by other researchers. Therefore, a study on the demographic factors and customers' mobile banking services adoption in Enugu Metropolis context was crucial in order to approve or disapprove the varying viewpoints on this study area which would lead to the expansion of the body of knowledge in this study area. This was the gap the study filled.

METHODOLOGY

The study's design for this research was descriptive. Descriptive research design was applied to describe the key factors that affect the adoption of m-banking in commercial banks. Quantitative analysis approach also was applied in this research work so as to address the research objectives and to test the research hypotheses. Primary data were collected from selected banks (customers) using questionnaire as instrument for data collection.

The target population for this study included all customers of selected banks which include First Bank Plc, Zenith Bank Plc and UBA Bank Plc in Enugu metropolis. The customers formed the target population of this study. Thus those customers who had reached 18 years and above and subscribed to various m-banking platforms were considered as the population for the study (Igwenagu, 2016). The total customer bases of selected banks are as shown in table 3.1 below.

Table 3.1 Description of Population

Banks	Customers	Total
First Bank Okpara Avenue Enugu	1, 545	1, 545
Zenith Bank Old Park Branch	921	921
UBA Bank Station Road Okpara Avenue	717	717
Total	3183	3183

Source: Banks Internal Reports, 2024

The total population of the study was three thousand one hundred and eighty three (3,183). To determine the sample size, the study used Freund and William's statistic formula as quoted by (Uzoagulu 2011).

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

Where n = Sample Size

N = The population

p = Probability of success/proportion

q = Probability of failure/proportion

Z = Standard normal deviate

e = Limit of tolerable error (or level of significance)

N = 3,183

p = .5

q = (1 - .5) = .5

Z at 95 percent = 1.96

e = 5 percent or 0.05.

$$n = \frac{(1.96)^2 \times 3,183 \times .5 \times .5}{3,183(0.05)^2 + (1.96)^2 \times .5 \times .5}$$
$$\frac{12,477.36 \times 0.25}{7.9575 + 3.92 \times 0.25}$$
$$\frac{3,119.34}{8.9375}$$

n = **349 Sample Size**

To select the sample for the study, the study used convenience sampling technique, it give all the respondents within the study areas to be selected. To further distribute the sample to the three banks under study,

Bowley's (1976) proportional allocation formula was used.

$$nh = \frac{n(Nh)}{N}$$

Where:

Nh = Group population from each stratum

n = overall sample size

N = the overall population

nh = sample size from each stratum, in this case each branches.

Table 3.2: Proportionate Allocation of Questionnaire to Banks Customers in Enugu Metropolis.

Thus:

S/N	Banks	Address	Customers
1	First Bank	Okpara Avenue	$\frac{1545}{3183} \times \frac{349}{1} = 169$
2	Zenith Bank	Old Park Enugu North	$\frac{921}{3183} \times \frac{349}{1} = 101$
3	UBA Bank	Station Road Okpara Avenue	$\frac{717}{3183} \times \frac{349}{1} = 79$
	Total		349

Source: Field Survey, 2024

The instrument for data collection was structured questionnaire. The questionnaire was divided in two sections, section A was designed to gather the bio-data of the respondents such as gender, educational

qualification, age and work experience. While section B was designed to gather data relating to the independent and the dependent variables. The questions were designed in a 5-likert scale as follows: Strongly Agree [SA] – 5 points, Agree [A] – 4 points, Undecided [UN] – 3 Points, Disagree [D] – 2 points and strongly Disagree [SD] – 1 point.

The content of the instrument was validated by different experts including, researcher, supervisor and other experts in the Faculty of Management Sciences. After revising the questionnaire items and summarizing the expert's suggestions, modifications were made in wording and content. Some items were added but some others were dropped. The reliability of the instrument was determined through a test of internal consistency of the questionnaire items in each of the constructs. The internal consistency was calculated using a Cronbach Alpha coefficient, which measures the interrelationship between items in the questionnaire (Cortina, 1993). The Cronbach alpha reliability obtained for overall scale was (0.85 and it is good in all scales and satisfy the purpose of the study (Boshoff, 2019).

After data collection, the compiled data was refined, entered and analyzed using the Statistical Package for Social Science program (computer software SPSS V.25) for descriptive and inferential statistics. Frequencies were used to present the distribution of study variables. Means were computed for continuous numeric variables. The study used correlation analysis to test formulated hypothesis. Formula for spearman rank order correlation analysis:

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{[n (\sum x^2) - (\sum x)^2][n (\sum y^2) - (\sum y)^2]}}$$

Coefficient of determination r^2

Formula for regression

$$Y_i = f(X_1 \beta) + e_i$$

$$X = \text{dependent variable}$$

$$F = \text{function}$$

$$X_1 = \text{independent variable}$$

$$\beta = \text{coefficient}$$

$$e_i = \text{error terms}$$

Analysis of Research Questions and Test of Hypotheses

Research Question 1: What is the degree of relationship between age and customers' ease of use of mobile banking services in Enugu metropolis?

Table 4.1: Relationship between age and customers' ease of use of mobile banking services in Enugu Metropolis.

Options (N =346)	SA (Freq %)	A (Freq %)	UD (Freq %)	D (Freq %)	SD (Freq %)
Our banking services are easier to use by customers no matter the age.	205 (59.25)	70 (20.23)	10 (2.89)	50 (14.45)	11 (3.18)
Age determine ideal of using our bank services.	150 (43.35)	100 (28.9)	20 (5.8)	50 (14.45)	26 (7.51)
Age increase efficient and effective usage of bank services.	180 (52.0)	110 (31.79)	5 (1.45)	31 (8.9)	20 (5.8)

Source: Field Survey, 2024

In table 4.1, 205(59.25%) of respondents strongly agreed, 70(20.23%) of respondents agreed, 10(2.89%) of respondents were undecided, 50(14.45%) of respondents disagreed and 11(3.18%) of respondents strongly disagreed. 150(43.35%) of respondents strongly agreed, 100(28.9%) of respondents agreed, 20(5.8%) of respondents were undecided, 50(14.45%) of respondents disagreed and 26(7.51%) of respondents strongly disagree. 180(52.0%) of respondents strongly agreed, 110(31.79%) of respondents agreed, 5(1.45%) of respondents were undecided, 31(8.9%) of respondents disagreed and 20(5.8%) of respondents strongly disagreed. Therefore, analytical evidence between strongly agreed and agreed confirmed that there is relationship between age and ease of use of mobile banking services in Enugu metropolis.

Tests of Hypothesis One

H₀₁: Age does not have positive relationship with customers' ease of use of mobile banking services in Enugu metropolis.

H_{a1}: Age has positive relationship with customers' ease of use of mobile banking services in Enugu metropolis.

Table 4.2: Analysis of Correlation

Correlations			
		Age	Customers' Ease of Use
Age	Pearson Correlation	1	.321**
	Sig. (2-tailed)		.000
	N	346	346
Customers' Ease of Use	Pearson Correlation	.322**	1
	Sig. (2-tailed)	.000	
	N	346	346

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Extracted from SPSS Version 0.25

From the correlation result shown above, there was bivariate relationship between age and ease of use of mobile banking services in Enugu Metropolis with a probability value of .000 and $r = .322$ which indicated that there was positive relationship between age and customers' ease of use of mobile banking services in Enugu Metropolis.

Table 4.3: Relationship between income level and cost effectiveness of mobile banking services in Enugu Metropolis.

Options (N =346)	SA (Freq %)	A (Freq %)	UD (Freq %)	D (Freq %)	SD (Freq %)
Customers are free to use any bank mobile services available for them.	200 (57.8)	75 (21.68)	10 (2.89)	51 (14.73)	20 (5.78)
Our bank encourages customers hard working to learn most of bank services.	170 (49.13)	80 (23.12)	16 (4.62)	50 (14.45)	30 (8.67)
Customers participate in bank services decision-making.	80 (23.12)	10 (2.89)	36 (10.40)	100 (28.9)	120 (34.68)

Source: Field Survey, 2024

In table 4.5, 200(57.8%) of respondents strongly agreed, 75(21.68%) of respondents agreed, 10(2.89%) of respondents were undecided, 51(14.73%) of respondents disagreed and 20(5.78%) of respondents strongly agreed. 170(49.13%) of respondents strongly agreed, 80(23.12%) of respondents agreed, 16(4.62%) of respondents were undecided, 50(14.45%) of respondents disagreed and 30(8.67%) of respondents strongly disagreed. 80(23.12%) of respondents strongly agreed, 10(2.89%) of respondents agreed, 36(10.40%) of respondents were undecided, 100(28.9%) of respondents disagreed and 120(34.68%) of respondents strongly disagreed. Therefore, analytical evidence between strongly disagreed and disagreed confirmed that income level had positive relationship with cost effective of mobile banking services in Enugu Metropolis.

Tests for Hypothesis Two

H₀₂: Income level does not have positive relationship with cost effectiveness of mobile banking services in Enugu metropolis.

H_{a2}: Income level has positive relationship with cost effectiveness of mobile banking services in Enugu metropolis.

Table 4.4: Analysis of Correlation

Correlations			
		Income Level	Cost Effectiveness
Income Level	Pearson Correlation	1	.360**
	Sig. (2-tailed)		.000
	N	346	346
Cost Effectiveness	Pearson Correlation	.360**	1
	Sig. (2-tailed)	.000	
	N	346	346
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Extracted from SPSS Version 0.25

From the correlation result shown above, there was bivariate relationship between income level and cost effectiveness of mobile banking services in Enugu metropolis with a probability value of .000 and $r = .360$ which indicated that there was a positive relationship between income level and cost effectiveness of mobile banking services in Enugu metropolis.

Discussion of Findings

Hypothesis One: Age does not have positive relationship with ease of use of mobile banking services in Enugu metropolis with a probability value of .000 and $r = .322$ which indicates that there was positive relationship. According to Darmesh, Kevin and Siti (2017) examined effects of age on consumers' intention to use mobile banking in Nigeria. A simple linear regression analysis was used to quantify the findings. The results revealed that there was no association between Age and Intention to Use Mobile

Banking. This helps to clear the air on the inconsistent findings of previous researches while providing room for improvement.

Hypothesis Two: Income level does not have positive relationship with cost effectiveness of mobile banking services in Enugu metropolis with a probability value of .000 and $r = .360$ which indicates that there was a positive relationship. In similar way according to Owolabi, Alabi, Amjad and Emmanuel (2019) investigated effects of demographic factors on customers' mobile banking services adoption in Nigeria. Demographically, the study examined the factors that affect customers to adopt mobile banking services in Benin City. The study showed that demographic factors such as age gender, income level, occupational level, except educational status, do influence the adoption of mobile banking services in Benin City.

Summary of Findings

After data analysis, findings show that:

1. Age had a positive relationship with ease of use of mobile banking services in Enugu metropolis ($r=.322$, $pv = 0.000 < 0.05$).
2. Income level had a positive relationship with the cost effectiveness of mobile banking services in Enugu Metropolis ($r=.360$, $pv = 0.000 < 0.05$).

Conclusion

Based on the findings of this study, we conclude that demographic factors had positive relationship with customers' mobile banking services adoption in Enugu metropolis. Therefore, the study also concludes that age and income level had positive relationship with the customers' ease of use and cost effectiveness of mobile banking services in Enugu metropolis.

Recommendations

Based on the findings, we recommend that bank managers should consider customers' age, income level, ease of use and the cost of innovation before introducing any mobile banking services in order to carry them along.

Contribution to Knowledge

This research work has been able to contribute to the existing literature on demographic factors and customers' mobile banking services in Enugu metropolis and has also, bridged the gap which exists between developed countries and developing countries with particular reference to Nigeria. Equally, this research has been able to identify the factors that influence common relationship between demographic factors and customers' mobile banking services in Enugu metropolis.

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