

IMPACT OF AGENT BANKING ON FINANCIAL INCLUSION IN NIGERIA

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Abstract

Financial inclusion is a key to the survival of any nation economy, is a process in which all individuals have easy access to formal financial products and services (World Bank 2022). Drawing from diffusion of innovation theory and technology acceptance model theories. The study examines the perception of financial included persons regarding the impact of the relationship between agent banking and financial inclusion using survey research approach. Data were source from 584 financially included persons in Nigeria. The PLS-SEM analysis revealed that, agent banking significantly impact accessibility, usability, and quality of financial products and services in Nigeria. It is recommended that, the financial included persons in Nigeria should be informed, educate about the digital financial products and services, and its economic benefit, so as to improve its usability.

JEL classification: G28, O16

Keywords: Financial inclusion, Agent banking, FINTECH Nigeria

1.1 Introduction

Worldwide, the success of any nation economy is tied to the growth of financial inclusion. It is globally claimed that, Financial inclusion has a very good impact on financial stability by lowering risk, and a significant rise in the amount of small savers via super financial inclusion system would uplift both the amount and stability of the deposit base of banks which would lower banks' over reliance on non-core financing, and turned to be more elastic during banking crisis, thus increasing banking system stability (Peterson 2025). However, according to Xi & Wang, (2023), Financial Inclusion involves not only access to financial services but also their effective use, thereby promoting economic stability and growth. However, World Bank (2022) sees financial inclusion as the process in which all individuals and investors have easy access to formal financial services. The Bank also viewed it as the efforts by relevant authorities to make financial services and products accessible, available, easily, cheaply and affordably to all individual populace without any form of bias.

Agent banking is a model of financial service delivery that includes the use of non bank entities, such as local retail outlets or individual agents, to provide banking products and services on behalf of licensed financial institution (Jabir & Saminu (2024). These agents act as intermediaries between banks and customers, offering basic banking products and services such as deposits, withdrawals, fund transfers, loan disbursements, and bill payments (Moses Blessing & Adam Rajuroy (2025). However, Agent banking reduces the need for physical bank branches, making financial products and services more accessible in rural and remote areas (Moses Blessing & Adam Rajuroy (2025). Agency banking is a framework of financial service delivery that involves the use of non-bank entities, such as local retail outlets or individual agents, to provide banking products and services on behalf of licensed financial institution (Jabir & Saminu (2024). Besides, agent banking is a branchless banking framework that allows financial institutions to extend their services through authorized agents with the help of

FINTECH products and services typically used by retail businesses or mobile money operators (Moses Blessing & Adam Rajuroy (2025).

Nigeria's financial outlook is now significantly impacted by FINTECH. Nigeria is a place to 28% of all the FINTECH companies in Africa, according to the European Investment Bank (EIB), and is a prime pivot in Africa for venture capital funding. Between 2020 and H1 2024, Nigeria attracted the highest share of fintech investments in African FINTECH companies, securing roughly 36% of total FINTECH equity funding (Boston Consulting group 2023).

Despite the sector's impressive growth their is low adoption of digital payment solutions in Nigeria (Proshare 2025).It is in light of the above that, this research study is set out to investigate the impact of Agent banking(AB) on financial inclusion Nigeria. In order to achieve the objectives of this study the following hypothesis were proposed;

H01: Agent bankinghas no significant impact on accessibility of financial products and services in Nigeria.

H02: Agent banking has no significant impact on usability of financial products and services in Nigeria.

H03: Agent banking has no significant impact on quality of financial products and services in Nigeria.

2.1 Literature Review

Agent banking (AB)

Agent banking (AB) refers to the provision of financial products and services to customers by a third party agent on behalf of licensed deposit-taking financial institutions (Principal) (CBN 2025). However, Okafor (2022) defines agent banking as a way to supply consumers with specific financial products and services by using third party agents, who are often not banks but are chosen by licensed financial institutions to handle that business on their behalf. According to Buchi (2022), agent banking is a type of financial transaction that includes banks hiring intermediaries to supply various standard banking products and services to their customers. Such as money transfers, opening an account, and payment bi, money deposit and withdrawal, among others.

In agency banking, Buchi (2022) established three forms of agents (third-party). The first is the super-agent who has the power to hire additional agents (sub-agents) and oversee their management inside a network. To be a super-agent, a company must first be incorporated by the Corporate Affairs Commission, operate for at least a year, then submit an application for a license as a Super-Agent Banking Organization to the Central Bank of Nigeria (CBN). The second category is a sole agent (third-party) who is a representative and has a direct agency arrangement with financial institutions but is not authorised to appoint additional agents Buchi (2022).

The agent (third-party) bank must follow crucial banking rules, such as the anti- money laundering legislation and the Know Your Customer (KYC) standards, in carrying out its role. The third rank is the sub-agents who report to a super-agent, this agents are seen everywhere with their POS machines in their kiosks or on the sides of the road under umbrellas those are the individuals that are commonly referred to as POS machine operators or POS business owners Buchi (2022).Besides,in different business locationbusiness owners set POSmachines in their store to increase the rate of desire purchases of good and services for customers within or outside (Hayes, Estevez, & Jasperson, 2020).

The dimensions that form agent banking are: Point of Sale, Automated teller Machine and Debit card.

Point of Sale (POS): POS is also known as POS terminal is used for instant payment for goods and services purchased, as it is easy to operate, and has multi-functional capabilities (Mohammed, Ibrahim & Muritala, 2022). They are considered by Awoniyi (2022) as a virtual replacement for cash transactions.

Automated Teller Machine (ATM): Automated Teller Machines (ATMs) are electronic banking outlets that allow customers to complete basic transactions without the need for a third-party such as cash balance inquiries, withdrawals, fund transfers, and deposits, providing accessibility to banking services (Anifowose & Ekperiware (2022).

Debit Cards: A debit card or card service is a plastic card that facilitate cashless payments at any point in time, it facilitate 24x7 access to cash by using POS machine, ATMs machines and purchases goods at merchant outlets, prompt settlement of bills payment, and integrated loyalty benefits (Cecilia and Kiran 2024). Moreover, Debit cards are one of the widely, most commonly used card techniques for bills payments, withdrawing cash, transferring funds, and having easy access to other financial products and services conveniently (Cecilia and Kiran 2024).

Financial Inclusion

Financial inclusion: is the provision of availability and accessibility of financial products and services to the populace which influences economic growth and development, reduce inequality and poverty rate in the country (Odumusor et al., 2024). However, Chude and Chude (2022) suggested that provision of affordable financial products and services to all individuals in the society will boost small and medium scale business enterprise and increase households' welfare. This can be dimension to implementation of financial inclusion strategies like increase in number of bank branches, ATMs, mobile money and agent banking in different parts of the country (Odumusor *et al* 2024, and FSS, 2020). This accessibility to financial products and services would boost financial soundness and security of all individuals and reduce income inequality in the society which would automatically boost inclusive economic growth and development.

The dimensions that form financial inclusion are: Accessibility, Usability and Quality of financial products and services:

Accessibility: Access to financial services is the availability and reach of financial products and services to the individual populace, regardless of location or economic status. It ensures accessibility through financial branches, ATMs, agents, mobile money, and other digital platforms, making products and services easily obtainable within a reasonable distance (IMF 2024). Moreover, accessibility is the level of ease accessibility to the financial technology to access financial products and services by economic agents that is, the individuals or households, businesses, and governments (Hasan *et al* 2023).

Usability: Usage of financial services refers to how businesses firms and individuals use financial products and services to effectively manage their needs, it includes Transactions and payments, Deposits and savings, Credit, and Insurance through the use of mobile phones or the internet (IMF 2024). For instance, the amount of commercial bank account used in any

financial dealings such as remittance or payment, loan or credit, insurance service, pension, commercial bank saving account etc. for at least once in 90 days.

Quality: Quality of financial services is the provision of financial products and services that meet consumer lifestyle in a reliable, timely, and satisfactory manner. It stresses the importance of Reliability, Responsiveness, and Customization (IMF 2024). Additionally, it refers to the applicability of financial service or product to the needs wants of the individuals' users Serrao et al (2012) and Hannigand Jansen (2010).

Review of Empirical Studies

David et al. (2022) conducted a study in Benue State to investigate the effects of agent banking on the reduction of poverty in the state. They used the Foster, Greer, Thornbecke, and other indices to analyse the data. They also utilised a logit regression model to determine if the presence of an agent bank can help improve the state's poverty levels, and more. The study found that agent banking could help lower the poverty rate in Benue State. This is a traditionally agricultural state that has a high proportion of people who are impoverished. Only 11 out of 23 local governments in the state have access to banks, and agent banking could help improve financial literacy and increase financial inclusion.

Therefore, the identified gap in this research is that, the research talks about reduction of poverty in the state without considering financial Inclusion in the first thought.

Kalyegira (2020) investigated the relationship between agency banking and financial inclusion, focusing on how agency banking had influenced the financial behaviors of the unbanked population. The study found that agency banking had facilitated greater financial inclusion by providing a cost-effective and convenient way for people to access financial services. The research emphasized that the proximity of agents, coupled with lower transaction fees, encouraged more people to engage in the formal financial system. However, the study also noted that there were concerns about the security and reliability of agency banking services, which could hinder its broader adoption.

Therefore, the identified gap in this research is that, the research talks about the behaviour of financial excluded populace without making reference to financial Included person's in the first thought.

Mbogo and Muturi (2021) examined the impact of agency banking on financial inclusion in Tanzania. Their study showed that agency banking contributed significantly to increasing the number of people with access to financial services, particularly in regions where traditional banks were not present. The research indicated that agency banking had the potential to drive financial inclusion by providing a platform for savings, loans, and other financial services. The study also highlighted the importance of regulatory frameworks in ensuring the success of agency banking initiatives.

Therefore, the identified gap in this research is that, the research focused on region without considering the country as a whole in the first thought.

Agent banking and the Nigerian economy were empirically examined by Emuveyan and Emuveyan & Ekwunife (2021) with the Central Bank of Nigeria's (CBN) Statistical Bulletin for the years 2009 to 2019 serving as the study's data source. To evaluate the proposed hypotheses, descriptive statistics and ordinary least squares (OLS) were used. The study came to the conclusion that agent banking significantly affects the Nigerian economy. Therefore, the

implementation of agent banking will undoubtedly improve bank profitability and consumer accessibility, resulting in economic progress for a country, particularly Nigeria.

Therefore, the identified gap in this research is that, the research talks about the Nigerian economy without making reference to financial Inclusion in the first thought.

The impact of agency banking strategies (bank innovation strategy, geographic coverage strategy and technology advancement strategy) on financial inclusion in rural Kwara State, Nigeria, was examined by Abdullahi, Malik-Abdulmajeed, and Fakunmoju (2020). The study used primary data that respondents provided by completing a questionnaire during the years of 2019 and 2020. Testing for validity and dependability of the data was done, and Tobit Regression was used for analysis. The results showed that agency banking tactics such as bank innovation strategies, geographic coverage strategies and technology advancement strategies, have a good and significant impact on the financial inclusion of rural communities in Kwara State, Nigeria.

Therefore, the identified gap in this research is that, the research talks about the financial Inclusion in rural area in Kwara state without considering Nigeria as a whole in the first thought.

Kazeem (2021) looked into how agency banking services (quality, convenience and reliability) affected client satisfaction and, in turn, Nigeria's financial inclusion. Forty Point of Sale (POS) employees and 240 clients were chosen for the study using a random sampling technique. The study was conducted to gather information about the customers of various agency banking services in Nigeria. The results revealed that the quality of service and the convenience of these services were significantly related to the satisfaction of the customers. This suggests that agency banking can help promote economic growth and financial inclusion.

Therefore, the identified gap in this research is that, the research talks about quality, convenience and reliability without considering ATM, POS and debit card in the first instance.

Underpinning Theories

The theories and framework on innovation acceptance which improve this research are: Diffusion of Innovation Theory of Everett Rogers (2003) and Technology Acceptance Model (TAM) (Davis F. 1986).

Diffusion of Innovation Theory

Diffusion of invention or innovations theory was suggested by Everett Rogers in (2003). The theory tries to analyse why, how and at what grade new concepts and technology expands. According to Rodgers (2003), diffusion is the process or means by which an innovation is disseminated or spread beyond the regular time among the players in a social process. Rogers (2003), proposed five characteristics in the theory of invention or innovation which includes the followings: First characteristic which is relative advantage show the extension of technological creation or innovation beyond the old, former or previous creation or innovation. Second characteristic is compatibility. Compatibility is the fitness of technological invention or innovation with the acceptance wants or needs, acceptance exposure, and acceptance value. The third characteristic is complexity which refers to the level of complication or difficulty of understanding and the use of technological creation or innovation. The fourth characteristic is trialability which refers to the level in which financial creation or innovation can be tested and trusted. The fifth characteristic is observability which means the level in which the outcome of acceptance of technological invention or innovation is noticed and informed.

Technology Acceptance Model (Tam)

Technology Acceptance Model (TAM) is an information systems theory that improve how users adapt and accept the use of a technology. The theory was originally put forward by Davis F. (1986) as espousing the tendency to employ technological know how in providing financial services solutions. TAM according to Lim and Ting (2012) explains the perception towards new technology (which) has a direct effect to its functionality as well as the simplicity of the system. The model deals with customers' values and perception of the new technology and not necessarily its real usage. Davis F. (1986) had premised his findings on three causative factors, namely the Perceived Ease of Use of the technology (PEOU), Perceived Usefulness (PU) and Perceived Attitude (PA) towards the use of the technology which ultimately affect their individual preferences. Sebastian (2011) is of the opinion that the technology acceptance theory is the most widely used theory in explaining the acceptance of any information technology by the users, electronic payment system inclusive. Holden and Kash (2010) in their work on the technological acceptance theory discovered that the adoption of technology such as electronic payment system is significantly influenced by the perceived usefulness of the technology.

Perceived ease of use and usefulness are key themes in customer satisfaction concept, it goes to show the rate at which customers who are satisfied with a particular product and in this case digital product and services would continually use such given its attributable qualities. Research carried out have measured customer satisfaction while identifying the link between their satisfaction and various measures such as ease, usefulness and attitude towards new technology.

3.1 Research Methodology

This study used quantitative research technique. Data was collected using cross-sectional approach during the research study period. Again, the data collected was analyzed and explained statistically upon which conclusions was drawn, and significant inferences about the population of the research study were equally made at a point in time. In addition, the reason for the use of cross-sectional design approach above other research design (for example longitudinal research design) was due to its time and money-saving, cost-effective (Punch, 2005; Saunders, Lewis, and Thornhill, 2009; Sekaran and Bougie, 2010; Wilson, 2010). However, PLS-SEM was used to test the proposed hypothesis. The research study houses sample size of 584 respondents in Nigeria. Thus, the sample size of this research study was determined through Krejcie and Morgan population/sample determinant table (1970). The researcher asked the respondents viewpoint on 5 point Liker scale score, ranging from 1 strongly disagreed to 5 strongly agreed on score such as "My bank's AB is accessible beyond regular business hours". Items operationalized to measure AB were rated based on 5 points Liker scale. Here the participants are require to voiced their level of disagreement, agreement or neither agree not that is (1 strongly disagreed and 5 strongly agreed) and questions Such as "You are satisfied with the current AB services of your bank" were asked.

4.1 Results and Discussion

This section of the the research study shows the descriptive statistics involving minimum, maximum, mean, and standard deviation for items in the constructs. Moreover, participants responses were collected on Likert scale with supports from 1 to 5, where 1 is strongly Disagree and 5 is strongly Agree. Besides, Table 1 present the descriptive analysis for AB, QTY, ACC, and USG.

Table 1 Descriptive Statistics for AB, QTY, ACC, and USG.

		Minimum	Maximum	Mean	Std. Deviation
Agent Banking	AB	1	5	3.81	1.09
Quality	QTY	1	5	3.68	1.05
Accessibility	ACC	1	5	3.91	0.98
Usability	USG	1	5	3.98	0.92

Source: Researcher's computation

From the above Table 1, the mean score and std. deviation of the constructs or latent variables (AB, QTY, ACC, USG) range from 3.68 to 3.98 with a standard deviation ranging from 0.92 to 1.09 respectively. In specific, the independent variable AB had a minimum value of 1 and maximum value of 5 with mean value of 3.81 which is the same with the scale of four (4) agree and std. deviation of 1.09 which depict variance of one (1) respectively. However, this shows that, majority of the respondents are of the opinion that AB services is satisfactory. Furthermore, regarding the dependent variables, QTY, ACC and USG in Table 1, had a minimum value of 1 and maximum value of 5 with a given mean value of 3.68, 3.91 and 3.98 which are the same with the scale of four (4) agree and std. deviation of 1.05, 1.98 and 0.92 which depict variance of one (1) respectively. Though, this shows that, majority of the respondents are of the opinion that there is accessibility, quality, and usability of services.

Assessment of Measurement Model

Measurement of outer model analysis the relationships between the indicators and their respective latent variables (Hair et al., 2014; Henseler, Hubona, & Ray, 2016; Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016). However, in this research, the measurement model has been appraised based on its reliability and validity. Besides, using the PLS-SEM as statistical means for the present research study, the measurement scales accepted evaluates individual indicator reliability, internal consistency reliability, convergent validity and the discriminant validity of the indicator or construct relations. Figure 1 and Table 2 shows the measurement model.

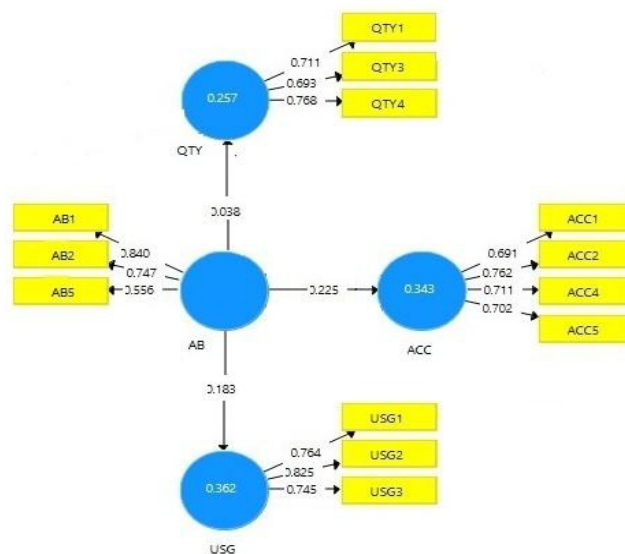


Figure 1 Measurement Model

Table 2 Measurement Model Results

Construct and Indecators	Loadings	Composite Reliability	Average Variance extracted (AVE)
Accessibility			
ACC1	0.691	0.809	0.515
ACC2	0.762		
ACC4	0.711		
ACC5	0.702		
Agent Banking			
AB1	0.840	0.763	0.524
AB2	0.747		
AB5	0.556		
Quality			
QTY1	0.711	0.768	0.525
QTY3	0.693		
QTY4	0.768		
Usage			
USG1	0.764	0.822	0.607
USG2	0.825		
USG3	0.745		

Source: Researcher's computation

From the above Table 2, individual indicator reliability was measured by studying the outer loadings of the latent variable (Byrne, 2004; Hair, Ringle, & Sarstedt, 2014; Hulland, 1999). The standard range values of 0.5 to 0.7 are the acceptable values for indicator reliability proposed by Byrne (2004) and Hair, et al., (2014). Thus, from Table 2 above the outcome of the loading of the 13 items fall between the range 0.5 and 0.8 this exceeded 0.7 as the threshold which is satisfactory. Secondly, the threshold for Cronback's Alpha and composite reliability result is 0.70 or higher as suggested by Bagozzi (1988) and Hair et al (2014), in this research study the composite reliability coefficient approach was used to evaluate the internal consistency reliability and the result of the composite reliability for each construct or latent variable in Table 2 above falls within the range 0.763 to 0.822, which is above the standard minimum threshold of (0.70) which is satisfactory. Thirdly, Convergent validity was verified using the average variance extracted (AVE) Fornell & Larcker, (1981) hold that, the threshold for AVE should be at least 50% (0.5) and in Table 2 above, all the AVE exceeded 0.5 which is satisfactory. Fourthly, this present study used Fornell-Larcker Criterion (1981) to ascertain discriminant validity see Table 3 below.

Table 3 Results of Discriminant Validity Test (Fornell-Larcker Criterion)

	ACC	AB	QTY	USG
ACC	0.717			
AB	0.451	0.724		
QTY	0.399	0.293	0.725	
USG	0.585	0.438	0.386	0.779

Source: Researcher's computation

Discriminant validity as presented in Table 3 above shows that, discriminant validity values were achieved, because the square root of the AVEs were higher and greater than the correlation between the constructs variables which is satisfactory.

Structural Model

After reviewing the standard of the measurement model, this section advanced to the assessment of structural model. However, inner model or structural model as the name implies, shows the relationship among the theoretical latent variables (Chin, 1988; Sarstedt et al., 2016). Though, as revealed by current literature on PLS path modeling, the current research shows the outcome of the results of the inner model through measuring the significance and relevance of the structural path coefficients and the level of R-square (coefficient of determination) (R^2). Therefore, Figure 2 and Table 4 below show the conclusions of the full structural model for this research study.

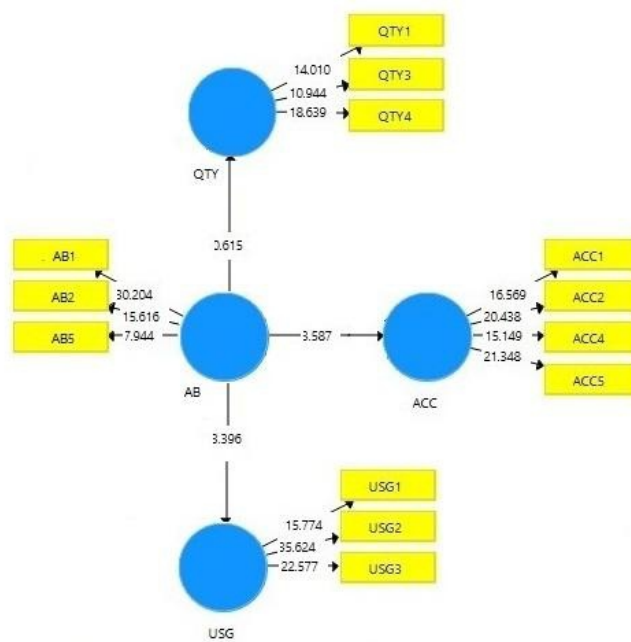


Figure 2 *Structural Model*

Significance and Relevance of the Structural Path Coefficients

The structural model, modeled relationship i.e. the path coefficients represent the hypothesized relationship among the latent variables or constructs. However, the acceptable value of the path model is between -1 and +1 (Hair et al., 2014). From figure 2 above, the arrows value connecting the independent latent variable to the dependent latent variable (i.e. QTY, ACC and USG) represent the T-values. The outcome of the result show significant relationship between all the variables based on the significance level of 5% (0.05) error probability and critical t-value of 1.96 in respect of two-tailed test. Thus, pointing out to significance of the structural path coefficients of hypotheses postulated for the present research study, the results of each significance and their findings are presented in Table 4

Table 4 *Results of Structural Model*

Hypothesis	Relationship	Beta	SE	t-value	p-value	Findings
H1	AB -> ACC	0.225	0.063	3.587	0.000	Not Supported
H2	AB -> QTY	0.038	0.061	0.615	0.539	Supported
H3	AB -> USG	0.183	0.054	3.396	0.001	Not Supported

Source: Researcher's computation

Based upon the theoretical framework of the research study, Three (3) hypotheses were posited out of which only two (2) were statistically significant. However, it could be recalled at the beginning that, Hypothesis 1 predicted that, AB has no significant impact on ACC. Therefore, as indicated in Figure 2 and Table 4, there exist a significant impact between AB and ACC. That is, ($\beta = 0.225$, $t = 3.587$, $p < 0.05$). Consequently, Hypothesis 1 not supported. Conversely, Hypothesis 2 predicted that, AB has no significant impact on QTY. Still, as indicated in Figure 2 and Table 4, there exist no significant impact between AB and QTY. That is, ($\beta = 0.038$, $t = 0.615$, $p > 0.539$). Thus, Hypothesis 2 supported. Lastly, Hypothesis 3 predicts that, AB has no significant impact on USG. However, as indicated in Figure 2 and Table 4, there exist a significant impact between AB and USG. That is, ($\beta = 0.183$, $t = 3.396$, $p < 0.05$). Thus, Hypothesis 3 not supported.

Assessing the Level of R-square (R²)

Evaluating the R-square level also point out testing the coefficient of determination. However, the outcome of the variance is said to range between 0 and 1, with value closer to 1 indicating high level of predictive certainty and vice-versa. Therefore, Falk and Miller (1992) proposed that, for variance explained for a particular dependent (endogenous) contracts to be seen as sufficient, R-square value should be equal to or higher than 0.10. Thus, as shown in Table 5 below, the R-square value for the main outcome of the PLS model was 0.343, 0.257, and 0.362. Though, this proposed that, the independent (exogenous) variables for this study collectively explained 34% (34% adjusted), 26% (25% adjusted), 36% (36% adjusted) of the variance in ACC, QTY and USG.

Table 5 *Results of Variance Explained - Coefficient of Determination*

	R Square	R Square Adjusted
ACC	0.343	0.338
QTY	0.257	0.251
USG	0.362	0.357

Researcher's computation

5.1 Conclusion and Recommendation

This study has contributed to literature on financial inclusion in the context of Nigeria. Generally, the findings of this study give support to the hypothesized relationship between the dependent and independent variables. The research study found that, AB has a significant impact to enhancing accessibility, quality and usability in Nigeria. Therefore, it is recommended that, dissemination of information about the digital financial products and services in Nigeria by the financial institution is necessary, information such as how to use the digital financial products and services, it benefit and also to make the digital financial product and services more accessible and also to upgrade the quality of digital product and services so as to increase the usability of such product and services.

REFERENCES:

- Anifowose & Ekperiware (2022). The effect of automated teller machines, point of sale terminals and online banking transactions on economic growth in Nigeria. *Open Access Research Journal of Science and Technology*. 4. 016-033. <http://dx.doi.org/10.53022/oarjst.2022.4.2.0024>.
- Awoniyi, O. (2022). Digital Banking Adoption in Nigeria: The Place of Technology Acceptance Model. *Asian Journal of Economics, Business and Accounting*, 22(7), 59-72.
- Boston Consulting Group, 2023 <https://fintechnews.africa/45702/fintech-nigeria/the-biggest-fintech-companies-in-nigeria/>
- Buchi, (2022). Agent Banking in Nigeria: All You Need to Know and How to start it. Retrieved from: <https://kobotalk.com/agent-banking-in-nigeria-all-you-need-to-know-and-how-to-start-it/>
- CBN (2025) Guidelines for the operations of Agent Banking in Nigeria.
- Cecilia and Kiran 2024. A Study on the effectiveness of ATM/Debit card as a modern Banking tool in providing customer satisfaction; A Case study among the nationalized and private banks in Manholore. *International Research Journal of Modernization in Engineering Technology and Science*.
- Chin, W. W. (1988). The partial least squares approach to structural equation modeling in In G. A. Marcoulides (Ed.), *Modern methods for business research*. Mahwah, NJ: Lawrence Erlbaum.
- Chude, N. P. & Chude, D. I. (2022). Effects of financial inclusion on economic growth in Nigeria. *ANAN Journal of Contemporary*, 3(3), 156-172
- Chude, N. P. & Chude, D. I. (2022). Effects of financial inclusion on economic growth in Nigeria. *ANAN Journal of Contemporary*, 3(3), 156-172
- David T. A., Tyagher, M., Jacob, T. T. and Tordue, E. K. (2022). An Empirical Analysis of the Impact of Agency Banking on Financial Inclusion in Benue State, Nigeria: Implications for Economic Activities. *International Journal of Economics and Finance*; 14(2); 75-86.
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Sloan School of Management, Massachusetts Institute of Technology.
- Emuveyan, E. A., & Ekwunife, I. J. (2021). Influence of Agent Banking on the Nigerian Economy. *Journal of Emerging Trends In Management Sciences And Entrepreneurship*, 3(1), 181–188. Retrieved from <https://www.jetmase.com/index.php/jetmase/article/view/8>
- Fornell, C., & Larcker, D. (1981). Structural equation models with unobservable variables and measurement error: algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388.

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modelling (PLS-SEM)*.
- Hannig, A., & Jansen, S. (2010). Financial inclusion and financial stability: *Current policy issues*.
- Hasan, M., Noor, T., Gao, J., Usman, M., & Abedin, M. Z. (2023). Rural Consumers' Financial Literacy and Access to Fintech Services. *Journal of the Knowledge Economy*, 14, 780-804. [Google Scholar] [CrossRef].
- Hayes, A., Estevez, E. & Jasperson, H. (2020). Point of Sale (POS). Retrieved from: <https://www.investopedia.com/terms/p/point-of-sale.asp>
- Hicks, D. & Niehans, J. (1983). Financial innovation, multinational banking and monetary policy. *Journal of Banking and Finance*, 537-551.
- <https://www.linkedin.com/pulse/agent-banking-footprint-nigeria-future-brick-mortar-alexander-okafor>
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(April 1998), 195–204.
- IMF (2024) Financial Access Survey 2024 Highlights: Marking 15 Years of Supporting Financial Inclusion.
- Jabir & Saminu (2024) Role of agency banking in driving financial inclusion metropolitan system. *Journal of Management Science and Entrepreneurship*.
- Kalyegira, J. (2020). The impact of agency banking on financial inclusion in Uganda. *Journal of Finance and Economics*, 8(4), 162-170.
- Kazeem, B. L. (2021). The Effect of Agency Banking Services on Customers' Satisfaction in Nigeria. *Journal of Management Sciences*. 4(3), 206-214
- Mbogo, R. W., & Muturi, W. (2021). Agency banking and financial inclusion in Tanzania. *African Journal of Business Management*, 15(4), 110-119.
- Mohammed, Z., Ibrahim, U. A., & Muritala, T. A. (2022). Effect of Payments System Innovations on the Financial Performance of Commercial Banks in Nigeria. *Journal of Service Science and Management*, 15(1), 35-53.
- Moses Blessing & Adam Rajuroy (2025)
<https://www.researchgate.net/publication/389339539>
- Odumisor, C. J., Acquah, S. J. & Abiji, E. (2024). Financial inclusion and its effect on economic growth in Nigeria. *International Research Journal of Economics and Management Studies*, 3 (2), 231-244. Doi: 10.56472/25835238/IRJEMS-V3I2P129. IIARD – International Institute of Academic Research and Development Online reference http://en.wikipedia.org/wiki/Digital_wallet
- Okafor, A. (2020). Agent Banking Footprint in Nigeria and the future of Brick and Mortar Banking. Retrieved from

- Okafor, E. (2022). Facts Behind Financial Inclusion Figures: Nigeria's 2021 Indices. Retrieved from: <https://businessday.ng/financial-inclusion/article/facts-behind-financial-inclusion-figures-> Quadri et al. / TIJAB (The International Journal of Applied Business), 8(1) (2024) 104–116 nigerias-2021-indices/#:~:text=With%20a%20tepid%200.9%20percent,to%2035.9%20percent%20in%202020
- Peterson K. O (2025) Financial inclusion and bank stability: evidence from capital buffer and capital adequacy ratio. *Journal of Chinese Economic and Foreign Trade Studies* · June 2025 DOI: 10.1108/JCEFTS-05-2024-0035.
- Proshare 2025 <https://www.proshare.co/articles/nigerias-e-payment-transactions-rise-to-historic-n1.07-quadrillion-in2024?menu=Economy&classification=Read&category=Nigeria%20Economy>.
- Rogers, E.M. (1983) *Diffusion of Innovations*, New York: Free Press.
- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM : Where the bias lies ! *Journal of Business Research*, 69(10), 3998–4010. <https://doi.org/10.1016/j.jbusres.2016.06.007>.
- World Bank (2022). Financial Inclusion Overview. Retrieved from: <https://www.worldbank.org/en/topic/financialinclusion/overview>
- Xi, W., & Wang, Y. (2023). Digital financial inclusion and quality of economic growth. *Heliyon*, 9(9), e19731.