



Influence of Point of Sale (POS) on the Nigerian Economy, 2003-2023

EMMANUEL TOBY, IMAOBONG TOBY
University of Benin, Benin City, Nigeria

Abstract. Point of Sale (POS) has significantly impacted the banking sector of the Nigerian economy. The study is retracted to Benin City, Edo State, Nigeria. The POS operation in Benin City generated employment for the operators and made banking services available to all parts of the society, thereby reducing the stress of going to the bank for their customers except in some serious transactions. The study adopted the Innovation Diffusion Theory and Humphrey, Pulley, & Vesala's Cashless Economy Theory to explain the rationale for e-banking in Nigeria. The study was exploratory and purely qualitative; it made use of the in-depth interview guide in eliciting the required responses, adopting purposive and convenience sampling techniques. It made use of 20 participants who are POS operators in Benin City. The study revealed that even though the POS system improves banking operational efficiency in Benin City by ensuring the availability of banking services to members of the public, it also faces some challenges like poor network connectivity and security risks to both the operators and the customers. The study concludes that the POS operation in Benin City needs support and a more secure environment for the operators to fully utilize the system. In this regard, the study suggested financial assistance to the operators by the government and the banks, improving network stability by the network providers, and improved security for the operators.

Keywords: Benin City, Challenges, POS Operators and Significant Impact.

1. Introduction

Nigeria's contemporary market economy is driven by an e-payment system known as point of sale (POS). This e-payment system has been acknowledged to have detrimental effects on monetary policy, financial

stability, and overall economic activity (CBN, 2011). The Central Bank of Nigeria (CBN) introduced a payment system that made electronic payments possible in 2002. During this period, the Nigeria Automated Clearing System (NACS) was introduced as a legitimate platform to promote electronic payments and reduce inspection processing time. Additionally, in 2003, Interswitch unveiled Automated Teller Machines (ATMs). The new standard accounting system (NUBAN) was introduced in 2010, and Real Time Gross Settlement was put into effect in 2006. The first set of cash deposit ATMs was then introduced in early 2011 after the Nigerian Inter-Bank Settlement System announced fast payment services (KPMG, 2012). The move to a cashless economy was suggested in December 2011 and made official in Lagos in January 2012. Abuja, Port Harcourt, Abia, Kano, and Ogun State successfully adopted cashless policies by the end of 2013 (Amadiokoro, Ozurumba, Nwaimo, Anyanwu, and Ubah, 2023). After successful implementation of the e-payment policy in the country, many Nigerians have been included in the mainstream financial system since the introduction of various e-payment channels, which has allowed them to mobilize idle funds for investment purposes. The various e-payment platforms have made transactions easier and more convenient, particularly for the new e-commerce companies that are gaining prominence. In addition, it has enabled numerous online enterprises and witnessed the smooth movement of funds from one location to another.

The e-payment channels, specifically point-of-sale (POS), have become ubiquitous in our society, offering banking services directly to individuals, leading to an increase in both direct and indirect employment. It has led to financial inclusion and a cashless economy (Kayode, 2021). Since Nigeria's

economy relies heavily on cash, managing it is expensive. It has been determined that depending on cash-based payment systems is both dangerous and inconvenient. A sizable amount of money is in the hands of unbanked people as a result of carrying cash in the economy. The CBN introduction of electronic payment technologies, such as point of sale (POS), into the Nigerian economy is therefore an attempt to lower the amount of cash in circulation and lower the risk of carrying large quantities of cash.

The policy has given rise to the introduction of switch companies that facilitate interconnectivity (Adeoti 2013). Retail transactions are carried out through point-of-sale (POS) terminals. Depending on the type, it can offer a wide range of services, including transactions, check reading, and credit card processing. These gadgets are present almost everywhere in Nigeria where buying and selling takes place. This is as Nigerians enthusiastically and warmly embraced the usage (POS) in their daily transactions. This has led to a sharp rise in its application in the public and commercial sectors of the Nigerian economy. According to Salimon (2006), the introduction of payment instruments such as point of sale (POS) terminals and automated teller machines gave rise to significant growth in the use of electronic payment systems. He continued that the implementation of the POS policy had numerous positive effects on the Nigerian economy. POS helped to generate hundreds of work opportunities for thousands of young Nigerians. Okoye, Orajaka, & Nnebe (2022) reported that, with advancements in financial technology, Nigerians are taking the POS services subsector as agency banking; many have become self-employed, creating jobs for many others, making banking service available to all parts of the country. Against this background, the study examines the influence of point of sales (POS) on the Nigerian economy.

1.1 Objectives of the study

The following are the specific objectives of the study, to:

- examine the challenges faced by POS operators in Nigeria;
- determine the impact of POS on the Nigerian economy

2. Review of Related Literature

According to Anyanwu & Anumaka (2020), the Central Bank of Nigeria's cashless policy initiative is an attempt to improve the economy's financial

landscape. The broad use of computer technology in the financial sector is known as the cashless society (Ordu, & Mike (2016).). Evaluating this policy's chances of success. Ejiros (2012) opined that “in the long run sustainability of the policy will be a function of the endorsement of, and compliance by, end-users.” The CBN estimates that when the strategy is fully implemented, it will cut the costs associated with sustaining a cash-based economy by 90%. The Point of Sale (POS) terminal was introduced by the CBN to drive home its cashless policy aimed at enhancing Nigeria's payment system (Iwedi, Igbaniibo & Uzo-ahunanya, 2018). In Nigeria, among the services it enabled were retail payments, cashless payments, cash back balance inquiries, airtime vending, and mini-statement printing.

The POS are electronic payment devices designed to facilitate the exchange of goods and services without the need for physical cash. This kind of electronic payment handles balance inquiries, payments for goods and services, and electronic financial transfers at a specific point of sale. Customers can utilize the device to pay for the goods and services they have purchased even though they have or no physical cash on hand. Through the use of this technology, local prepaid cards facilitate money settlements and transactions for products and services. (Okoye et al, 2022). At POS terminals, a customer inserts his or her card, enters his information, and if he is paying for goods or services, his or account is debited at that moment, transferring money to the service provider's account. (Okoye et al., 2022).

The POS is among the most widely used methods of payment for credit cards, debit cards, and other online transactions in a buying and selling setting in Nigeria. These terminals are used in in-person transactions and automatically transfer the purchase price from the seller's account through a network connection to bank systems or a telephone (Amir Shahi, 2010). Apart from payment, POS services included checking of account balance, account billing, postponing a purchase, and daily reports, which has the benefits of a small bank branch for its owners. With the POS introduction into the Nigerian economy, banking practices have been altered, and bank clients' affairs have been made easier by the incredible growth of ICT and its integration into financial markets and banking systems of the country. In addition to lowering the costs associated with providing these services, new technologies like bank electronization allow banks to improve the speed, quality, precision, and variety of their services.

The growth of electronic payments could significantly decrease social costs of a country's payment system (Humphrey, Willeson, Bergendahl, and Lindblom, 2006, in Ganjikhah, Rabiee, Karimzadegan Moghaddam, and Vahdat, 2017). POS is a totally known device in the world economy and, in a way, is considered as a catalyst in the global economic system. It offers several advantages, such as reducing wasted time and needless travel by bank customers and reducing the high level of security risk of moving around with physical cash, among other benefits.

POS is a device used for recording transactions in a store, which can be said to be a modern-day cash register. POS is a device that is placed in the middle of the sale of goods and services. According to Gilaninia, Fattahi, and Mousavian (2011), the transaction amount from an account holder (i.e., customer) is electronically taken from their accounts using an electronic card, while the card acceptor (seller) is paid. This eliminates the need for cash payments through physical transportation of money. According to Akerejola, Okpara, Ohikhen, and Emenike (2019), a point-of-sale A POS system is a device placed in a business site where customers swipe their electronic cards to pay for goods or services rather than using cash.

3. Benefits of POS and Cashless Policy

Abubakar, Soliu, & Adejumobi (2023) list some of the following advantages of using POS rather than cash-based transactions: Long lines in banking halls are eliminated, thereby reducing time wasted in the banking halls; conflicts between bank officials, such as cashiers, and bank customers are reduced; sales are increased; time spent collecting, counting, and sorting cash is eliminated; operations are made more convenient; the rate of armed robberies that involved bank customers is decreased; customer satisfaction is increased; the banks' large customer coverage is improved; and funds in circulation are made available for the nation's economic development. Fewer consumers are going to bank branches to make cash withdrawals and deposit funds into centralized accounts, reducing worn-out cash from the circulation, thereby reducing depreciation of banks' notes. Increasing public health and reducing infectious diseases brought on by coin and banknote contact, creating jobs for the POS operators, thereby creating wealth in the society, and finally making banking services available in all parts of the country.

4. Challenges Faced by POS Operators

4.1 Regulatory and Policy Instability

The POS legal framework of the central bank may be affected by frequent government changes of policy, which can lead to revisions to the design of the POS policies in Nigeria (Agoba, Abor, Osei, Sa-Audu, 2018). In the same vein, Aisen & Veiga (2010) noted that frequent changes of the governing structure of the Central Bank of Nigeria have the potential to shorten policymakers' horizons, resulting in suboptimal short-term macroeconomic policies. It has the potential to result in a more frequent change of policies. Monetary policy, managed by central banks, aims to stabilize prices by controlling the money supply, with a primary goal of low and stable inflation. It also supports economic growth and employment, acting countercyclically to address price stability and economic fluctuations. This is achieved through contractionary policy during high inflation and expansionary policy during economic weakness. Implementation typically involves the banking system and financial markets, utilizing tools like reserve requirements, open market operations, and policy rates. Central banks employ various frameworks, including monetary, exchange rate, and inflation targeting, and have increasingly adopted unconventional policies in response to severe economic downturns (CBN, 2017). Research has revealed that there is a time lag in the monetary policy transmission process that reduces the efficiency of the monetary policy (Fu & Liu, 2015). Funds do not always move to or from the sector or business that the central bank aims to regulate when it loosens or tightens its monetary policy.

4.2 Lack of Proper Training and Financial Literacy

The Nigerian Financial Intelligence Unit (2022) noted that the operators should ensure training as a key requirement for POS operators, which should include routine training on Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) concepts, identification of red flags and indicators of Money Laundering/Terrorist Financing (ML/TF) via the POS machine, and meticulous record-keeping of all transactions. Operators must conduct Know Your Customer (KYC) procedures for all customers and maintain integrity and professional ethics. The training should also involve learning and adhering to the proper procedures for reporting suspicious activities and suspicious customers through relevant channels. Furthermore, collaboration with banks to acquire electronic record tracking devices, such as biometric authentication machines for customer verification in line with KYC principles, is essential for safe operation of POS services. Continuous review of products and services in relation

to associated risks is also mandated for the POS operators.

5. Impact of Point of Sales

5.1 Financial Inclusion

Ogidi and Pam (2021) defined the concept of financial inclusion (FI) as a deliberate strategic effort to ensure that financial products and services are extended to the disadvantaged, vulnerable populace and average category of less privileged income recipients who cannot afford simple costs of savings, money deposits, pensions, credit facilities, and insurance. Consequently, the significance of FI is to provide low-income individuals or unprivileged people with basic financial products and services that are accessible, available, reliable, flexible, and reasonably convenient. (Ogidi and Pam, 2021; Eton, Mwosi, Okello-Obura, Turyehbwa, and Uwonda, 2021). Financial inclusion is the basis and channel of affordable and reachable means of financial empowerment that are inclusive of anyone with or without capital strength. Financial inclusion is a strong determinant of the delivery of financial services/products to the unbanked and the low-income earners of society (Inegbedion, Akande, Olalekan, Adeyemo, Adedugba, 2022). This is what POS has provided for the people of Benin City irrespective of their level of income and locations.

5.2 Employment Generation

In order to improve the payment system and advance its cashless strategy, the Central Bank of Nigeria (CBN) implemented point-of-sale (POS) terminals for financial transactions in 2012. The number of POS terminals that banks have made available to mobile money businesses has been steadily expanding since the launch. It resulted from POS transactions' social acceptance. This opportunity has been explored by the majority of Nigerian youths who were desperately seeking employment opportunities and daily sources of revenue. Because the opportunity was seen as a potentially profitable business and job opportunity, the desire to earn a living despite Nigeria's devastated economy and unacceptable unemployment rate led to an astounding rise in the number of money merchants, or POS businesses in Benin City and its environs. Self-employment through the POS business has been discovered to be a significant source of income for many young people in Benin City. Young entrepreneurs in urban and semi-urban areas are using POS terminals to render banking services like cash withdrawals, airtime purchases, and bill payment to their customers. In 2024, the value of transactions

through point of sale (POS) terminals in Nigeria increased to 18 trillion, making it an all-time yearly record (Akintaro, 2025). The operation of thousands of POS agents in Benin City has created direct and indirect employment opportunities.

5.3 Growth of Digital Economy

Nigeria's shift to a digital economy is carefully linked to the increased use of POS (Agboola, 2022). Cashless transactions can be enabled at POS terminals, which reduces the dependence on physical cash, enhances transaction efficiency, and supports e-commerce growth. In Nigeria, the term "cashless policy" refers to the encouragement and uptake of electronic payment methods as a substitute for cash transactions. In an attempt to modernize the nation's payment system, increase efficiency, and lessen reliance on cash, the Central Bank of Nigeria (CBN) implemented it. Nwani, Nwaimo, & Kanu (2020) opined that cashless policy is aimed at promoting a more secure, convenient, and transparent payment ecosystem, contributing to economic growth and financial inclusion. Reducing the expenses related to handling currency, including printing and distribution, security, and counterfeiting risk, is one of the main drivers behind the adoption of the cashless policy. The switch from cash-based to electronic payments is made easier by POS transactions. The cashless policy increases tax collection, decreases leaks, and fosters openness by promoting the use of POS terminals. These factors have positive implications for economic growth, as they foster an enabling environment for business expansion and attract investments (Nwaka & Adeniran, 2021). Nigeria's cashless policy seeks to encourage the usage of electronic payment methods in place of cash transactions. It aims to increase economic growth, lower expenses, encourage financial inclusion, and improve efficiency.

Ezie, Mbabie, and Diyoke (2024) noted that while the broader goal is to reduce dependency on physical cash, the actual mechanics of this transition are intricately tied to technological modalities, primarily ATM transactions, Point of Sale (POS) systems, and web-based payments. Moving deeper into the digital domain, the POS payment system emerges as a game-changer. Ovia (2017) emphasizes the transformative potential of technology in his pragmatic definition of cashless policies. This transformation is readily apparent in POS systems. Instead of handling cash, businesses can use POS terminals to process debit and credit card transactions, increasing the speed, efficiency, and transparency of in-store purchases. These systems reflect the broader objectives of cashless initiatives: promoting efficiency and

transparency and potentially boosting economic growth by streamlining the retail sector.

5.4 Boost to Micro, Small, and Medium Enterprises (MSMEs)

One benefit of point-of-sale (POS) systems for micro, small, and medium-sized businesses is their ability to accept card payments and mobile transfers. This increases sales, lowers the chance of theft, and improves the breaking of records. Permits access to credit; creditworthiness can be assessed using digital transaction data.

5.5 Reduced Cost of Banking

POS transactions help in expanding financial services beyond physical branches. POS agents can be used by banks to reach customers instead of building new infrastructure in every locality. Adamu, Kawugana, and Abdullahi (2025). It benefits consumers' convenience and banking efficiency, as it helped to reduce crowded banking halls.

6. Theoretical Framework

Cashless Economy Theory was proposed by Humphrey, Pulley & Vesala (1996). The Cashless Economy Theory states that an economy operates more efficiently when transactions are conducted electronically rather than in cash. The introduction of POS transactions is part of Nigeria's effort to transition into a cashless economy. POS transactions help reduce cash handling risks and operational costs for banks. They contribute to the growth of digital banking and financial inclusion.

6.1 Innovation Diffusion Theory

The Innovation Diffusion Theory (IDT) explains people's intention to use technology as a channel to carry out a conventional task. The theory was developed by Roger in 1983, and the critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 2004). The notion regarding the adoption of e-banking was examined by researchers like Gerrard and Cunningham (2003). Observability, triability, and complexity are the nominalized factors. The deconstructed theory of planned behavior is the source of the underlying theory used in this work. According to this idea, attitude, perceived behavioral control, and subjective norms all have an impact on how people utilize technology. According to the hypothesis, intermediation efficiency increases as the

percentage of currency outside banks to the total money supply decreases, and vice versa.

It is sufficient to say that intermediation efficiency will be good when the amount of cash outside of banks declines due to the rise of electronic payment methods, especially point-of-sale (POS) and other e-card products, as well as banking practices; otherwise, it will be negative. The goal of the diffusion of innovations hypothesis is to show how, why, and how quickly new concepts and innovations proliferate across cultural boundaries.

This concept was first put forth by Gabriel Tarde (1890), and it was made popular by rural sociology professor Everett Rogers in his 1962 book *Diffusion of Innovations*. He clarified that diffusion is the process by which an invention spreads over time among members of a social structure via particular channels. This concept was employed, among others, by Saparudin, Rahayu, Hurriyatin, and Sultan (2020). According to these two hypotheses, the sooner this nation's citizens embrace agent banking, the sooner business operations will improve and young entrepreneurs will be less impoverished, which would promote national economic growth and development.

7. Research Methodology

The study is exploratory and adopts the qualitative method of data collection and analysis on 20 participants who are point-of-sale operators in Benin City. The study made use of an in-depth interview guide in eliciting the desired responses from the participants, who were selected using purposive and simple random sampling techniques. Secondary data such as publications and other sources relevant for the study were utilized. Participants were selected based on availability and willingness to give audience to the research team as it adopted all the ethics in social science research.

8. Discussion of Findings

Objective one: The challenges faced by POS operators

In examining the challenges faced by POS operators in Benin City, it shows that various operators interviewed are faced with both operational and financial challenges, as the first participant says: Poor network connectivity is one of my main operating issues. Transactions can sometimes fail totally or take a while to process; that annoys clients and leads to long queues. This may result in a decline

in client loyalty and a loss of trust (IDI, POS Operator-January, 2025).

Another respondent added by saying:

Managing capital and float is extremely difficult from a financial standpoint. Obtaining enough cash to cover customer withdrawal requests can be a challenge, especially when banks are closed or cash is scarce. Taking out high-interest loans is necessary to continue operating at times (IDI, POS Operator-January, 2025).

A respondent summarized her response thus:

The importance of security cannot be overstated. We face fraud threats from both customers and cybercriminals. There have been instances of fake alerts, stolen cards, or individuals trying to tamper with the transactions. POS operators are at risk of financial loss due to all the above-mentioned factors (IDI, POS Operator-January, 2025).

One respondent said:

When delays are caused by technological glitches or a lack of funds, customers may become unhappy or impatient due to their expectation for fast and seamless service. It can be difficult to manage their expectations, particularly when problems are out of our control (IDI, POS Operator-January, 2025).

Another respondent added that:

At times, bank policies and regulations can be subject to sudden changes. It's crucial that we comply promptly, which means providing more documentation or altering costs. Misunderstandings caused by it impact our daily operations (IDI, POS Operator-January, 2025).

When asked the POS operators how they view the effects of security issues, network connectivity, and regulatory policies on their operations. The participant responses were thus:

Network issues are a constant source of discomfort. When the network is unavailable or running too slowly, we are unable to complete transactions, which annoys or turns off customers. Our daily revenue is directly impacted because we are compensated for each transaction (IDI, POS Operator-January, 2025).

One of our greatest concerns is security. Particularly with phony notifications and cloned cards, we are susceptible to fraud. Some frauds are difficult to identify, despite our best efforts to validate transactions. We suffer a direct financial loss each time we are a victim (IDI, POS Operator-January, 2025).

Regulations can be erratic, particularly those imposed by the government and banks. For instance, our profit margins are lowered when transaction costs are altered or withdrawal charges are capped. They occasionally fail to take into account how these rules impact small POS agents like ourselves (IDI, POS Operator-January, 2025).

Poor networks, fraud, and frequent legislative changes are all problems that hinder our capacity to expand. Delays or unsuccessful transactions erode customer trust, and we are unable to grow as we are constantly attempting to address issues rather than concentrating on expansion." (IDI, POS Operator—January, 2025).

We believe that greater assistance is needed for POS operators. The system is unstable; networks go down, we lose money to fraud, and nobody properly updates us on policy changes. We require improved communication between banks and authorities as well as more robust protection (IDI, POS Operator-January, 2025).

Objective Two: The Impact of POS

When asked of their views on the impact of the POS system on their daily work efficiency and customer service experience. Their responses were thus:

The POS system has made my job a lot easier and more organized. Everything is done automatically, even figuring out how much change to provide and writing receipts. It helps me service more customers in less time (IDI, POS Operator—January 2025).

I found the method a little challenging to use at first, but once I got used to it, it was very easy. Sales, returns, and even inventory inspections are no longer concerns for me (IDI, POS Operator-January, 2025).

Customers appreciate transactions that are accurate and swift. Errors in pricing and change are less frequent, and they immediately obtain receipts. The service appears more professional as a result (IDI, POS Operator-January, 2025).

Delays or outages in the POS system have a major effect on our work. We are compelled to employ manual processes, which aggravates clients and creates delays. It might be upsetting when technical issues keep you from offering timely service (IDI, POS Operator-January, 2025).

With the POS system, I can monitor sales and inventory without constantly checking. It allows you

to spend more time with customers and other obligations (IDI, POS Operator-January, 2025).

Although I think the system is useful, we weren't well trained when it was first put into place. Sometimes I have to ask my coworkers for help with certain chores. The impact of proper instruction would be substantial (IDI, POS Operator-January, 2025).

One of the best aspects is the ease with which daily reports may be retrieved. It makes responsibility and planning easier. What I can easily see and what isn't selling well (IDI, POS Operator-January, 2025).

When asked about their experiences with the influence of POS systems on inventory management and sales tracking.

The respondent's responses were thus:

Since using a POS system, I've seen a substantial improvement in my inventory management. It automatically changes stock levels after every sale, so I don't have to do human counts every day. It reduces errors and prevents overstocking or stockouts (IDI, POS Operator-January, 2025).

The POS system's real-time sales tracking tool is among its top features. I can see what's selling and when even if I'm not in the store. It helps me make business decisions faster (IDI, POS Operator, January 2025).

The POS system alerts me when stock levels are low, allowing me to restock supplies before they run out. The reordering procedure is made easier and faster by it (IDI, POS Operator-January, 2025).

I first spent a lot of time entering all the inventory data and setting up the POS system. There was a monetary investment as well. However, once everything was set up, I was able to save a significant amount of time (IDI, POS Operator—January, 2025).

The sales numbers that the POS system produces allow me to observe how well my company is doing. My ability to identify best-selling items, slow-moving commodities, and customer buying trends helps with promotion planning and increases sales (IDI, POS Operator—January, 2025).

Since putting the POS in place, I've noticed reduced inventory loss. It is harder for items to vanish unnoticed because every item is tracked. Employee accountability has surely grown as a result (IDI, POS Operator—January, 2025).

Most of the time, the system works perfectly; however, when it crashes or the network is down, I can't access my sales and inventory data. That might

be a significant problem, especially at busy times (IDI, POS Operator-January, 2025).

9. Conclusion and Recommendations

The paper has revealed the mixed experience of point-of-sale operation in Nigeria. The POS system enhances operational efficiency by making banking services available to all parts of Benin City, providing job opportunities for the operators of POS in Benin City. The POS operation in the city faces a number of challenges, including poor network connectivity, security risks from fraud and cybercrime, and inadequate communication from banks, which reduce its effectiveness and result in financial losses and eroded customer trust. In order to improve support and sustainability for POS operators in Benin City, the study recommends that the following measures be taken: establishing clear communication channels for regulatory updates; offering low-interest financial assistance and technical support that is available around-the-clock; improving network stability with dedicated infrastructure and automated failover systems; improving security through improved fraud detection and continuous training for the operators; and creating a community-based support system for the operators to share best practices and experiences.

References

- Abubakar, S. B., Soliu, R. A., & Adejumbi, C. T. (2023). Contribution of Point of Sales (POS) to Rural Economy: During the CBN's Cashless Introduction: A Case Study of Some Selected Communities in the Oke-Ogun Area in Oyo State *African Scholars Journal of Business Dev. and Management Res. (JBDMR-7)* 30(7), 253-260
- Adamu, Y., Kawugana, A., Abdullahi, S. S. (2025). The Impact of POS Transactions on Bank Operations and Consumer Satisfaction *IJAR International Journal of Banking and Finance Research* 11(1), 105-118
- Adeoti, O. O. (2013). Challenges to the efficient use of Point of Sales terminals in Nigeria, *Africa Journal of Business Management*, 7(28), 2801-2806
- Agboola, O. (2022). Nigeria's Budding Digital Economy: Coping with Disruptive Technology *Central Bank of Nigeria Economic and Financial Review* 60(4), 33-50
- Aisen, A., Veiga, J. (2010). How Does Political Instability Affect Economic Growth? *International Monetary Fund Working Paper* 1-29

- Akerejola, W. O., Okpara, E. U., Ohikhena, P., & Emenike, P. O. (2019). Availability of Infrastructure and Adoption of Point of Sales of Selected Small and Medium Enterprises (SMEs) in Lagos State, Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 9(1), 137–150
- Akintaro, S. (2025). POS Transactions Surge to 18 Trillion in 2024 as Fintechs Expand Terminal Deployment <https://nairametrics.com/2025/02/04/pos-transactions-surge-to-18-trillion-in-2024-as-fintechs-expand-terminal-deployment/>
- Amadiokoro, N. M., Ozurumba, B. A., Nwaimo, C. E., Anyanwu, F. A., Ubah, C. P., (2023). Effect of Electronic Payments System on the Economic Prosperity of Nigeria IOSR *Journal of Economics and Finance (IOSR-JEF)* 14(1) II, 1-11
- Amir Shahi, P. M. (2010) Identification of factors that influence customers' acceptance of internet Banking in Iran. Ecommerce in developing countries: with Focus on export
- Anyanwu, G. I. and C. I. Anumaka (2020). Point of Sale and Cashless Policy in Nigeria: Challenges and Prospects. *Asian Journal of Economics, Business and Accounting* 20(2): 42-57
- CBN, (2011). Towards a Cashless Nigeria: Tools & Strategies. *Nigerian Journal of Economy*. 3(2), 344-350
- Central Bank of Nigeria (CBN, 2017). Monetary Policy at a Glance. CBN Monetary Policy Department.
- Ejiro, O. (2012). What Nigerians think of the cashless economy policy. *Nigerian Journal of Economy*, 4(6): 97- 102
- Eton, M., Mwosi, F., Okello - Obura, C., Turyehbwa, A., and Uwonda, G. (2021) Financial inclusion and the growth of small medium enterprises in Uganda: Empirical evidence from selected districts in Lango sub-region. *Journal of Innovation and Entrepreneurship*, 10(23), 2–23.
- Ezie, O., Mbabie, F. C., Diyoke, O. K. (2024). Dynamics of Cashless Payments and Nigeria” Economic Growth: Quarterly Analysis Accounting, Budgeting and Financial Management 1(1),16-28 <https://primaljournals.org/articles/Dynamics-of-Cashless-Payments-and-Nigerias-Economic-Growth-Quarterly-Analysis>
- Fu, Q. & Liu, X. (2015). Monetary Policy and Dynamic Adjustment of Corporate Investment: A Policy Transmission Channel Perspective. *China Journal of Accounting Research* 8, 91-109
- Ganjikhah, A., Rabiee, A., Moghaddam, D. K., & Vahdat, D. (2017). Comparative Analysis of Bank’s ATM and POS Technologies by Customers. *Independent Journal of Management & Production (IJM&P)* 8(3), 831-848
- Gerrard, P. & Cunningham, J. (2003). The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing*. 21. 16-28
- Gilaninia, S., Fattahi, A. & Mousavian, S. J. (2011). Behavioral factors tend to use the Internet banking services case study: System (SABA), the Melli Bank, Iran, Ardabil, *International Journal of Business Administration*, 2(3), 173-179.
- Humphrey, D. B., Pulley, L. B. & Vesala, J. M. (1996) Cash, Paper, and Electronic Payments: A Cross-Country Analysis. *Journal of Money, Credit and Banking* 28(4):914-939.
- Inegbedion, D. O., Akande, O. O, Olalekan, A., Adeyemo, F. Adedugba, A. (2022). The Effect of Financial Inclusion and Entrepreneurship Creation Among Agency Banking. Empirical Investigation of Point of Sale (POS) Card Acceptance Operators in Nigeria: Special Reference to Lagos Metropolis. *Journal of Southwest Jiaotong University* 57 (5), 83-92
- Iwedi, M., Igbanibo, D. S. & Uzo-Ahunanya, C. (2018). Effect of cashless economy policy on National Development: Evidence from Nigeria. *Journal of Economics and Management Sciences*, 1(2), 56-60.
- Kayode, O. (2021). A deep dive into the activities of PoS agents in Nigeria. <https://techpoint.africa/2021/07/15/pos-business-in-nigeria/>
- KPMG (2012). Managing the Transition to a Cashless Economy in Nigeria: The Challenges and Strategies. Nigeria Computer Society 24th National Conference.
- NFIU, (2022). Updated Operational Alert on Emerging Trend of Money Laundering Through Agent Banking: Focus on Point of Sale (POS) Business. NFIU/EXT/PUB/GUIDE/AC-STEI/ I (011),1-13
- Nwaka, I. K., & Adeniran, A. E. (2021). The effect of electronic fund transfer and economic growth: Evidence from Nigeria. *Heliyon*, 7(4), 67-75.
- Nwani, J., Nwaimo, C. & Kanu, S. (2020). Cashless policy and the Nigerian payment system.

- International Journal of Innovation and Economic Development*, 5(6), 7-29.
- Ogidi, E.J. & Pam, P. (2021). Financial inclusion and growth of small and medium enterprises in Plateau State. *African Journal of Business and Economic Development*, 1(8), 69–81.
- Okoye, V. C., Orajaka U. P.&Nnebe, E. G. (2022). Impact of POS Business in Reducing Unemployment Rate in Anambra State, *International Academic Journal of Management and Marketing* 7(2), 50-62.
- Ordu, M. M., Mike, A. (2016). Cashless Economic Policy in Nigeria: A Performance Appraisal of the Banking Industry. *IOSR Journal of Business and Management* 18(10), 1-17.
- Ovia, J. (2017). Emerging trends in a cashless economy. *Journal of Monetary Economics*, 82, 71- 86
- Salimon A (2006). “Moving towards a cashless economy, *Financial Standard* 7(60), 19-21
- Saparudin, M., Rahayu, A., Hurriyati, R., & Sultan, M. A. (2020). Exploring the role of trust in mobile-banking use by Indonesian customer using unified theory of acceptance and usage technology. *International Journal of Financial Research*, 11(2), 51-60