



## Original Article

## Effect of cashless policy on agricultural activities of arable crop farmers in Egbeda, Oyo State, Nigeria



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### ABSTRACT

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A cashless policy decreases the bulk of physical cash that individuals/corporate bodies carry for business transactions on a daily basis. This study analysed the effects of the cashless policy on the agricultural activities of arable crop farmers in Egbeda Local Government, Oyo State. A descriptive research design was used for this study. The data source was primary, and valid responses were used through the interview schedule. A multi-stage sampling procedure was used to select 120 respondents. Data were analysed using frequency, percentage, mean, and Pearson's Product-Moment Correlation (PPMC) at  $p=0.05$ . The results revealed that respondents had an average age of 52 years, 6 persons per household, 21.9 years of farming experience, and 2.8 hectares of farm size. The cashless policy positively impacted areas of transparency of financial transactions ( $\bar{x}=3.78$ ), convenience of financial transactions ( $\bar{x}=3.77$ ), and effective management of financial records ( $\bar{x}=3.74$ ). However, on a negative note, it aided difficulties in accessing funds promptly due to technical issues ( $\bar{x}=3.68$ ). Respondents were able to cope with cashless policy difficulties by opening mobile banking accounts to make transactions (91.7%) and maintaining detailed records of financial transactions (85.0%). There was no significant relationship between engagement in the utilisation of the cashless policy and arable crop farmers' production in the study area. The study concluded that the cashless policy had brought about positive and negative effects on the finances of arable farmers. The study recommends more awareness, increased mobile/internet network coverage, and availability of more cash points to support arable crop farmers to adapt effectively to the cashless policy.

## INTRODUCTION

With over 84 million hectares of arable land, Nigeria is endowed with rich natural resources for agricultural production, including extensive arable land, abundant water resources, and a large domestic market. Nigeria possesses significant natural resources that support agricultural production, as indicated by Fagbuyi *et al.* (2023). The cashless policy introduced by the Central Bank of Nigeria (CBN) is a modernised strategy to develop a cashless economy by reducing the circulation of physical cash and promoting the use of electronic payment

systems. The goal is to create a more secure, efficient, and inclusive financial system by enhancing financial inclusion, curbing crime and corruption, and modernising the payment infrastructure to support economic growth. One of the prerequisites for the development of the national economy is to encourage a payment system that is secure, convenient and affordable (Kuma *et al.*, 2023). In this regard, developed countries of the World, to a large extent, are moving from paper payment instruments towards electronic ones (Kudama *et al.* 2021). A cashless economy, as defined by Taiwo *et al.* (2016) and Daniel, Swartz & Fermar (2004), is one where transactions

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are carried out electronically rather than with actual cash. It consists of the infrastructure involving institutions, instruments, rules, procedures, standards and technical means established to provide exchange of monetary value. The phrase "cashless economy" does not necessarily portray a system in which there is no physical cash; rather, it describes one in which there are very few cash transactions and greater adoption of credit/debit cards and data payments for goods and services (Omotunde & John-Dewole, 2013; Akhalume & Ohiokha, 2012; Adewale, 2012).

A cashless economy's effect on productivity for arable farmers hinges on multiple elements. Financial inclusion, cheaper deals, market links, and updated tools could meaningfully raise outputs. Yet unequal technology access and fraud/crash risks must be addressed so transitions go smoothly. Moreover, while productivity gains are feasible, realising potential demands, tackling digital divides and stability issues flagged by Nwachukwu and Nwogu (2022), along with the deeper agricultural uncertainties facing Nigerian smallholders. Given these dynamics, the research was focused on Egbeda Local Government Area in Oyo State. The nation's quest to migrate from cash to a cashless policy has been on the front burner. Analysts have predicted that to meet the target of becoming one of the leading World economies by the year 2020, efforts must be made to embrace the electronic payment system in its entirety. It was in this consciousness that the CBN, which is the apex regulatory body of the Banking Sector, came up with a form of policy to check the increasing dominance of cash in the banking sector in order to enhance the repayment system in the Economic landscape. Nigeria's preparedness in adopting this new policy has been questioned by stakeholders, given its socio-cultural milieu and other social vices associated with electronic inflation and stabilising currency (Umar *et al.*, 2023).

The lack of Unique National Identity System which makes it difficult to implement the policy efficiently and effectively, Inadequate infrastructure which ranges from network failure, inadequate Automated Teller Machine (ATM) and Point of Sales (POS) machines, The epileptic power supply which is critical to efficient electronic payment system will undoubtedly militate against the success of cashless policy, undue advantage by vendors on farmers, uneducated and poor sensitization has been a major challenge in a country where literacy rate is still very low, undue advantage by vendors on farmers, higher charges by Point of Sales (P.O.S.) operators, Poor timing and sequencing for both the policy and penalty which have strongly affected the Agricultural Economy (Obi, 2023). Investigation into productivity impacts, financial inclusion, market integration, technology adoption, and associated risks. Addressing these problem areas will provide valuable insights for policymakers, financial institutions, and agricultural stakeholders to navigate the transition towards a cashless system effectively and support sustainable agricultural productivity. Hence, this study assessed the effects of the cashless policy on the agricultural activities of arable crop farmers in Egbeda Local Government, Oyo State. Nigeria. The

general objective is to assess the effects of the cashless policy on the agricultural activities of arable crop farmers in Egbeda Local Government, Oyo State. The specific objectives of the study were to: (i) describe the socio-economic characteristics of the respondents, (ii) analyse the effects of cashless policy among the arable crop farmers, (iii) determine the arable crop farmers' engagement in the utilization of cashless policy, (iv) identify the coping Strategies used by arable crop farmers, and identify the challenges facing the arable crop farmers towards cashless policy. The Null Hypothesis tested in the study shows that: (H0<sub>1</sub>) There is no significant relationship between the utilisation of cashless policy and arable crop farmers' activities. (H0<sub>2</sub>) There is no significant relationship between the challenge to the adoption of cashless policy and arable crop farmers' activities.

## METHODOLOGY

### Study Area

The study was carried out in Egbeda Local Government Area of Oyo State, Nigeria. The Local Government is made up of about 40 local communities. It lies within latitude 7°22' N to 7°28' N and longitude 3°58' E to 4°08' E with its headquarters in the town of Egbeda. It covers a landmass of 185.508 square kilometres with a population density of 1722 persons per square kilometre. (Owoade *et al.*, 2019). The 2010 estimated population figure of the Local Government is put at 319,388 people based on a growth rate of 3.2% using the 2006 census figure. The local government area is subdivided into 11 wards: Erunmu, Ayede/Alugbo/Koloko, Owo Baale/ Kasumu, Olodan/Ajiwogbo, Olodo/Kumapayi I, Olodo II, Olodo III, Osegere/Awaye, Egbeda, Olode/Alakia, and Olubadan Estate. The Local Government Area share boundaries with Osun State to the east, Ibadan North Local Government Area to the north, Ibadan North East Local Government Area to the west, and Ona Ara Local Government to the south. It is dominated by the Yorubas and endowed with a wide expanse of land for the production of livestock and arable farming.

### Sampling techniques and sampling size

This study employed a descriptive research design. The researcher utilised primary sources of data. The study population comprised all arable crop farmers in the Egbeda Local Government Area of Oyo State, Nigeria, totaling 1206 individuals. The sample size consisted of 120 small-scale enterprises from the target population within the Egbeda LGA. The statistical formula developed by Borg and Gall (1973) was used to determine the sample size. Content validity was employed to ascertain the validity of the questionnaire. To check the instrument's reliability, the questionnaire was pre-tested through a pilot study to ascertain its effectiveness in eliciting the intended information. The researcher used the test-retest method to test the reliability of the research instruments. A Pearson product-moment correlation formula was administered, and a correlation coefficient was calculated,



yielding a score of 0.721, which indicates a high degree of reliability.

### Data Analysis

Data was analysed using descriptive statistics, including frequency counts, percentages, mean, and standard deviation for the objectives. Pearson Product-Moment Correlation (PPMC) were used to test the hypotheses.

## RESULTS AND DISCUSSION

### The arable crop farmer's engagement in the utilisation of the cashless policy

The result in Table 1 shows the mean value ( $\bar{x}$ ) of the respondents' engagement in the utilisation of the cashless policy. Findings reveals that peer-to-peer learning among arable crop farmers was with the mean ( $\bar{x}= 1.33$ ), easy connectivity among arable crop farmers for effective supply chains ( $\bar{x}= 1.19$ ), there is effective solution to difficulties experienced by arable crop farmers ( $\bar{x}= 1.18$ ), and awareness and education of arable crop farmers in utilization of cashless policy ( $\bar{x}= 0.99$ ) as the majority engagement in the utilization of cashless policy among the variable measure. This is an indication that most of the farmers learn from one another in the utilisation of cashless policy, which brings about connectivity and solves some solution from problems that may arise. As noted by Vimal *et al.* (2023) the spread of knowledge and adoption of new techniques occur among these kinds of farmers. Also, the majority of arable crop farmers have channels for connecting with each other, which could facilitate supply chain coordination (Fagbuyi *et al.*, 2023). Cashless policy has created challenges for most arable crop farmers in selling their produce (Ezeanolue, 2022). Furthermore, demonstration of usage of digital technology for transaction among arable crop farmers ( $\bar{x}= 0.99$ ) while creating mobile applications and platforms for arable crop farmers to enhance productivity ( $\bar{x}= 0.87$ ) and consistency with feedback from the arable crop farmers to the stakeholders ( $\bar{x}= 0.72$ ) was also regarded as the most engaging in the utilisation of cashless policy among the respondents sampled. This implies that building a platform for easy transaction of funds that farmers could easily understand will go a long way in helping their farming activities grow and improve. This suggests that most farmers have some familiarity with cashless systems, but may need more training and information to use them proficiently as required. Ezeanolue (2022) noted that expanded educational initiatives could benefit the minority with limited familiarity but most arable crop farmers' use digital technology for transactions at least sometimes. Moreover, over 60% of the 206.1 million Nigerians, who are mostly rural smallholders, are highly unbanked because the financial services sector is failing to meet the needs of this significant group, and as such, widening the gap in smallholders' demand for long-term/short-term agricultural financing (Otitoju *et al.*, 2023). As revealed by Fagbuyi *et al.* (2023), the cashless policy has had a notable impact on their agricultural productivity of arable crop farmers.

**Table 1: Distribution of respondents' engagement in the utilisation of the cashless policy**

| Variables                                                                                                         | Mean | Rank             |
|-------------------------------------------------------------------------------------------------------------------|------|------------------|
| Awareness and education of arable crop farmers on the utilisation of the cashless policy.                         | 0.99 | 4 <sup>th</sup>  |
| Demonstration of the usage of digital technology for transactions among arable crop farmers.                      | 0.92 | 5 <sup>th</sup>  |
| Usage of agricultural Infrastructural development by arable crop farmers, e.g. storage and processing facilities. | 0.56 | 9 <sup>th</sup>  |
| Partnerships with financial institutions in the provision of funds, e.g. banks                                    | 0.34 | 10 <sup>th</sup> |
| The provision of Incentives like fertilisers, seeds to farmers at a subsidised rate.                              | 0.63 | 8 <sup>th</sup>  |
| Creating Mobile applications and platforms for arable crop farmers to enhance productivity.                       | 0.87 | 6 <sup>th</sup>  |
| Peer-to-peer learning among the arable crop farmers.                                                              | 1.33 | 1 <sup>st</sup>  |
| Easy connectivity among arable crop farmers for effective supply chains.                                          | 1.19 | 2 <sup>nd</sup>  |
| Is there an effective solution to the difficulties experienced by arable crop farmers?                            | 1.18 | 3 <sup>rd</sup>  |
| Consistency with Feedback from the arable crop farmers to the stakeholders.                                       | 0.72 | 7 <sup>th</sup>  |

Source: Field Survey, 2023

### Effects of cashless policy on arable crop farmers

The result in Table 2 reveals the mean ( $\bar{x}$ ) effect of the cashless policy on arable crop farmers in the study area. Findings shows that cashless policy has positively impacted the transparency of your financial transactions with the mean of ( $\bar{x}=3.78$ ) while convenient to conduct transactions using digital payment methods due to the cashless policy was ( $\bar{x}=3.77$ ), followed by cashless policy has helped me in managing my financial records more effectively ( $\bar{x}= 3.74$ ) and they occasionally face difficulties accessing funds promptly due to technical issues related to the cashless policy ( $\bar{x}= 3.68$ ) as the major effect of cashless policy on arable crop farmers. The adoption of a cashless policy by these farmers was used to perform some tasks, as revealed in their effects. This implies that most arable crop farmers believe adopting cashless systems like mobile money, bank transfers, and digital payments has made their financial transactions more transparent and open (Fagbuyi *et al.*, 2023). Studies show that cashless policy has facilitated more convenient digital payment transactions for most farmers (Soom *et al.*, 2024; Olaniyi and Sanusi, 2021). As noted by Kuma *et al.* (2023) that on average, farmers reportedly face technical difficulties accessing funds somewhere between occasionally and rarely due to the cashless policy.



**Table 2: Effects of Cashless Policy on Arable crop farmers**

| Variables                                                                                                            | Mean | Rank             |
|----------------------------------------------------------------------------------------------------------------------|------|------------------|
| Convenient to conduct transactions using digital payment methods due to the cashless policy.                         | 3.77 | 2 <sup>nd</sup>  |
| Cashless policy has positively impacted the transparency of your financial transactions.                             | 3.78 | 1 <sup>st</sup>  |
| I always have issues with delayed payments when receiving funds digitally due to the cashless policy.                | 2.94 | 8 <sup>th</sup>  |
| During the cashless policy, I was able to track my financial transactions more effectively.                          | 3.63 | 5 <sup>th</sup>  |
| I occasionally feel more secure about my financial transactions as a result of the cashless policy's implementation. | 3.42 | 6 <sup>th</sup>  |
| Cashless policy has helped me in managing my financial records more effectively.                                     | 3.74 | 3 <sup>rd</sup>  |
| I occasionally face difficulties accessing funds promptly due to technical issues related to the cashless policy.    | 3.68 | 4 <sup>th</sup>  |
| Cashless policy has hindered my overall financial security as an arable crop farmer.                                 | 2.96 | 7 <sup>th</sup>  |
| Cashless policy has negatively impacted my overall income as an arable crop farmer.                                  | 2.70 | 12 <sup>th</sup> |
| I perceive the cashless policy as a hindrance to the traditional farming practices that involve cash transactions.   | 2.77 | 10 <sup>th</sup> |
| Cashless policy has not helped me in managing my financial records more effectively.                                 | 2.78 | 9 <sup>th</sup>  |
| Inconvenient to conduct transactions using digital payment methods due to the cashless policy                        | 2.73 | 11 <sup>th</sup> |

Source: Field Survey, 2023

#### **Categorisation of effects of cashless policy on the agricultural activities of arable crop farmers**

The results from Table 3 revealed that the majority (86.0%) of the respondents had positive effects of the cashless policy on agricultural activities of arable crop farmers in the study area and this could be due to the facts that the respondents feels that cashless policy had positively impacted the transparency of their financial transactions, convenient to conduct transactions using digital payment method due to the cashless policy, cashless policy helped them in managing their financial records more effectively and they occasionally face difficulties accessing funds promptly due to technical issues related to the cashless policy.

**Table 3: Categorisation of effects of cashless policy on agricultural activities of arable crop farmers**

| Score range | Status   | Frequency | Percentage |
|-------------|----------|-----------|------------|
| 12 -35      | Negative | 16        | 13.0%      |
| 36 – 60     | Positive | 104       | 86.0%      |

Source: Field Survey, 2023

#### **Challenges facing arable crop farmers towards a cashless policy**

The result from Table 4 reveals the mean ( $\bar{x}$ ) challenges facing arable crop farmers towards the cashless policy. Findings shows that none easy access to financial support from government and transaction charge costs and fees with the mean ( $\bar{x}$  = 1.60) ranked first respectively, while limited access to technology and infrastructure was ( $\bar{x}$  = 1.48), followed by lack of digital literacy on the usage of mobile phone to access information ( $\bar{x}$  = 1.22) and unreliable mobile network coverage ( $\bar{x}$  = 1.14) as the major challenges facing arable crop farmers towards cashless policy. This shows that arable crop farmers found it relatively difficult to access government financial support through cashless means. As noted by Lisana (2021) that over one-third still experienced challenges accessing support without cash. Any means of additional costs make it harder for farmers to invest in things like seeds, equipment, labour, etc., that can improve productivity (Pipitwanichakarn & Wongtada, 2020). This shows that the vast majority of arable crop farmer' income is dependent on selling their agricultural produce through collecting cash rather than relying on a cashless policy. Therefore, policies that affect their ability to receive or make payments for their produce could significantly impact their livelihoods.

**Table 4: Challenges facing arable crop farmers towards a cashless policy**

| Variables                                                                                                            | Mean | Rank             |
|----------------------------------------------------------------------------------------------------------------------|------|------------------|
| Limited access to technology and infrastructure                                                                      | 1.48 | 3 <sup>rd</sup>  |
| No easy access to financial support from the government                                                              | 1.60 | 1 <sup>st</sup>  |
| Lack of digital literacy in the usage of mobile phones to access information                                         | 1.22 | 4 <sup>th</sup>  |
| Digital infrastructure in rural areas, e.g. mast, agricultural equipment, water system                               | 0.98 | 8 <sup>th</sup>  |
| Transaction charge, cost and fees                                                                                    | 1.60 | 1 <sup>st</sup>  |
| Risk of a cybersecurity threat, e.g theft through exposure of the security pin                                       | 0.99 | 7 <sup>th</sup>  |
| Cultural and behavioural factors in using digital technology to make transactions                                    | 0.84 | 10 <sup>th</sup> |
| Unreliable mobile network coverage                                                                                   | 1.14 | 6 <sup>th</sup>  |
| Poor record-keeping and documentation                                                                                | 0.94 | 9 <sup>th</sup>  |
| Seasonal and irregular income from agricultural produce through environmental factors like erosion, land degradation | 1.22 | 4 <sup>th</sup>  |

Source: Field Survey, 2023



### Testing of the hypothesis

The result of the hypothesis in Table 5 shows that there is a significant relationship between the utilisation of cashless policy and arable crop farmers with the use of cashless payments and productivity. This implies that the cashless policy affects the outputs of the arable crop farmers. Also, the result of the hypothesis shows that there is a significant relationship between the challenges/effects of cashless policy and the agricultural activities of arable crop farmers in the study area, which was tested using Pearson's Product-Moment Correlation. This implies that a cashless policy does affect the productivity of arable crop farmers. It is clear that for an economy to achieve its desired outcome, there must be easy access to the mobilisation and circulation of funds within all levels of the economy. This can only be achieved with a robust and functional banking system and inclusive financial services available to everyone in that economy. Other studies that corroborate the findings of this study are Onaolapo (2015), Olaniyi and Babatunde (2016), and Onalo *et al.* (2017). They all agree that financial Inclusion can be achieved through cashless transactions and, in the end, improve the economic growth in Nigeria.

**Table 5: Relationship between engagement in the utilisation of cashless policy and arable crop farmers' production**

| Variable                                             | r-value | p-value | Decision    |
|------------------------------------------------------|---------|---------|-------------|
| Engagement in the utilisation of the cashless policy | 0.355   | 0.000   | Significant |
| Challenges and effects of the cashless policy        | 0.300   | 0.001   | Significant |

Source: Field Survey, 2023

Decision criteria: Reject null hypothesis if  $p \leq 0.05$ , accept null hypothesis if  $p > 0.05$

### CONCLUSION AND RECOMMENDATIONS

In conclusion, this study provides important insights into the effects of the cashless policy on the agricultural activities of arable crop farmers in the Egbeda Local Government Area. The findings reveal that peer-to-peer learning occurs among arable crop farmers, fostering connectivity in their usage, which could aid the transfer of knowledge about the cashless policy. Some noted problems or difficulties were easily solved, among them, enhancing awareness, teaching, and the utilisation of the cashless policy by arable crop farmers. Most arable crop farmers feel the impact of the cashless policy on their specific agricultural production, and the results reveal that the majority still experience a positive effect from the policy. There are challenges facing arable crop farmers in implementing the cashless policy, which require urgent solutions to reduce farmer stress and financial loss. The wariness of financial service providers regarding the high-risk, high-cost nature of agro-ventures has limited productivity among underserved

population segments/vulnerable groups such as smallholder farmers, creating the need to improve access to financial services for the underserved population.

Based on the outcomes of this study, the following recommendations are made as follows:

- Arable crop farmers must drastically alter their behaviour to adopt and use digital banking services.
- The development of suitable financial products and packages will encourage arable crop farmers to diversify their farming activities.
- Comprehensive training and support services may be needed to enable arable crop farmers to effectively utilised the cashless policy.
- Good network coverage should be provided in rural areas to eradicate failures in cash transactions caused by network providers.
- Improvement in infrastructure facilities in the rural setting is paramount, as this will enhance the easy adoption of innovation by rural farmers.
- Thus, extension agents should conduct surveys with a representative sample of arable crop farmers in Egbeda to understand their current banking and digital literacy levels, access to technology, trust in digital systems, and opinions on potential benefits/challenges of a cashless system.

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### Authors' Contributions

Authors OAA & ASA wrote the first draft of the manuscript, managed data collection, interpretation of data, writing of manuscript, material support, and review of manuscripts. Authors FOO & ASA managed the literature searches, development of methodology, interpretation of data, data coding and analysis. All authors read and approved the final manuscript.

### Ethical Statement

Not applicable

### REFERENCES

- Adewale, A. A. (2012). Evaluating the systemic transition to a cashless economy in Nigeria. Social Science Research Network. Social Science Electronic Publishing, <http://dx.doi.org/10.2139/ssrn.2050657>
- Akhalume, P. B., & Ohiokha, F. (2012). Nigeria's Cashless Economy: The imperatives. *International Journal of Management & Business studies*. 2(2):31-37. <https://ijmbs.com/22/akhalumeh.pdf>



- Daniel, D. G., Swartz, R. W., & Fermar, A. L. (2004). Economics of a Cashless Society: An Analysis of Costs and Benefits of Payment Instruments, AEI-Brookings Joint Center. <http://www.aei.org/articles/the-aei-brookings-joint-center-for-regulatory-studies/>
- Ezeanolue, E. T. (2022). The effect of the cashless economy on the performance of small-scale enterprises in Anambra State. *Anspoly Journal of Innovative Development (AJID)*, 1(2), 143-161. <https://journal.anspolyjoid.org.ng/index.php/ajid/article/view/19>.
- Fagbuyi, A. O., Adegbola, E. A., Chukwuma, N. N. & Alabi, J. A. (2023). Attitudes of Artisans on Cashless Policy Adoption in Ado Ekiti, Ekiti State, South West, Nigeria. *Renaissance University Journal of Management and Social Sciences*, 9(1): :224-238.
- Kudama, G., Dangia, M., Wana, H., & Tadese, B. (2021). Will Digital Solutions Transform Sub-Saharan African Agriculture? *Artificial Intelligence in Agriculture*, 5, 292–300. <https://doi.org/10.1016/j.aiia.2021.12.001>
- Kuma, S. S., Umoh, D. B., Asogwa, T. H., Uzochukwu, A., Ezebuilo, R. U., Asogwa, K. A., & Azu, B. (2023). Access to credit and financial services on marketing of farm produce in Benue State, Nigeria. *Journal of African Studies and Development*, 15(2), 36–45. <https://doi.org/10.5897/jasdev2023.0681>
- Lisana, L. (2021). Factors influencing the adoption of mobile payment systems in Indonesia”, *International Journal of Web Information Systems*, 17(3), 1-10. <https://doi.org/10.1108/IJWIS-01-2021-0004>
- Nwachukwu, D., & Nwogu, C. U. K. (2022). Monetary Policy and Marketing Performance of Businesses in Port Harcourt: A Case of Naira Redesign in 2022. *International Academy Journal of Management, Marketing and Entrepreneurial Studies*, 9 (1): 191-213.
- Obi, Y. M. V. (2023). E-payment Administration and the Growth of Small and Medium Enterprises (SMEs) in Southeast Nigeria: An Evaluation of Cashless Policy. *Global Journal of Political Science and Administration*, 11(2), 42-57. <https://doi.org/10.37745/gjpsa.2013/vol11n24257>.
- Olaniyi, E. & Babatunde, A. (2016). Determinants of Financial Inclusion in Africa: a Dynamic Panel Data Approach. *University of Mauritius Research Journal*, 22, 1 – 23. <https://doi.org/10.6084/M9.FIGSHARE.3409738>.
- Olaniyi, O. A., & Sanusi, W. A. (2021). Cashless Policy and Financial Inclusion of Smallholder Maize Farmers in Nigeria. *Heliyon*, 7(8). <https://doi.org/10.1016/j.heliyon.2021.e07840>
- Omotunde, M., Sunday, T., and John-Dewole AT. (2013). Impact of cashless policy in Nigeria. *Greener Journal of Internet, Information and Communication Systems*. (1) 2:40-43. <https://gjournals.org/JIICS/archive/vol-12april-2013/omotunde-et-al.html>.
- Onalo, R., Lizam, L. & Kaseri, J. (2017). Financial Inclusion and the Nigerian Economy: Empirical Evidence; *Asian Journal of Economics, Business and Accounting*, 4(4); 1 – 10. <https://doi.org/10.9734/AJEBA/2017/26842>.
- Onaolapo, A. R. (2015). Effects of Financial Inclusion on the Economic Growth of Nigeria 1982 – 2012, *International Journal of Business and Management Review* 3 (8), 11 – 28.
- Otitoju, M. A., Adelere, O. E., Akinbola, A. O., & Abah, E. G. (2023). Implications of Digital Financial Inclusion for Smallholder Farmers in Nigeria: A Review. *International Journal of Social Science and Humanities Research*. 11(3): 152-157. <https://doi.org/10.5281/zenodo.8276200>.
- Owoade L. R., Oyeyemi, S. M., Lawal, F. A., Adeyemo, A. J., Adamoh, N. O., & Adebawale, F. M. (2019). Assessing naturally occurring radionuclides in soil of Egbeda Local Government for baseline data of Oyo State, Nigeria. *Radiation Protection and Environment*, 42:90-95.
- Pipitwanichakarn, T., & Wongtada, N. (2020). The role online review on mobile commerce adoption: an inclusive growth context. *Journal of Asia Business Studies*, 14(5), 759–778. <https://doi.org/10.1108/JABS-02-2019-0060>
- Soom, A., Humbe, I. T., & Musa, A. U. (2024). Impact of Cashless Policy Enforcement and Naira Redesign on Fresh Catfish Marketing in Makurdi Local Government Area of Benue State, Nigeria. *Nigerian Journal of Agriculture and Agricultural Technology*, 4(1), 92–99. <https://doi.org/10.59331/njaat.v4i1.631>
- Taiwo, J. N., Ayo, K. O., Afieroho, E. O. & Agwu, M. E. (2016) Appraisal of Cashless Policy on the Nigerian Financial System. *West African Journal of Industrial and Academic Research*, 16(1): 106-126.
- Umar, H. A., Musalli, N. M., & Yusuf, Y. A. (2023). Impact of Cashless Policy on the Performance of Small and Medium Scale Enterprises in Bauchi Metropolis. *International Academic Journal of Management and Marketing*, 10(10), 17-29. <https://www.arcnjournals.org/images/673214256610102.pdf>.
- Vimal, R. L., Amilan, S., & Apama, K. (2023). Developing and validating a cashless transaction adoption model (CTAM). *Research Square*, January 25. <https://doi.org/10.21203/rs.3.rs-2510615/v1>.

