



World News of Natural Sciences

An International Scientific Journal

WNOFNS 56 (2024) 67-83

EISSN 2543-5426

Impacts of cashless and recent Naira redesign policy implementation on horticultural activities in Kano State, Nigeria

A. O. Salami^{1,*}, M. S. Suleiman², and E. A. Shittu³

¹ Forestry Research Institute of Nigeria, Upland Forest Research Station, Gombe, Nigeria

² Department of Agricultural Economics and Extension, Bayero University, Kano, Nigeria

³ Department of Agronomy, Bayero University, Kano, Nigeria

*E-mail address: faunia717@yahoo.com , niyisalamioutreach@gmail.com

ABSTRACT

The cashless and recent Naira redesign policy in Nigeria caused untold hardship to the people due to scarcity of the banknotes, as the CBN was unable to meet the peoples' demand. This led to a cash crisis in the rural and urban areas of the country, with long queues at banks and ATMs. The development triggered frustration and climaxed into grievance protests among bank users. In view of these, a survey was conducted to analyze the impacts of this policy on horticultural crop business in Kano State, Nigeria. Using a multi-stage sampling technique, data from 160 respondents were collected through structured interviews and on-site assessments to ensure a comprehensive understanding of the policy's impact on the people, while the sampling technique ensured that both urban and rural horticultural activities were represented. Findings revealed that ornamental gardens in the urban areas benefited from market advantages, while rural fruit orchards faced significant challenges due to the policy changes. Horticultural crops had markets not only within but also outside the state, and the neighbouring and other foreign countries. The transition from cash-based to cashless transactions led to significant disruptions in horticultural supply chains, with noticeable declines in distribution efficiency. This gross deficit undermined its contributions to economic growth, with key issues recognized as low managerial skills, lack of access to modern technology, poor funding and deplorable business environment. Massive campaigns on the necessity of the cashless policy amidst the current global context, the need to strengthen the performance of the SMEs with enhanced business environment, improvement in financial inclusion, and increasing access to modern technology were recommended as sustainable insulators in future policy-induced or natural calamities.

Keywords: Business environment, Cash crisis, Cashless policy, Digital currency, Economic growth, Economic guidelines, Forced adaptation, Naira redesign, SMEs

1. INTRODUCTION

Cashless economy is a financial system where transactions can be made without necessarily carrying physical cash as means of exchange in business and communication deals, but rather with the use of credit or debit card payment system for goods and services. Many countries, including Norway, the United Kingdom, Netherlands, Finland, China, and Sweden, have successfully transitioned to cashless economies. Sweden, however, is the most cashless society in the world, with just 32 Automated Teller Machines (ATMs) in operation per 100,000 people, and with more than 98% of its citizens owns a debit/credit card, and over 85% of all transactions now made electronically (Joanna England, 2022). This has resulted in the creation of novel financial solutions such as instantaneous mobile payment systems, and even a national digital currency.

Available data from the Central Bank of Nigeria (CBN) however indicated that 2.73 trillion Naira out of the 3.23 trillion currencies in circulation were outside the banking system, and supposedly held by members of the public (Omotunde *et al.* 2013). In Nigeria, the Central Bank initiated the cashless policy in March 2012, setting limits on free cash withdrawals and deposits. This policy culminated in the redesign of the Naira notes in October 2022, affecting the 200, 500, and 1000 denominations. Yet, it was a move to improve the financial terrain in the country, and conversely, sustainability of the policy became a function of endorsement and compliance by end-users (Okoye, Ezejiofor, 2013). Currency redesign however refers to the monetary policy process of changing the design, security features, and other characteristics of a country's currency.

Historically, the redesign of the Naira started in the last 40 years. In 1973, the Naira was changed from metric to decimal which precipitated the change from pounds to Naira and kobo. In 1977, the highest denomination then of 20 Naira note was introduced. In 1979, the government minted the 1, 5, and 10 Naira notes. In 1984, a similar reason in line with the recently announced CBN policy to issue new banknotes as regards ameliorating the rate of trafficking and counterfeiting precipitated the change of all banknote colours. During President Olusegun Obasanjo's regime, the 100 Naira was introduced to the economy for circulation in 1999, and the 200, 500, and 1000 Naira notes were also introduced in the year 2000, 2001, and 2005 respectively. Furthermore, on 30th September, 2009, following the successful money supply and performance of the 20 Naira (polymer) banknote, the CBN redesigned and converted the 50, 10, and 5 Naira banknotes into polymer substrates (Ndukwe, 2023).

Consequently, the recent policy was aimed at driving the objectives of the country's ongoing migration from a cash-dominated economic environment to an electronic payments market system, otherwise known as the cashless economy. Moreover, the main objectives of the recent cashless policy and currency redesign, according to the Central Bank Governor, were to make monetary policy decisions more effective, deepen financial inclusion in the country, curb terror financing and banditry, and discourage vote-buying and money laundering by politicians, among others (Iwedi *et al.* 2023). Bank transfers, credit card payments, mobile payments and digital wallets are however examples of cashless payments.

Moreover, the policy has passed through different stages of implementation since it was recently reintroduced via a circular to financial institutions on December 6, 2022 by the CBN (Bella, Oguntuase, 2023). This caused Nigerians untold hardship due to scarcity of the banknotes, as the CBN was unable to meet the peoples' demand, leading to a cash crisis in the rural and urban areas of the country, with long queues at banks and ATMs. The development triggered protests and frustration among bank users who took to the streets to express their grievances. Yet, many Nigerians and several businesses had a hard time in performing their legitimate functions effectively due to difficulties in getting the new cash-notes.

Consequently, in the midst of very high cash scarcity and acute sufferings for Nigerians, the initial deadline, for which the redesigned 200, 500 and 1000 banknotes were to cease being legal tenders was earlier fixed for January 31, but extended to February 10, 2023. Prior to this, the CBN had by a circular dated January 20, 2023 launched a cash-swap programme in the rural and underserved areas in partnership with Super Agents and Deposit Money Banks (DMBs) (Bella, Oguntuase, 2023). Under this arrangement, citizens in the areas could exchange the old notes for the new banknotes or their equivalent values in the lower denominations not affected by the redesign policy. This cash swap programme which became effective on January 23, 2023, was expected to last till the CBN-announced deadline of February 10, 2023 (Okafor, 2023). The scenario affected mostly the small and medium enterprises (SMEs) which recorded huge losses due to the scarcity. Amongst these SMEs that were affected was the horticultural business, which suffered great shock because of the fragility of its products, which sales is time specific, or else, they stands to perish out of time span, and if lesser care persists.

Therefore, horticulture is a branch of agriculture dealing with production, processing, storage and marketing of fruits, vegetables, spices and ornamental plants (Akintoye *et al.* 2018). Nonetheless, the shift to a cashless economy and recent Naira redesign in Nigeria aims to modernize financial transactions and improve financial inclusion, reduce money laundering, curb terror financing, and other economic issues. However, its implementation caused significant disruptions, particularly in horticultural businesses that rely heavily on timely transactions. This paper therefore explores how these changes impact horticultural businesses in Kano State, Nigeria, focusing on supply chain disruptions and market response.

1. 1. The Study Area

The study was carried out within Kano State - Nigeria, which is situated between longitude 8° W to 10° W and latitude 11° N to 13° N, located in the Sudan savanna Agro ecological zone of Nigeria. The state was selected for the exercise because of its vast land area, large population, and favorable conditions for horticulture. The state has a population of approximately 15.93 million people as projected in the year 2023. With a population density of about 649.6 individuals/km² (Gaya *et al.* 2023), it occupies a land mass of about 20,131 km², and is on an elevation of 488 m above the sea level, **Table 1**.

Rainfall is between May and October, but stable for about 4 months between June and September, approximately 510-1140 mm. per annum, with an average of 125 mm. Relative humidity is low and temperature varies between 14 °C and 38 °C, amid an annual average of 35 °C, typical of Sudan Savannah ecosystem; having less trees, but shrubs, and scanty grasses. These climatic conditions support the cultivation of fruits, vegetables, spices, and ornamental plants for local consumption and export, as economic activities are majorly trading and retailing services; and the economic problems are poverty and insecurity, with agriculture mainly at subsistence level. Furthermore, over 80% of the populace is engaged in subsistence farming

and animal husbandry; the reason why the zone is considered agrarian, as majority of the working adults engage in agriculture as a means of livelihood.

2. REVIEW OF PERTINENT LITERATURE

A review of global and local literature however highlights that cashless policy often lead to significant disruptions in small-scale agricultural sectors, similar to those experienced in Kano State. Previous studies have documented both challenges and benefits of transitioning to electronic transactions in agricultural economies. Global examples of cashless economies show mixed impacts on small businesses.

Table 1. NPC Demographic Figures of the Study Areas with 2006 Population Census

S/N	LGAs	Land Areas (Km ²)	Population Figures	Coordinates
1	Nassarawa	34	596,669	11°98’N and 8°56’E
2	Ajingi	714	174,137	11°58’N and 9°02’E
3	Gwale	18	362,059	12°25’N and 10°04’E
4	Gwarzo	397	183,987	11°55’N and 7°50’E
5	Dambatta	732	207,968	12°26’N and 8°30’E
6	Ungogo	204	369,657	12°5’N and 8°29’E
7	Bunkure	487	170,891	11°42’N and 8°33’E
8	Kumbotso	158	409,500	11°55’N and 8°30’E

Source: NPC (2006)

However, Sweden which is the most cashless society, has developed innovative financial solutions (Joanna England, 2022), while Nigeria's cashless policy, with 2.73 trillion Naira outside the banking system, faces unique challenges (Omotunde *et al.* 2013). Studies further indicate that transitioning to electronic transactions can disrupt traditional business practices, particularly in agriculture. In essence, Agwu, Ezeanic (2021) posited that the adoption of cashless policy in doing business has been slow among small business operations in developing countries specially Nigeria, due to insufficient financial inclusion, wobbly power supply, unbanked masses and financial literacy level of business owners, as well as the costs of acquiring and maintaining electronic devices, as traced to Kingsley (2017) and admitted in Ihenyen, Yeitaribo (2024) reports. However, Herman and Anna, (2023) opined that the Cashless policy is an economic and monetary policy that provides opportunities for SMEs to conduct business without involving huge cash or reduced volume of money and enabling transactions to take place with little or no contact by the parties involved.

Furthermore, Ihenyen, Yeitaribo (2024) emphasized that the introduction of cash withdrawal limits via digital platforms, non-availability of constant supply of electricity to power the electronic payment system, and attitude of Nigerians to new technology has made the situation more disturbing and frustrating for SMEs especially in the rural and semi-urban areas, and as well increased the costs of doing business. Additionally, Gyamfi-Yeboah *et al.* (2019) conducted a study to examine the effects of digital payment system on SME's performance. This study helps the owner of SME's to execute the digital payment system towards fostering trade and relationship with other stakeholders, as Ihenyen, Yeitaribo (2024) postulated the advantages to mobile banking to include the ability to bank anywhere and at any time, but the disadvantages that include security concerns and a limited range of capabilities when compared to banking in person or on a computer.

3. METHODOLOGY

The study was conducted in two segments as sampling frame. These are within and outside the Kano metropolitan. The Kano metropolis however comprise of 8 Local Government Areas (LGAs) out of the total 44 in the state, while the remaining 36 LGAs are outside the metropolis. The Kano Municipal, Nassarawa, Dala, Fagge, Gwale, and Tarauni constitute the core-urban LGAs within this metropolis, while Kumbotso and Ungogo which almost encircled the municipality are the two peri-urban LGA components of the conurbation. Out of these massive LGAs therefore, 4 each were systematically selected from within and outside the metropolis, having 2 LGAs from each of the 4 cardinal locations of the state as sampling areas. Nassarawa and Ajingi LGAs were selected to the east; Gwale and Gwarzo to the west, Ungogo and Dambatta to the north, as well as Kumbotso and Bunkure to the south, combined and interweaved within and outside the Kano metropolis respectively (**Fig. 1**).

3.1. Sampling Technique and Sample Size

A multi-stage sampling technique was used, snowballing into 2 sampling frame (within and outside the Kano metropolitan), 4 sampling areas (LGAs), and 3 sampling units (farms, gardens, or respondents) from each of the 2 sampling frame. Varieties of ornamental gardens, vegetable gardens, and homestead gardens were the sampling units enumerated within the metropolis, but fruit orchards, vegetable gardens, and homestead gardens outside the conurbation. A total of 20 respondents were involved from each of the selected 8 LGAs, making a total of 160 respondents at random. The enumeration was purposeful, and accomplished using clustered sampling. Data were collected through structured interviews and on-site assessments to ensure a comprehensive understanding of the policy's impact, while the sampling technique ensured that both urban and rural horticultural activities were amply represented.

The Kano metropolis where ornamental gardens, homestead gardens and vegetable gardens were explored comprised of Ungogo, Kumbotso, Gwale, and Nassarawa LGAs. Thereafter, 12 sampling units from each of these sampling areas were covered for ornamental gardens, while 4 units each were also covered for homestead and vegetable gardens respectively.

Moreover, outside the metropolis which comprised of Ajingi, Gwarzo, Dambatta, and Bunkure LGAs, 12 sampling units were as well enumerated for fruit orchards, whilst 4 sampling units each were enumerated for homestead and vegetable gardens respectively (**Fig. 2**).

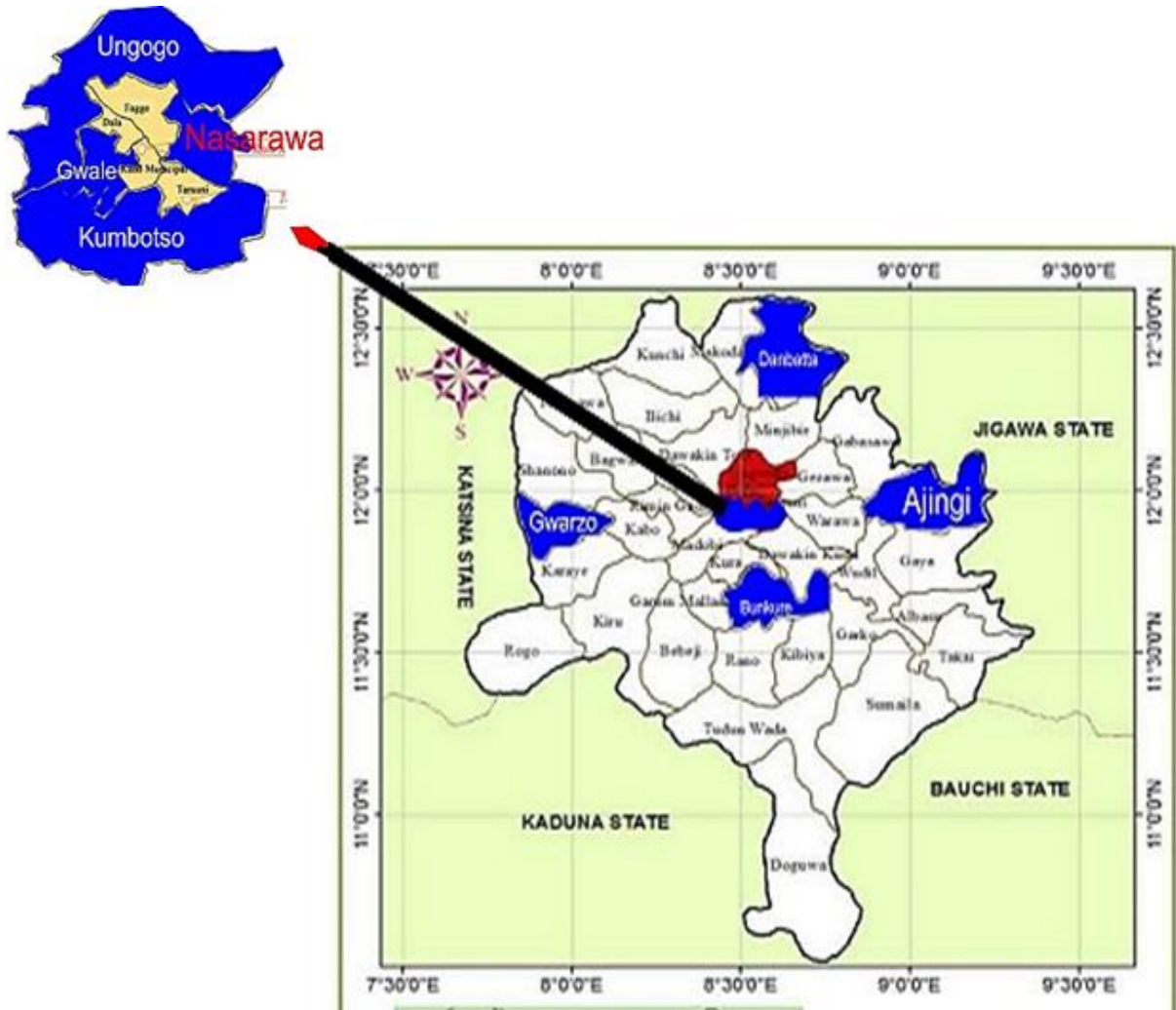


Fig. 1. Map of the study area

4. RESULTS AND DISCUSSION

4. 1. Proliferation and Description of Horticultural Business Enterprises in the State

Ornamental, vegetable and homestead gardens, alongside with fruit orchards were the various horticultural businesses recorded within the SMEs of the sampling areas. Ornamental gardens were however mostly available within the metropolis, but fruit orchards outside the metropoltan, while vegetable and homestead gardens were in the two locations.

Moreover, the study found that ornamental gardens in urban areas thrived due to market advantages, while rural fruit orchards faced significant disruptions. This is because, demand for ornamental plants and higher market environment were more abundant in the metropolitan than the outside (Abdulhamid, 2016). Likewise, despite the availability of more expansive land areas for the establishment of fruit orchards and vegetable gardens outside the Kano city areas, the limited population therein is the hindrance (Salami and Nwadike, 2020). Additionally, 12 sampling units were allocated for each of the ornamental gardens and fruit orchards against

homestead and vegetable gardens having 4 each in the exercise. This is because the former were abundantly operated and vaster than the latter set at both the metropolis and outside of it respectively.

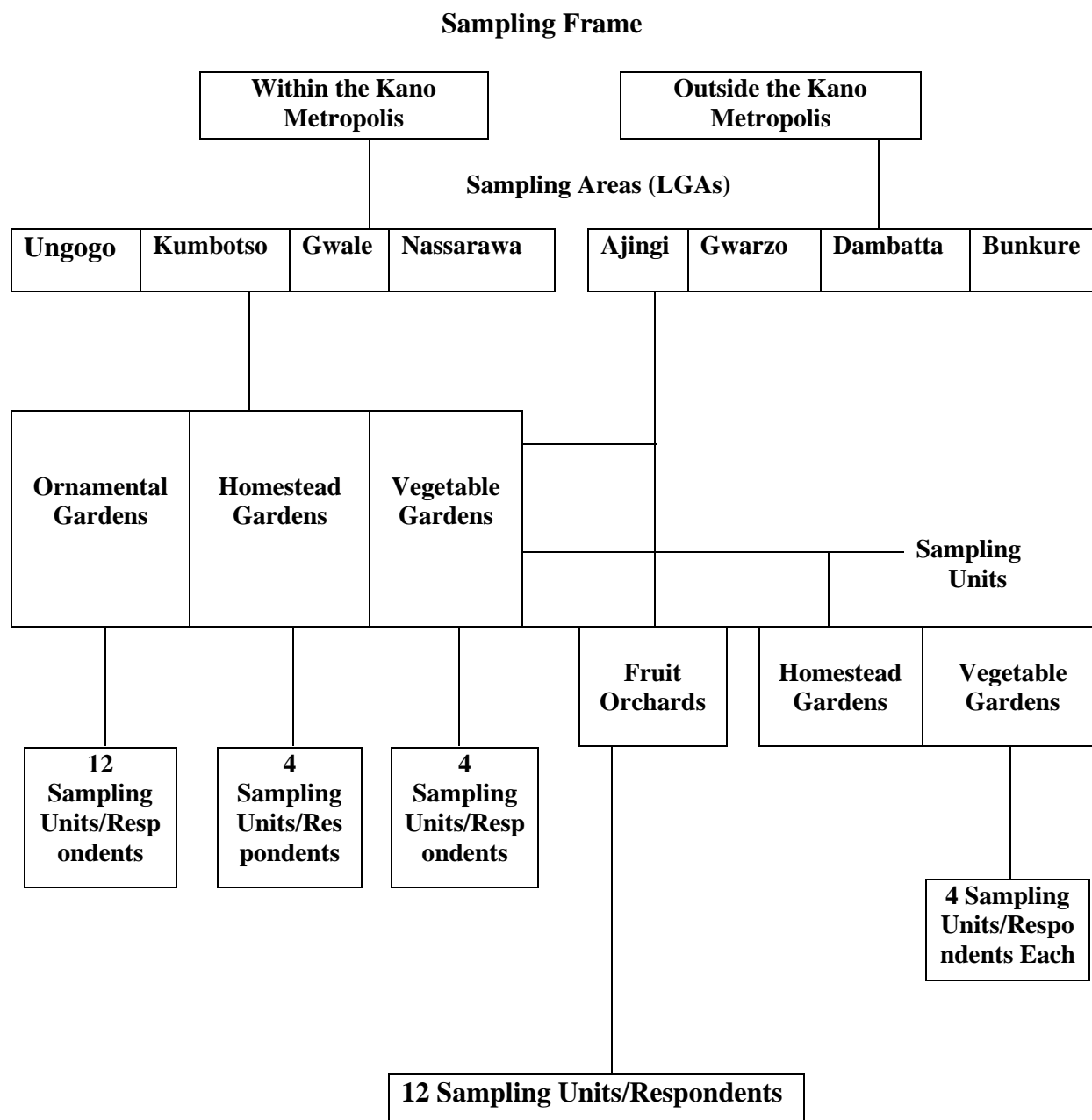


Fig. 2. Diagrammatic Elucidation of Sampling Size.
Source: Field Survey, 2023.

SMEs in ornamental gardens were specifically into the production, sales and services related to ornamentals and other assorted plants. These, include shade trees such as *Terminalia mentalis* *Terminalia cattappa* *Ficus benjamina* and other evergreen plant species according to

reports. There were also carpet grasses of local and exotic brands. Other products include flower pots made of cement, earthen, and ceramic, as well as potted plants, protective baskets; and rubber-woven baskets for hanging plants, among other plants accessories. The business operators were also engaged in landscaping and home ornamentation jobs with the private, government agencies and Non Governmental Organizations (NGOs), foreign personalities; as well as serving as farm house developers, among other activities. They were also into aesthetic stone decoration, garden huts design and fabrication, lawns establishment and maintenance, among other domestic aesthetics (**Fig. 3**). These were confirmed in Abdulhamid (2016) that Kano State was very rich in ornamental plant operators and ornamental plant accessories through the various commercial gardens in the metropolis; as well as Akintoye *et al.*, (2018) reports which indicated that various assorted ornamental plants and their accessory components in commercial nurseries operational in the urban centres keeps to the welfare of ailing youths for productive economy in Nigeria.

Also, the available common plants in the various orchards enumerated include *Citrus species* (Lemon) and *Mangifera indica* (Mangoes), *Musa species* (Banana and Plantain), as well as *Punica granatum* (Ruman) and other varieties of *Ficus species*. These were grown in the various enumerated areas outside the metropolis mostly for the markets, and was described by Konnert *et al.* (2015) as the plantation of fruit or nut-producing trees or shrubs grown as foods for commercial or personal consumption in an open landscape. However, these horticultural products were cultivated for self sufficiency and cash supplements, according to respondents; which were cultivated on germination beds, either raised up or on flat surfaces. This activity was described by Salami and Nwadike (2020) as suitable cash supplements in the off- farm seasons.



An Enterprise Indicator



Stones & Plastic Pots



Decorative Cement Pots



Earthen and Ceramic Pots



Earthen Pots



Protective Baskets



Ornamental Hedge Plants



Fruiting Potted Citrus



Homestead Gardens



Vegetable Gardens



Fruit Orchard

Fig. 3. Some of the Products for Servicing Customers.
Source: Field Survey, 2023

Furthermore, spinach, tomatoes, pepper, lettuce cabbage, salad, sauces, condiments, spices, soup ingredients, and a host of other fresh green foods were the products encountered in the vegetable and homestead gardens during the exploration, alongside some industrial raw

materials. These include *Punica granatum* (Pomegranate/Ruman), *Vitis vinifera* (Grapevine), *Annona squamosa* (Custard apple), *Solanum lycopersicum* (Tomatoes) *Capsicum species* (Peppers) and *Musa species* (Banana and Plantain), etc. Konnert *et al.* (2015) report further informed of the importance of forest reproductive materials as vegetables and fruits for nutrient supplements in the eve of climate change in Europe, while Salami and Nwadike (2020) hinted on the cultivation and utilization of *Moringa oleifera* as diet supplement for multipurpose utilization.

4. 2. Marketing of Horticultural Products

Horticultural products were marketed within and outside the Kano State, including most parts of the country and its neighbours, as well as exported into Europe, America, and other foreign countries. Abdulhamid (2016) and Akintoye *et al.* (2018) further informed that marketing of ornamental plants and other horticultural crops were not limited to Kano, but also across the frontiers of neighbouring and overseas countries.

4. 3. T-test analysis on supply chain and distribution efficiency of horticultural crops

The average weekly supply ratio before and during the cash crisis was 3.5:1, indicating a sharp decline in distribution efficiency. The t-test analysis further showed significant differences in the impact on different horticultural activities enumerated. The t-values of 3.16 and 5.40 with ornamental and homestead gardens; and 2.81 and 4.75 with fruit orchards and vegetable gardens featured respectively, when alpha is 0.05 (**Table 2**). The comparison of these p-values to the alpha level indicates marginal to significant differences in the means before and during the cash crisis for all horticultural activities. This suggests that the cashless and Naira redesign policies had notable impacts on these activities and that significant differences existed within the supply and distribution channels of the horticultural products before and during the cash crisis.

Table 2. Supply and distribution of horticultural plants before and during the cash crunch in harvest days per week with a t-test analysis.

Horticultural Activities	Mean Before Crisis (M1)	Mean After Crisis (M2)	Standard Deviation Before Crisis (SD1)	Standard Deviation After Crisis (SD2)	Sample Size (N)	t-Value	p-Value
Ornamental Gardens	3	1	0.8	0.5	160	3.16	0.05
Homestead Gardens	4	1	0.7	0.6	160	5.40	0.05
Fruit Orchards	3	1	0.9	0.4	160	2.81	0.05
Vegetable Gardens	4	1	0.8	0.5	160	4.75	0.05

Source: Field Survey, 2023

4. 4. Business opprtunities as a result of cashless policy

The cashless policy imposed on Nigerians and the subsequent cash scarcity had strenthened the SMEs in the horticultural sector through business diversification advantage. This entails doing other composite businesses to meet the table’s demand which invariably paid off to their credits. These diversifications gave way to a protective insurrance at the instance of any failure in the main business, other supplementry ones responds to bring food to the table.

In a related development therefore, it should be recalled that Kumbotso and Bunkure LGAs were sampled from the southern end of the study area. It was Ungogo and Dambatta to the north, Nassarawa and Ajingi to the east, as Gwale and Gwarzo LGAs were to the west. Moreover, percentage scores of 25, 30, 45 and 40 of respondents were recorded to be involved in the commercial POS stands across the south, north, east and western ends of the study area respectively. This diversification also takes care of payments into their commerce, and making good advantage for virtual development.

Other forms of business diversification within the horticultural business units of these SMEs during the cash crisis include the sales of recharge cards which attracted 15, 20, 30 and 35 percentages across the 4 cardinal locations respectively. About 35, 25, 20 and 40 percentages were also engaged concurrently in touting, whereby wares were negotiated and get supplied from the original owners, and making profit from the deal (Fig. 4). Additionally, the touts hereby also engage themselves in commission profiteering after a successful business negotiation. The remaining overall average of 10% of the respondents, which culminated from a span between 5 and 15% across the 4 cardinal locations of the study area were in the neutral position, who waits patiently with whatever comes from their main legitimate business, and involve not in any diversification vantage. The diversification however was not unconnected with the intent and fact that whatever the circumstance, feeding is a must, and therefore, the source and means must be pursued without prejudice.

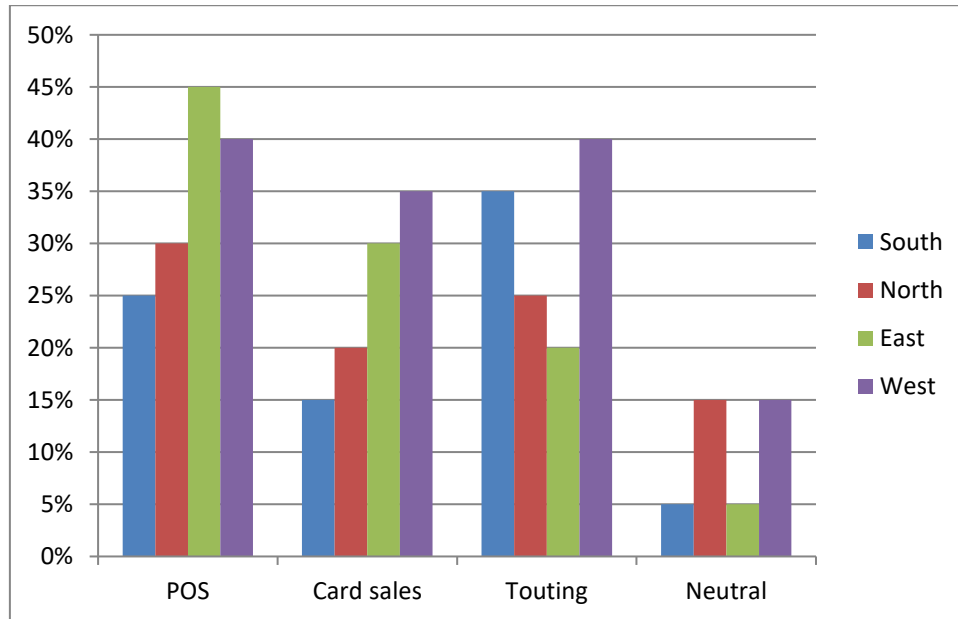


Fig. 4. Business Opportunities and Diversification Profile. Source: Field Survey, 2023
Source: Field Survey, 2023

4. 5. Mode of Payment during the Cash Crisis

Payments for goods and services in the horticultural SMEs were precariously delayed during the cash crunch. As a result, there were several mode of payment that surfaced for utilization within the sector during the cash crunch under review. Amongst these were cash payment ecounter which was 15%, advance payment before service, and credit purchase as 5% each, while trade by barter which involves switching items between buyer and seller recorded 10%. Others were the post-dated cheque and credit card for potential payment as 5%, public relation deals was 5%, electronic payment through the POS as 35%, and bank transfer as 20%, (Fig. 5).

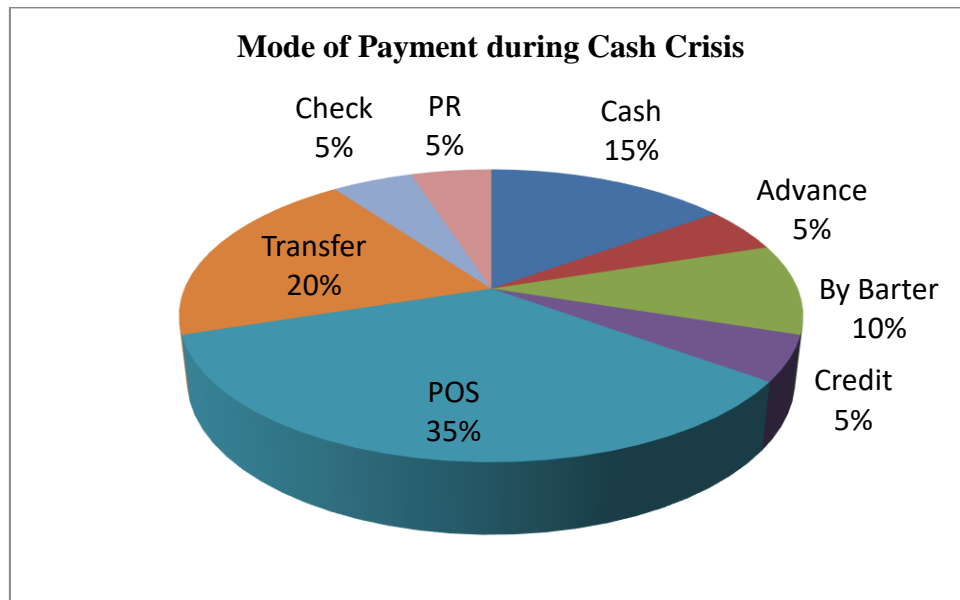


Fig. 5. Mode of Payment during the Cash Crisis
Source: Field Survey, 2023

The variations that exist in the mode of payment hereby is not unconnected with the reality of cash crunch, and to satisfy smooth demand and supply, a mode of payment for goods and services must be devised to serve the people effectively.

4. 6. Specific Challenges Facing the Business during the Period under Review

The cashless policy embarked upon by the CBN disrupted traditional horticultural supply chains due to their perishable nature. Respondent reports however indicated that the policy brought unforgettable crisis onto horticultural businesses across all outlets in Nigeria, as the cash crunch affected sales and services which went into moribund due to the inflicted cash strap.

4. 6. 1. Reluctance to change from cash-based economy under low managerial skill

Many people engaged in horticultural business were accustomed to the use of cash in most of their transactions, and the new cashless policy was very difficult to adhere with, being

a new development. Moreover, the lack of appropriate technological know-how and right approach to modern technology that are mostly electronically based would take time for proper adaptation. The reluctance for change adaptation portends gross display of low managerial skills upon which 50% of the respondents across all sampling areas compromised with. Therefore, complaining of low patronage and business failure during the period of cashless policy implementation regime due to reluctances and unavailability of cash was the assertion of Akintoye *et al.* (2018).

4. 6. 2. Poor operational banking system

Some banks in Nigeria were very conservative, and their staff too very hostile to customers, as 40% of respondents' indicated that failed transaction in e-banking may not be recovered amidst poor products innovation and unseasoned marketing techniques. This limits the zeal to banking activities, especially within the rural communities. The length of time taken at the ATM stands to obtain meager sums as low as two thousand naira set limit at the time was also very devastating and frustrating according to field report. The use of very few innovative products and marketing techniques with inadequate utilization of information technology, alongside staff hostility to customers, and the lack of suitable legal and regulatory framework for e-payment which can reduce transaction costs for banks and translates to lower service charges for customers were reported in Elechi, Chizoba (2016), Obasanmi, Imasuen (2020).

4. 6. 3. Extravagant and incriminating exchange rates for new bank-notes

Some 55% of the respondents reiterated that there were extravagant and incriminating exchange rates for new bank-notes during the cash crisis. This manifested excessively on the new bank-notes incriminating into about 50% interest rates on a single transaction with some Point of Sales (POS) operators in most parts of the rural communities. Moreover, the role played by the CBN-induced POS in partnership with Super Agents and Deposit Money Banks (**DMBs**) was very licentious as the POS terminal operators charged exorbitant fees for cash withdrawals while they became a vital alternative to banks (Bella, Oguntuase, 2023; Okafor, 2023).

4. 6. 4. Low level of internet and telecommunication facilities

Agreement to low level of internet penetration with poorly developed telecommunication facilities was about 70% of the total respondents' on this exercise. It was said to be a major factor that heightened the plights of the horticulturists in Kano State during the recent cash crunch impacted from the cashless and Naira redesign hiccup. Nonetheless, the low level of internet facilities that impedes smooth development and improvement of e-education, e-payments and e-commerce in Nigeria was very devastating according to Akintoye *et al.* (2018), Salami *et al.* (2020).

4. 6. 5. Level of education

Reports also indicated that educational level was one of the limitations the horticulturists were exposed to during the cashless policy crash-out. This also covered 65% of the respondents. Accordingly, the inability of a general knowledge of digital machines (phones and others), and non-safety of third party inclusion in electronic transactions requiring confidentiality was a big hindrance in the cashless economy as indicated in the conviction of Elechi, Chizoba (2016).

4. 6. 6. Emotional imbalance and business failure

Amalgamated crisis due to diminished sales and devastating business patronages, low income, loss of jobs, low access to basic needs, crumbled homes and marital crisis, and a host of other social vices led tremendously to emotional imbalance and business failure within the horticultural commerce environment during the cash crunch. This had 35% of the respondents'. Thus, it is akin to the scenario of divorce and marriage crisis due to emotional imbalance and low access to basic needs during the Covid-19 pandemic era as reported in Salami *et al.* (2020).

4. 7. Mitigating Measures Against the Challenges

4. 7. 1. Adaptation to the digital transaction models

A cross section of the respondents covering over 70%, especially within the metropolis, reiterated that when the only available option was to go digital in the transaction processes despite the cash oriented society being earlier used to: they have no option left than to make adjustment to the current realities through forced adaptation. This they did by opening transaction accounts with the new generation finance platforms like the Opay, Monie Point, Palm Pay, Ease Monie, and a host of others. These were more reliable than the conventional banking systems according to Onyemachi (2023) analysis. Information from respondents across the two sampling frames also further revealed that the horticulturists have to attach to nearby POS operators in order to ease business transactions. The use of POS terminals for payment for transactions in a cashless economy was reported in Elechi, Chizoba (2016), Ndukwe (2023).

4. 7. 2. Change in consumption patterns

As a result of the cashless and Naira redesign policy that caused a lot of pain and agony for many Nigerian businesses, one of the most effective remedies to cash crunch, according to respondents was the change in consumption patterns towards eating and other social habits alongside family members. About 75% of the respondents were in agreement with this change. During crisis or economic shocks, people attempts to adapt with coping mechanisms which include reducing food consumption, eating habits, and restrains on other basic necessities as reported in Salami *et al.* (2020).

4. 7. 3. Reduction in the inflow of goods from market supplies

About 35% of the respondents, especially within the ornamental gardens sub-sector of the horticultural business that usually place orders for wares succumbed to the reduction in the inflow of goods production and supplies from wholesalers. This was aimed at curtailing running into management problems when sales were not in same quantum with supplies during the cash crisis. However, reductions in the market supplies at the event of any upheavals, epidemics, crisis or economic shocks become pertinent (Abdulhamid, 2016, Salami *et al.* (2020).

4. 7. 4. Relocation of personnels to close proximity

Keeping the essential workers around to take care of horticultural crops on daily activities is very crucial especially in the metropolis where transportation is part of the production process. It was earlier reported that most of the attendants of the ornamental gardens were at close proximity (Abdulhamid, 2016) as well as with homestead and vegetable gardens' that

operates as backyard gardens within and out-buildings (Konnert *et al.* 2015, Akintoye *et al.* 2018).

5. CONCLUSION AND RECOMMENDATIONS

The cashless policy and recent Naira redesign policy in Nigeria had significant impacts on horticultural activities in Kano State, affecting supply chains and market access. Horticultural crops have wide markets within and outside Kano State, as well as to the neighbouring and other foreign countries. Moreover, there has been gross deficit to the under performance of the SMEs in the country, and this has undermined its contribution to economic growth and development. The key issues therefore that affects the horticultural sub-sector of the SMEs in the most populous black nation and its inability to maneuver to any discrepancy or abrupt change in the business environment against such policies or startling disasters are low managerial skills, lack of access to modern technology, low level of internet and telecommunication facilities, poor business environment and funding deficiencies. These had vindicated their recent activities and performances during the cash crunch that further dampened their morale and aspirations, and exposed them to a great shock with diminished concert output.

Massive campaign is yet recommended for intensification on the necessity of the cashless policy within the current global context, and the need to strengthen the performance of these SMEs with enhanced business environment in order to augment their performances. The augmentation may however be realized by enhancing digital infrastructure and support programs for SMEs in agriculture. There should also be a good access to financial aids and modern technology to sustain its growth and development, and to serve as sustainable insulators in future policy-induced calamities or natural disasters. Horticultural businesses should also invest in digital payment systems and explore alternative marketing strategies to reduce dependency on cash transactions. Future research should however explore long-term effects on different agricultural sectors and strategies for enhancing resilience to policy-induced changes.

Acknowledgement

We would like to thank the respondents for their time and valuable insights. Special thanks to the Central Bank of Nigeria for providing relevant data and to the research assistants who helped in data collection and analysis.

References

- [1] Abdulhamid, Bala, Survey of plant seedling production by private nurseries in Kano metropolis-Nigeria. *Journal of Research in Forestry, Wildlife & Environment*. 8 (2016) 73-82
- [2] Agwu, M. O., Ezeani, N. S., Cashless Economy in Nigeria: Challenges and Prospects. *Journal of African Finance and Economic Development*. 3 (1) (2021) 42-55

- [3] Akintoye, H. A., Layade, A. A., Aina, O. O., Adebayo, A. G., Shokalu, A. O., Olatunji, M. T., Akinkunmi, O. Y., Oyedeji, E. O., Igberaese, P. O., Fade-Aluko, A. A., James, I. E., Okoyo, M. E., Profitability of Ornamental Plants Production in Southwest Nigeria. Proceedings of the 36th Annual Conference of Horticultural Society of Nigeria (Hortson), Lafia. Holden 18th-22nd November, (2018) 558-563.
- [4] Bella, S., Oguntuase, O., Naira Redesign and Cashless Policy: Wither the Role of Bank Neutral Cash Hubs? Financial Services Nigeria. 06 March, (2023).
- [5] Elechi, A., Chizoba, R. A, Cashless Policy in Nigeria and Its Socio-Economic Impacts. *Public Policy and Administration Research* 6 (1) (2016) 16-22
- [6] Gaya, A. Y., Mustapha, A., Muhammed, A. B., Lawal, A. T., Ahmad, S. Y., Shuaibu, A., U., Yaya, M., Determinants of Fuel Wood Consumption in Rural and Urban Farming Households of Kano State, Nigeria. *Renewable* 3 (1) (2023) 1-11
- [7] Gyamfi-Yeboah, K., Effects of the digital payment system on SMES performance in developing countries; a case of Ghana. *EPRA International Journal of Economic and Business Review*. 7 (12) (2019) 79-87
- [8] Herman, U. B., Anna, G. M., The impact of cashless economy on small business operators in Borno State, Nigeria. *GSJ*. 11(6) (2023) 320-9186
- [9] Ihenyen Confidence Joel, Yeitaribo Numuworimi, Effect of Cashless Policy on the Performance of Small Business Enterprises in Bayelsa State. *International Journal of Economics and Financial Management* 9 (2) (2024) 92-112
- [10] Iwedi, M., Wachukwu, P., Court, E, Naira Redesign and Economic Growth in Nigeria: Prospects and Challenges. *Journal of Accounting and Financial Management* 9 (1) (2023) 23-28
- [11] Joanna England, Top six digital payments countries about to go cashless. *Nigerian Journal of Economy* 4 (6) (2022) 97-102
- [12] Kingsley, Ighobor, Africa's Quest for a Cashless Economy Gains Momentum. *Africa Renewal, United Nations Digital Magazine* (May-July) (2017).
- [13] Konnert, M., Fady, B., Gomory, D., A'Hara, S., Wolter, F., Ducci, F., Koskela, J., Bozzano, M., Maaten, T., Kowalczyk, J., Use and transfer of forest reproductive material in Europe in the context of climate change (PDF). *European Forest Genetic Resources Programme, Biodiversity International, Rome, Italy.*: xvi (2015) 75
- [14] Ndukwe, J., Naira Redesign and Cashless Policy in Nigeria; University of Nigeria, Nsuka. Researchgate Publication. No 369013173 (2023).
- [15] NPC, Nigeria population census figures. National Population Commission (2006).
- [16] Obasanmi, J. O., Imasuen, O. F., Cashless Policy in Nigeria: Effects, Challenges and Prospects. *Journal of Finance and Accounting. Special Issue: Financial Inclusion, Accounting Perspectives and Development*. 8 (1) (2020) 18-23
- [17] Okafor, I. C., Effect of naira redesign policy on welfare of civil servants: a study of Abakaliki metropolis. *Journal of Policy and Development Studies* 14 (1) (2023) 250-261

- [18] Okoye, P.V.C., Ezejiolor, R., An Appraisal of Cashless Economy Policy in the Development of Nigerian Economy. *Research Journal of Finance & Accounting* 4 (7) (2013) 237-251
- [19] Omotunde, M., Sunday, T., John-Dewole, A., Impacts of cashless economy in Nigeria. *Greener Journal of Internet Information and Communication Systems* 1 (2) (2013) 40-43
- [20] Onyemachi, F., What Opay-Guinness partnership means for FMCG market in Nigeria. *BD News*. (2023).
- [21] Salami, A. O., Nwadike, C., An Evaluation of the Potentials of *Moringa oleifera* Lam), A Vegetable and Hedgerow Plant for Diet Supplements and Multipurpose Utilizations. *Journal of Plant Studies* 9 (1) (2020) 59-67
- [22] Salami, A. O., Gbadebo, J. O., Dalibi, J. H., Nwadike, C., Effects of Policy Lockdown in COVID19 Pandemic Era on Some Biotic Elements. In: Evans *et al.*, (Eds) Book of Readings on the novel corona virus disease (COVID-19). Biotechnology Society of Nigeria, North Central Zone (2020): 89-103