



Research Article

Effect of Naira Notes redesign policy in Nigeria: Evidence from household and money market operator's cost of living in Taraba State

Tama Hope Jacob¹, Sule Habila¹, Rebecca Hosea¹, Habu Umaru¹ and Jordan Kungaba²

¹Taraba State Polytechnic, Jalingo, Nigeria

²Department of Business Administration, Federal University of Wukari

Correspondence Email: hopetama22@gmail.com

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Abstract

This research work investigates the effects of Naira notes redesign policy in Nigeria: Evidence from household and money market operators in Taraba state. The study adopted a survey research design to obtain data about practices, situations, and views through questionnaires. The population of this study covered all 66708 households and 3532 Money Market Operators in Taraba State. The study used a simple multistage and cluster sampling method to select the sample respondents. The work employed a descriptive statistic method; simple percentages and the Chi-square (x²) statistic were used for the computation and analysis of the data collected. The study found a significant increase in household and money market operator costs of living in Taraba State between 2022 and 2023. The study recommends that a reasonable timeline be given to the implementation period with strict monitoring and control of commercial banks to erode favoritism and corruption in the process of policy implementation. There should be stability in the maximum cash withdrawal policy from all means: Point of sale (POS), automated teller machines (ATM) over the bank counter, etc., and adequate provisions for electronic banking for rural and urban centers should be made by financial sector administrators.

Keywords: Naira Notes, Redesign, Household, Money Market operators

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Introduction

Every government aims to improve the standard of living of the citizens and the household in particular. This is achieved through government-conscious efforts to tame general costs via various economic policies. Economic policies (fiscal and monetary) are the sure vehicles that drive a nation to its development destination, as they are mainly put in place to stabilize macroeconomic variables such as the standard of living, which aims at reducing the general costs, among others. Monetary policy is one of such viable economic policies usually put in place to stabilize the general costs. The prime objective of the 21st-century economic system is to reduce or keep the general cost at a minimal level (Ben et al 2018; Mannan, K. A., & Farhana, K.M. (2023)). According to Abdul (2007), as cited in Anfofum, Afang, and Moses (2015), low general costs significantly impact the economy through increased consumer surplus, consumption, investment, creativity, and production, but high general costs have calamitous micro and macroeconomic consequences that erode consumers' purchasing power and diminish indicators of economic growth and development. The devastating effect of an increase in the general costs in developing economies, particularly in Nigeria and Taraba State, has occupied public discussion and is of prime concern to all stakeholders (Udo, Abner, Ike, Tingir, & Ibekwe, 2018).

However, Nwanma (2023) affirmed that naira note redesign is a policy instrument used to address the issues of general costs and enhance price stability and African nations have turned to currency note redesign to tackle the increase in general costs. Central Banks in Nigeria, Somalia, and across the world have embarked on currency note redesign to minimize the general costs (Nwanma 2023). According to Emefiele (2022), the Central Bank of Nigeria has also conceived naira notes redesign as one of the viable monetary policy instruments to address economic issues relating to the general costs, and that naira notes redesign will help tame the general costs and other related economic issues in Nigeria (Emefiele 2022). In support of this, Olujobi (2022) posited that the Naira note redesign is a successful monetary policy in a country like Nigeria, where the majority of the population relies on local currency notes.

Yet, several reports have shown that there is a continuous and persistent increase in the general costs across states in Nigeria, even after the implementation of the 2022 naira note redesign policy. This is worrisome as it is perceived to pose a threat to the growth and development of the nation by keeping the standard of living in Nigeria lower. According to various reports, general costs will increase by about 300% between 2022 and 2023. In light of this, Numbeo (2023), posited that the general costs in Nigeria is, on average, 70.8%, as inexpensive meals in Restaurants are now ₦800.00, compared to ₦350 in January 2022 According to Okoye, Olokoyo, Ezeji, Okoh, and Evbuomwan (2019), general costs is a continuous phenomenon with a persistent increase in the price of products and services, and a high general cost diminishes indicators of consumption and investment globally

Statement of the Problem

According to Olatunji (2022), the general costs for Nigerians have spiked as food prices across the country have increased, resulting in increased general costs across Nigeria and Taraba State in particular. It is reported that the general costs for Nigerians have spiked as food prices across the country rose by 25.6% in one year (between 2022 and 2023). This has raised much concern in terms of the factor that is specifically responsible for the situation. An increase in the general costs affects all sectors of the economy, including households and money market operators. The general costs erode consumers' purchasing power and investment capacity and diminish other indicators of economic growth.

Research Questions

The following questions will be answered at the end of this study:

1. What is the cost implication of the 2022 naira notes redesign on money market operators' cost Taraba in the state?
2. What is the cost implication of 2022 naira notes redesign on household general costs in Taraba state?



Objectives of the Study

The following objectives will be pursued in this study:

1. To examine the cost implication of 2022 naira notes redesign on money market operators' cost in Taraba state
2. To examine the cost implication of the 2022 naira notes redesign policy on household general costs in Taraba state.

Research Hypotheses

The following null and alternative hypotheses were verified in this study:

HO1: 2022 naira notes redesign policy did not significantly affect the cost of operation of money market operators in Taraba state!

HA1: 2022 naira notes redesign policy significantly affects cost of operation for money market operators in Taraba state!

HO2: The 2022 naira notes redesign policy did not significantly affect household general costs in Taraba state!

HA2: The 2022 naira notes redesign policy will significantly affect household general costs in Taraba state!

Significance of the Study

This study is relevant to the government and all stakeholder concerns; the study will add to the body of knowledge and reveal to stakeholders if naira notes redesign significantly affects general costs in Taraba state.

The report document of this investigation will be relevant to money market operators and households in Taraba State. It will uncover how naira note redesign affects general costs, thereby guiding them in making rational decisions against such situations in the future.

Scope of the Study

The focus of this study is on the cost implication of naira notes redesign on household and money market operators in Taraba State. The study will cover the entire country of Nigeria in terms of the generalization of its report and will cover five months in the period between April 2023 and August 2023.

Conceptual Literature Review

a. General ost

Cost is defined as “the resources used in consumption or production” (Mankiw, 2019). They are a measure of the resources required to bring a given good to market and can include the costs of labor, capital, land, transportation, and materials. General costs can be divided into four main categories: fixed costs, variable costs, semi-variable costs, and sunk costs. Fixed costs are those that do not vary with production levels and are typically associated with capital investments such as buildings, machinery, and equipment. Variable costs are costs that vary with production levels and are typically associated with materials and labor. Semi-variable costs are costs that are a combination of fixed and variable costs and are typically associated with transportation and utilities. Sunk costs are costs that have already been incurred and cannot be recovered (Agrawal 2021)

b. Money Market and Household Operators Costs of Operation

According to Agrawal (2021) Money market operators' costs are the resources required to carry money market operations while household operators' cost is the cost of living; which is the amount of money needed to cover basic expenses such as housing, food, taxes clothing, healthcare etc. In certain places and time periods, operator cost is a term used to describe the total amount of money required to operate a business and sustain households. This includes all expenses on investment and consumptions such as salaries, rent, food clothing utilities, supplies, advertising, etc.(Mankiw, 2019). In general, higher operator costs lead to higher profits, because the cost of goods or services that the business produces must be greater than the cost of producing them for the business to be profitable (Excelsior College, 2020). It means the costs incurred by the Operator in carrying out Operations. Operator costs are typically defined as the sum of the “fixed and variable costs of running a business” (Cheng and Zheng, 2008). Fixed costs are those that are incurred regardless of the level of output, whereas variable costs are those that vary depending on the level of output. Examples of fixed costs include rent, insurance, and salaries, whereas variable costs include raw materials and labour costs. Operator costs are important for firms because they determine the amount of money that can be earned from production.



If the operator costs are too high, then the firm will not be able to make a profit.

Mueller (2019) posited that operator cost can have a significant impact on the efficiency of an economy, as it can influence the decision-making process of economic agents. Furthermore, the study found that operators cost can also affect the distribution of income and wealth in an economy, as well as the level of economic growth. A study by Hsieh and according to Wang (2020) when money market operator costs are higher, the service prices are higher, which can reduce demand and thus reduce economic activity and emphasized the importance of considering the cost of services when evaluating their economic value. According to Agrawal (2021) when money market operations costs are higher, the efficiency of production decreases, and thus the overall economic activity is reduced. They conclude that to increase efficiency, it is important to analyze the cost of production, as well as the cost of operating the business. Rising costs can lead to decreased profits, as companies are unable to pass the increased costs along to customers (Hansen et al., 2017). Additionally, rising costs can lead to decreased productivity, as operators may be more likely to take longer breaks or perform less efficiently to increase their wages (Davies, 2020). Operator costs can vary widely depending on the type of business and the size of the operation. For example, a small retail store may have a relatively low operator cost, while a large manufacturing company may have a much higher operator cost. Operator costs can also vary depending on the location of the business, the type of products or services being offered, and the level of competition in the industry. Overall, operator cost is an important factor to consider when evaluating the profitability of a business. It is important to understand the different costs associated with running a business and to determine the most cost-effective way to operate the business. Operator costs are an important part of economic analysis as they provide a measure of the resources required to bring a given good to market. This is significant because it allows economists to analyze the efficiency of the production process, the costs associated with production, and the profitability of a given product or service. Additionally, understanding operator costs is important in order to make informed decisions regarding pricing, production levels, and resource

allocation. Operator costs are an important concept in economics because they can be used to measure the efficiency of a firm. This means that a firm can compare its operator costs to those of its competitors. This can help the firm decide whether it is competitive in the market and whether it is achieving its goals.

Study Population

The population of this study covered all 766708 households and 2532 Money Market Operators in Taraba State. The source of this population is the Taraba State Ministry of Budget and Planning. The opinion of this group of people is carefully surveyed to gather information on how the change in the Naira notes Policy of 2022 affects their Cost of Living in Taraba State.

Sample and Sampling Techniques

A sample size is a selected section of the population under investigation. The selected sample size is 400 households and 345 Money Market Operators. This sample is studied about the population, and from its findings, generalizations are made for the entire population. This sample size is considered based on the following model:

$$S = \frac{X^2 NP (1 - P)}{d^2 (N - 1) + X^2 P(1 - P)}$$

S = Required Sample Size.

X^2 = The table value of the chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = The Population Size.

P = The population proportion (assumed to be 0.50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (0.05).

The above formula will be considered in determining the sample size of this study.



Sampling

Table 1.0: Population and sampling procedure

Household Sector			
Sample Size $(S) = X^2 NP (1 - P) \div d^2 (N - 1) + X^2 P(1 - P) = 4(766708) (0.5)(1-0.5) \div (0.05)^2(766708-1) + 4(0.5)(1-0.5) = 400$			
Sector	Population	%	Sample
Applicants	326143	42	168
Business Owners	198335	26	104
Private Employees	58411	8	32
Public Employees	75031	10	40
Farmers	108788	14	56
Total	766708	100%	400
Money Market Operators Operation Cost			
Sample Size $(S) = X^2 NP (1 - P) \div d^2 (N - 1) + X^2 P(1 - P) = 4(2532)(0.5)(1-0.5) \div (0.05)^2(2532-1) + 4(0.5)(1-0.5) = 345$			
Sector	Population	%	Sample
Microfinance Bank	231	9	31
Commercial Banks	47	2	7
POS Operators	2046	81	279
Others	208	8	28
Total	2532	100%	345

The study used a simple cluster and multistage sampling method. As such, the population was clustered into households and money market operators operation cost, after which the population of applicants, business owners, private employees, and public employees was taken for households, while the population of POS operators, microfinance bank operators, and commercial bank operators was considered for money market operators, respectively. The population from each sector was added up to get the total population for the study. The sample is spread

proportionally across each sector. After this, simple random sampling techniques were conducted in each sector to select the respondents for the study. This process was carefully followed to ensure adequate representation of the population. The population and the sampling procedure are shown in Table 1.0

Procedure for Data Collection

Questionnaires were employed to obtain data from households and Money market operators about how the change in naira note policy affects their cost of living. Four hundred (400) questionnaires were administered, with some randomly selected households and MMOs as the research sample. Three latter scales of Agreed Disagreed and Undecided instruments were administered, guided with instructions, and retrieved within 48 hours. This was to ensure that the responses were entered without pressure.

Method of Data Analysis

The work employed a descriptive statistic method; simple percentages and the Chi-square (χ^2) statistic were used for the computation and analysis of the data collected.

1. Simple percentage = $X/Y * 100\%$. Where X = a given number of respondents (say, those who agreed, disagreed or were undecided). Y = total number of respondents (say, agreed, disagreed, or undecided). 100%= constant
2. A statistical package for social sciences was employed to run the chi-square statistics to get the p-Value of the chi-square statistic.



Responses to Research Questions

Table 1.1: Money Market Operators Cost

S/N	Variable	Responses						Total
		Agreed		Disagreed		Undecided		
		O	E	O	E	O	E	
1.1	I made much expenditure between December, 2022 and February 2023?	231	310	94	25	13	10.4	338
1.2	I was physically attacked during the period of December, 2022 and February 2023?	323	310	3	25	12	10.4	338
1.3	I was emotionally drained during the period of December, 2022 and February 2023.	322	310	0	28	16	10.4	338
1.4	Were you forced to change your line of business during the period of December 2022 and February 2023?	318	310	9	28	11	10.4	338
1.5	I lost some funds during the period of December 2022 and February 2023.	334	310	4	28	0	10.4	338
Total		1528(90%)		110(7%)		52(3%)		1690

Source: Field Survey 2023

Table 1.1 shows that 90% of money market operators in Taraba state agreed that they made much expenditure between December, 2022 and February 2023 and were physically attacked during the period of December, 2022 and February 2023. They were also emotionally drained and forced to change their line of business during the months of December, 2022 and February 2023. They also agreed that they had lost some funds during the mentioned period.

Table 1.2: Data on the Effects of Change in Naira on the Cost of Living of Households

S/N	Variables	Responses						Total
		Agreed		Disagreed		Undecided		
		O	E	O	E	O	E	
1.1	The redesign of Naira notes increased the cost of food items?	310	303	19	102	9	6.8	338
1.2	The redesign of Naira notes introduced an increase in the cost of industrial products, which increased your cost of living?	318	303	10	102	10	6.8	338
1.3	The redesign of Naira notes introduced an increased cost of transportation, which increased your cost of living?	232	303	100	102	6	6.8	338
1.4	The redesign of Naira notes introduced increased costs of distribution and logistics services, which increased your cost of living?	320	303	7	102	11	6.8	338
1.5	The redesign of Naira notes introduced increased costs and charges for financial transactions, which increased your cost of living?	337	303	0	102	1	6.8	338
Total		1517(89%)		136(8%)		37(3%)		1690

Source: Field Survey 2023

Table 1.2 shows that 89% of the households in Taraba state agreed that the redesign of naira notes has increased the cost of food items, industrial products, transportation, distribution, and logistics services, as well as financial transactions, which has affected their cost of living.

Evaluation of Research Hypothesis

Test of HO1

P Value = 0.000115

DF = 8.

Critical Value (@) = 1.647

Level of significance = 99%



The null hypothesis (HO1), which states that the 2023 changes in naira note policy did not significantly affect the cost of money market operators' operation cost in Taraba state is rejected at the 0.95% level of significance as the P-value (0.000115) is less than the Critical value (1.647) at the 99% significance level of 8 degrees of freedom. Hence, the alternative hypothesis which states the 2023 changes in naira note policy significantly affect the Cost of money market operators operations in Taraba state is accepted

Test of HO2

P -Value = 0.000173842

DF = 8

Critical Value (@) = 1.647

Level of significance = 99%

The null hypothesis (HO2), which states that the 2022 naira note redesign policy has not significantly affected household general costs in Taraba state is rejected at the 0.99% level of significance because the P-value (0.000173842) of the chi square is less than the critical (X critical = 0.711) value at the 99% significance level of 8 degrees of freedom. Hence, the alternative hypothesis (H1), which state that the 2022 naira note redesign policy has significantly affected household general costs in Taraba state is accepted.

Discussion of Findings

90% of money market operators in Taraba State agreed that they made a lot of expenditure between December 2022 and February 2023 and were physically attacked during the period of December 2022 and February 2023. They were also emotionally drained and forced to change their line of business during the months of December 2022 and February 2023. They also agreed that they had lost some funds during the mentioned period. This finding is consistent with the report of Allure (2023), who posited that the various ways in which the Naira note redesign policy affected the survival or cost of the Money Market Operations include: A limited amount of physical cash halted investment and income from MMOs in most locations. Many Money market operators operation cost and facilities suffered several attacks and destructions that were financially costly. Most locations of the money market operation were forced out of business. Many POS operators are out of business, while some commercial banks that were attacked are yet to be fully

fixed in some locations. Increase the cost of physical cash notes; for instance, ₦1000 physical cash was sold for ₦1200 nonphysical cash, and his scenario was not market-friendly to MMOs. Commercial banks and other money market operators suffered a drastic reduction in profit in most locations due to the limited number of financial transactions brought about by insufficient cash (Allure, 2023).

89% of households in Taraba state agreed that the redesign of naira notes has increased the cost of food items, industrial products, transportation, distribution, and logistics services, as well as financial transactions, which has affected their cost of living. This finding is consistent with the report of Abubakar and Yandaki (2023), who affirmed that the 2022 naira note redesign policy brought about a higher cost of living that affected households in Nigeria as large amount of new notes were given to a few favored individuals at the expense of the public by bankers due to corruption, hindered local economic activities, which spurred a drastic reduction in outflows, and the after-effects were an inflationary situation and increased the cost of living in Nigeria during the period.

Conclusion

There is a significant increase in household and money market operators' operation costs of living in Taraba state between 2022 and 2023. The 2022 naira notes redesign policy has significantly affected households cost of living and money market operators operations cost in Taraba state. There have been increases in the costs of transportation, rent, clothes, food items, etc. between 2022 and 2023 in Taraba state and this is attributed to the 2022 naira note redesign policy in Nigeria.

Recommendations

This research suggests the following policy measures as recommendations for the research report:

A reasonable timeline should be given to the implementation period, with strict monitoring and control of commercial banks to erode favoritism and corruption in the process of the policy's implementation.



There should be stability in the maximum cash withdrawal policy from all means: POS, ATM, Bank counter, etc. The time line for the expiration of the older note should be reasonably longer to ensure the availability of newly designed notes; this will avert a cash crunch.

The government should promote ceaseless cash traceability and accountability to keep the new notes as close to the banking system as possible.

The government should release a reasonably large amount of the new notes to the public. Government and private financial institutions should make adequate provisions for ATMs, POS, and other electronic banking means and systems in both Rural and Urban Communities to enhance access to the new notes.

References

- Abubakar, Y., & Yandaki U.A. (2023). The 2022 Naira Redesign Programme in Nigeria: Implications on the Local Economy and Financial History. *African Journal of Accounting and Financial Research*, 6(2), 22–32. <https://doi.org/10.52589/ajaf-r-gsbsqg7s>
- Agrawal, V., Sharma, A., Tiwari, M., & Singh, N. (2021). Effects of operator cost on production efficiency: A study. *International Journal of Production Economics*, 225, 156–168.
- Allure T. (2023). CBN Naira Redesign Policy 2022. The Cable: Retrieved from <https://www.thecable.ng>.
- Cheng, X. & Zheng, Y. (2008). Operator costs and firm performance: A conceptual literature review. *International Journal of Business and Economics*, 7(1), 1–7.
- Davies, D. (2020). Understanding the Costs of Operating a Vehicle or System. *Logistics Management*.
- Emefiele G. (2022) Frequently Ask Questions on Naira Redesign Policy of 2033. Retrieved on April 7th, 2023. From www.cbn.gov.ng.
- Hansen, G., Barros, P., & Sorensen, J. (2017). *Operator Cost Analysis: A Comprehensive Guide*. European Logistics Association. Chicago/Turabian Style
- Mannan, K. A., & Farhana, K.M. (2023). Digital Financial Inclusion and Remittances: An Empirical Study on Bangladeshi Migrant Households. *FinTech*, 2(4), 680–697.
- Mankiw, G. (2019). *Principles of Economics*. Cengage Learning.
- Mueller, D. (2019). The Impact of Operator Cost on Economic Efficiency. *Journal of Economic Analysis*, 5(2), pp. 124–135.
- Numbeo M, (2023) Cost of Living in Nigeria: Retrieved April 6th , 2023 from <http://www.numbeo.com>
- Nwanma V (2023) Currency Redesign: Lessons For Nigeria From Global Practices. *Daily Trust*: Retrieved from www.dailytrust.com
- Olatunji E. (2023): Cost of Living in Nigeria. *Business Day Analysis*: Retrieved on April 6th, 2023, from www.businessday.com.
- Olatunji, E. (2022). Cost of living spikes as food prices rise 26% in 1yr. *Businessday NG*. <https://businessday.ng/business-economy/article/cost-of-living-spikes-as-food-prices-rise-26-in-1yr/>
- Olujobi, O. (2022), Macroeconomic Implications of the New Currency Refurbishment and Capital Formation in Nigeria: April 6th, 2023 From <https://mpr.aub.uni-muenchen.de/115634/>.
- Okoye, L., Olokoyo, F., Ezeji, N., Okoh, J., and Egbomwan, O. (2019); Determinants of the behavior of the Inflation Rate in Nigeria. *Investment Management and Financial Innovations*, 16 (2), pp. 25–36
- Udo E, Samuel J., and Abner P. (2020), Determinants of Cost of Living in Nigeria: *Journal of Internet Banking and Commerce*, 25(1): 10–28.
- Udo, E. Abner, P., Ike R., Tingir T., and Ibekwe U. (2018) Effect of Administrative Capital Expenditure on Economic Development; an Emerging Nation Outlook *Journal of Internet Banking and Commerce*, 23(1): 1–17.