



## EMPIRICAL ANALYSIS OF THE EFFECT OF DEVALUATION OF NAIRA ON THE LIVELIHOOD OF HOUSEHOLDS IN KADUNA NORTH LOCAL GOVERNMENT AREA, NIGERIA

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### Abstract

This study examined the effect of naira devaluation on the livelihood of households in Nigeria adopting a descriptive survey research design. The study was carried out in Kaduna North LGA of Kaduna State using a sample of 400 households selected through multistage sampling technique. The primary quantitative data were collected using a questionnaire, while data analysis was carried out using descriptive statistics and multiple regression analysis. Findings from the results of the data analysis revealed that naira devaluation had significant negative effect on household expenditures in Kaduna North LGA of Kaduna State ( $\beta_1 = -0.145$ ,  $P < 0.01$ ); and inflation rate had significant negative impact on household expenditures ( $\beta_2 = -0.584$ ,  $P < 0.01$ ). The study also revealed that the main coping strategy employed by households in Kaduna North LGA to mitigate the economic challenges emanating from naira devaluation was adjusting the overall budget and spending habits of the household. Based on the findings, the study concludes that naira devaluation have significant negative effect on the livelihood of households in Kaduna North Local Government Area. The study recommends among others that government and policymakers should implement targeted interventions such as target cash transfers, subsidies for essential goods and services to cushion the impacts of naira devaluation on households' welfare.

**Key Words:** Devaluation, households expenditure, inflation,

**JEL Classification Codes:** D14, F31, F18, I31

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### 1. Introduction

Nigeria, as one of the largest oil-producing countries in Africa, heavily relies on its oil sector for revenue generation (Okere, 2021). However, due to economic pressures and the need to reform fiscal policies, there has been discussions and actions towards devaluation of the country's currency – the Naira. Nigeria, like many developing nations, has undergone significant economic reforms including devaluation of the Naira. These economic reforms have profound implications on the livelihood of households, affects income levels, purchasing power, and the overall welfare of the citizens. Devaluation of a country's currency is a situation whereby the value of the country's currency is lessened as

compared to the currencies of other countries (Loto, 2018). Devaluation is a strategy that could help in reinforcing or adjusting the imbalance of a country's trade position with other countries (Loto, 2018). The strategy intends to make the exports of the country that is devaluing her currency to be attractive to other economies compared to the imports of other countries (Loto, 2018).

Nigeria, which is an import dependent economy, in recent time devalued its currency (Naira). This ought not to be so, because the country produces few goods that attract buyers from other countries; and industries in the country do not produce most of the essential commodities desired by its citizens. Consequently, the devaluation of the Naira has increased the cost of imports (Okere, 2021).

Some studies such as Okere (2021); Ewa, Adebisi, and Ijing (2018); Loto (2018); Adekoya and Razaq (2016); have made attempts to link currency devaluation to poverty or on the livelihood and welfare of its citizens. While some studies have supported the idea of devaluation due to the gains it brings, others have shown contrary evidences because it has not helped developing countries. Also, the proponents of devaluation argued that devaluation encourages more foreign capital inflow and buyers of locally made products which in turn leads to more revenue (Okere, 2021). In contrast,

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devaluation is trailed with increase in prices which later affect the wage price (Frankel, 2019). More so, Deepa and Gireeshkumar (2014) posited that devaluation makes outflows of capital a continuous one and increased deficit in current account but, the study provided no empirical testing. Devaluation encourages widespread poverty through income distribution, unemployment and poor poverty programmes in developing countries (Fidelis, 2014). There is dearth of studies on the area of Naira devaluation and livelihood of households in Nigeria, which is a gap this study intends to fill. Hence, it seeks to examine the effect of Naira devaluation on the livelihood of households in Kaduna-North LGA of Kaduna state, Nigeria.

## **2.0 Literature Review**

### **Concept of Devaluation**

Devaluation of a nation's currency is a reduction in the value of money with respect to those goods, services or other monetary units with which the currency of such nation can be exchanged (Yioyio, 2015). Hence, the currency of a nation can be devalued when discouraging importation and encouraging exportation of goods and services across the borders of the nation. The persistent decrease in the exchange of foreign currency to Naira can be traced back to the introduction of Structural Adjustment Program in 1986, which has generated concerns over the increased inflation and the reduction in the

hope of improving the output level of Nigeria (Asiya, 2014).

### **Theoretical Framework**

This study is anchored on the 'Rational choice' theory as its theoretical framework. The Rational choice theory is used in the social sciences to analyse individual decision-making behaviours. Fundamentally, the Rational choice theory posits that individuals make decisions that maximize their utility or satisfaction, given their preferences, constraints, and other available information. The theory also posits that households seek to maximize their utility or satisfaction from the choices they make. In the context of Naira devaluation, households may adjust their consumption pattern and expenditure decisions to maximize their overall well-being given the new economic circumstance. The Rational choice theory is applied in this study to gain insight on how households in Kaduna-North LGA of Kaduna State make decisions in response to Nigerian government's policy (Naira devaluation); thereby, helping to explain the socio-economic consequences of the policy (Naira devaluation) on welfare and well-being of households in the LGA. The theory also helps in examining how households in Kaduna-North LGA now make decisions regarding their expenditures in response to policy change (Naira devaluation) in Nigeria.

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### **Empirical Review**

Adewunmi (2023) investigated the relationship between Naira depreciation, inflation and the Nigerian economy from 1960 to 2022 adopting quantitative research design. The study used secondary data on GDP, inflation rate, exchange rate, and FDI; analysed using descriptive statistics, correlation analysis, and multiple regression analysis. Findings from the study revealed the existence of a significant strong positive relationship between Naira depreciation and Nigerian economy, while a slight negative relationship exists between inflation and the Nigerian economy (GDP) for the period investigated.

Okere (2021) examined the impact of Naira devaluation on the financial performance of SMEs in Nigeria adopting a descriptive research design. The study used a sample of 240 selected using convenient sampling technique. Data used in the study were collected through a questionnaire, while data analysis was done using frequency/percentage analysis and Chi-Square test. Findings from the study revealed that Naira depreciation had both negative and positive effect on the financial performance of SMEs in Nigeria and the country as whole. While Adekoya and Razak (2016) examined the link between currency devaluation and poverty in Nigeria from 1981 to 2014 using Autoregressive Distributed Lag (ARDL) model. Findings from the study revealed that

devaluation of the Naira increased poverty in the country. On the other hand, Abada et al. (2021) examined the impact of unemployment, inflation and household's consumption on economic growth in Nigeria from 1960 to 2018 using OLS regression estimation technique. Finding from the study revealed that inflation had significant negative impact on economic growth in Nigeria.

Ogbebor, Oguntodu, and Oyinloye (2020) investigated the effect of inflation on standard of living of Nigerian from 1998 to 2017. Data in the study were analysed using descriptive statistics, ARDL model, and ECM. Finding from the study revealed that inflation rate had a significant negative effect on standard of living in Nigeria. The study by Tevin-Anyali, Obi, and Oladipo (2023) examined the impact of inflation rate on the standard of living of people in Nigeria using data from 1999 to 2022. Data in the study were analysed using Augmented Dickey-Fuller unit root test, cointegration test, and ARDL model. Findings from the study revealed that inflation rate had significant positive (long run and short run) impacts on the standard of living of people in Nigeria.

### **3.0 Materials and Methods**

#### **Research Design**

This study adopts a descriptive survey research design (Creswell, 2014).

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#### **The Study Area**

This study was carried out in Kaduna-North Local Government Area (LGA) of Kaduna State, Nigeria.

#### **Population of the Study**

The population of the study comprised of all the households in Kaduna-North LGA. The study assumed that the total number of households in Kaduna North LGA is greater than or equal to 100,000 ( $N \geq 100,000$ ).

#### **Sample Size of the Study**

This study used an ideal sample size of 400 households, which was determined using Yamane sample size determination method (Yamane, 1967) with 5% error margin.

#### **Sampling Technique**

A multistage sampling technique (Sedgwick, 2015) was used in the selection of households that participated in the study. Only household heads or household members from the age of 18 years were selected in the study. A Through the multistage sampling method a total of 400 household members were randomly selected as respondents in the study.

#### **Instrument of Data Collection**

A structured questionnaire was used in collecting quantitative data in the study.

#### **Validity and Reliability of Instrument**

Face validity method was used in validating the instrument (questionnaire) in this study, while the reliability was determined using Cronbach's alpha reliability test (Tavakol & Dennick, 2011). The result of the validity test revealed that the questionnaire was valid,

while the result of the Cronbach's alpha reliability test which returned a Cronbach's alpha coefficient of 0.748 also indicated that the questionnaire was of good reliability and consistency in line with the submission of Taber (2018).

### Variables in the Study

The study used household expenditure as the dependent variable, while Naira devaluation and inflation rate are the independent variables.

### Model Specification

The model that is used to explain the effect of Naira devaluation on the expenditure pattern of households in Kaduna North Local Government Area (LGA) of Kaduna State, Nigeria is given by the equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \quad (3.1)$$

Where; Y = Household expenditure;  $X_1$  = Naira devaluation;  $X_2$  = Inflation rate;  $\beta_0$  = Intercept (Constant) of the model;  $\beta_1$  = Slope of  $X_1$  (coefficient of naira devaluation);  $\beta_2$  =

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Slope of  $X_2$  (Coefficient of Inflation Rate);  $\varepsilon$  = Error or residual term

### Method of Data Analysis

The quantitative data gathered in the study through a questionnaire were analysed using descriptive statistics (frequency, percentage, mean, and standard deviation) and OLS - multiple regression analysis with the aid of Statistical Package for the Social Sciences (SPSS) version 25.

### 4.0 Data Analysis and Discussion of Results

#### Response Rate

The research questionnaire was administered to the 400 randomly selected household heads in Kaduna-North LGA of Kaduna State. However, only 342 copies of the administered questionnaire were returned and found valid for use in the study. This implies that the study achieved a response rate of 85.5 percent; which is deemed okay to proceed with the study. Consequently, data analysis in the study was carried out on the basis of 342 and not 400.

### Socio-Demographic Characteristics of Heads of Households in Kaduna-North LGA

Table 4.1: Socio-Demographic Characteristics of Respondents

| Variable            | Frequency  | Percent      |
|---------------------|------------|--------------|
| <b>Sex</b>          |            |              |
| Male                | 217        | 63.5         |
| Female              | 125        | 36.5         |
| <b>Total</b>        | <b>342</b> | <b>100.0</b> |
| <b>Age Category</b> |            |              |
| 18-24 years         | 44         | 12.9         |
| 25-31 years         | 56         | 16.4         |
| 32-38 years         | 62         | 18.1         |
| 39-45 years         | 83         | 24.3         |

|                                 |            |              |
|---------------------------------|------------|--------------|
| Above 45 years                  | 97         | 28.4         |
| <b>Total</b>                    | <b>342</b> | <b>100.0</b> |
| <b>Marital Status</b>           |            |              |
| Single                          | 49         | 14.3         |
| Married                         | 183        | 53.5         |
| Separated                       | 52         | 15.2         |
| Divorced                        | 27         | 7.9          |
| Widowed                         | 31         | 9.1          |
| <b>Total</b>                    | <b>342</b> | <b>100.0</b> |
| <b>Educational Background</b>   |            |              |
| No Formal Education             | 31         | 9.1          |
| Primary Education               | 58         | 17.0         |
| Secondary Education             | 112        | 32.7         |
| Tertiary Education              | 141        | 41.2         |
| <b>Total</b>                    | <b>342</b> | <b>100.0</b> |
| <b>Occupation</b>               |            |              |
| Civil Servant                   | 71         | 20.8         |
| Private Sector employee         | 64         | 18.7         |
| Farming                         | 79         | 23.1         |
| Trading/Business                | 92         | 26.9         |
| Others                          | 36         | 10.5         |
| <b>Total</b>                    | <b>342</b> | <b>100.0</b> |
| <b>Household Monthly Income</b> |            |              |
| Less than ₦50,000               | 69         | 20.2         |
| ₦50,000-₦99,999                 | 73         | 21.3         |
| ₦100,000-₦149,999               | 87         | 25.4         |
| ₦150,000-₦199,999               | 61         | 17.8         |
| ₦200,000 and above              | 52         | 15.2         |
| <b>Total</b>                    | <b>342</b> | <b>100.0</b> |

Source: Researcher's Field Survey, 2024

The first panel of Table 4.1 shows the sex distribution of the household heads in Kaduna-North LGA, which revealed that 217 (63.5%) were males, while 125 (36.5%) were females. This distribution is an indication that most household heads in Kaduna-North LGA are males. The second panel shows the age distribution of the respondents, which revealed that majority of them 97 (28.4%) were in the age category of 'above 45 years'. This distribution is an indication that most of the household heads in Kaduna-North LGA

are in the age category of 'above 45 years'. The third panel shows the marital status distribution of the respondents, which revealed that majority of them 183 (53.5%) were married. This distribution is an indication that most household heads in Kaduna-North LGA are married. The fourth panel shows the distribution of educational background of the respondents, which revealed that majority of them 141(41.2%) acquired tertiary education. This distribution is an indication that most household heads in

Kaduna-North LGA have attained tertiary education. The fifth panel shows the distribution of occupations of the respondents, which revealed that majority of them 92 (26.9%) were engaged in trading/business. This distribution is an indication that most of the household heads in Kaduna-North LGA are engaged in trading/business. The sixth panel of the Table shows the distribution of monthly income of the respondents, which revealed that majority of them 87(25.4%) had household monthly income of ₦100,000 - ₦149,999. This distribution is an indication that most household heads in Kaduna-North LGA have monthly income of ₦100,000 - ₦149,999.

#### **Response Rate on Effect of Naira Devaluation on Household Expenditures in Kaduna North LGA**

**Table 4.2:** Naira devaluation has brought about reduction in healthcare expenditure in households

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 80        | 23.4    |
| Disagreed          | 137       | 40.1    |
| Neutral            | 53        | 15.5    |
| Agreed             | 52        | 15.2    |
| Strongly Agreed    | 20        | 5.8     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.2 reveals that majority of the respondents 137(40.1%) disagreed that Naira devaluation had brought about reduction in healthcare expenditures in their households. This distribution is an indication that Naira devaluation brought about increase in the

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healthcare expenditures of households in Kaduna North LGA.

**Table 4.3:** Naira devaluation has brought about reduction in expenditure on transportation in households

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 87        | 25.4    |
| Disagreed          | 156       | 45.6    |
| Neutral            | 24        | 7.0     |
| Agreed             | 60        | 17.5    |
| Strongly Agreed    | 15        | 4.4     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.3 reveals that majority of the respondents 156 (45.6%) disagreed that Naira devaluation had brought about reduction in transportation expenditure in their households. This distribution is an indication that Naira devaluation brought about increase in the transportation expenditures of households in Kaduna North LGA.

**Table 4.4:** Naira devaluation has brought about reduction in household consumption expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 88        | 25.7    |
| Disagreed          | 158       | 46.2    |
| Neutral            | 31        | 9.1     |
| Agreed             | 45        | 13.2    |
| Strongly Agreed    | 20        | 5.8     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.4 reveals that majority of the respondents 158 (46.2%) disagreed that Naira devaluation had brought about reduction in household consumption expenditures. This distribution is an indication that Naira devaluation brought about increase in

household consumption expenditures in Kaduna North LGA.

**Table 4.5:** Naira devaluation has brought about reduction in household educational expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 89        | 26.0    |
| Disagreed          | 172       | 50.3    |
| Neutral            | 22        | 6.4     |
| Agreed             | 33        | 9.6     |
| Strongly Agreed    | 26        | 7.6     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.5 reveals that majority of the respondents 172(50.3%) disagreed that Naira devaluation had brought about reduction in household educational expenditures. This distribution is an indication that Naira devaluation brought about increase in household educational expenditures in Kaduna North LGA.

### Response Rate on Impact of Inflation Rate on Household Expenditures in Kaduna North LGA

**Table 4.6:** The level of inflation in Nigeria has brought about reduction in household healthcare expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 82        | 24.0    |
| Disagreed          | 143       | 41.8    |
| Neutral            | 53        | 15.5    |
| Agreed             | 46        | 13.5    |
| Strongly Agreed    | 18        | 5.3     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.6 shows that majority of the respondents 143(41.8%) disagreed that the

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level of inflation in Nigeria had brought about reduction in their households' health expenditures. This distribution is an indication that the level of inflation in Nigeria has increased household expenditures on healthcare in Kaduna North LGA.

**Table 4.7:** The level of inflation in Nigeria has brought about reduction in household transportation expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 103       | 30.1    |
| Disagreed          | 120       | 35.1    |
| Neutral            | 43        | 12.6    |
| Agreed             | 47        | 13.7    |
| Strongly Agreed    | 29        | 8.5     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.7 reveals that majority of the respondents 120(35.1%) disagreed that the level of inflation in Nigeria had brought about reduction in their households' transportation expenditures. This distribution is an indication that the level of inflation in Nigeria has increased household transportation expenditures in Kaduna North LGA.

**Table 4.8:** The level of inflation in Nigeria has brought about reduction in household consumption expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 87        | 25.4    |
| Disagreed          | 142       | 41.5    |
| Neutral            | 18        | 5.3     |
| Agreed             | 60        | 17.5    |
| Strongly Agreed    | 35        | 10.2    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024



Table 4.8 reveals that majority of the respondents 142(41.5%) disagreed that the level of inflation in Nigeria had brought about reduction in their households' consumption expenditures. This distribution is an indication that the level of inflation in Nigeria has increased household consumption expenditures in Kaduna North LGA.

**Table 4.9:** The level of inflation in Nigeria has brought about reduction in household educational expenditures

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 68        | 19.9    |
| Disagreed          | 168       | 49.1    |
| Neutral            | 33        | 9.6     |
| Agreed             | 49        | 14.3    |
| Strongly Agreed    | 24        | 7.0     |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.9 reveals that majority of the respondents 168(49.1%) disagreed that the level of inflation in Nigeria had brought about reduction in their households' educational expenditures. This distribution is an indication that the level of inflation in Nigeria has increased household educational expenditures in Kaduna North LGA.

### Response Rate on General Expenditure Pattern in Households due to Naira Devaluation

**Table 4.10:** Healthcare expenditures increased in households as a result of Naira devaluation

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 35        | 10.2    |
| Disagreed          | 52        | 15.2    |
| Neutral            | 26        | 7.6     |
| Agreed             | 154       | 45.0    |
| Strongly Agreed    | 75        | 21.9    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.10 reveals that majority of the respondents 154(45.0%) agreed that healthcare expenditures increased in their households as a result of Naira devaluation. This distribution is an indication that healthcare expenditures increased in households in Kaduna North LGA as a result of Naira devaluation.

**Table 4.11:** Educational expenditure increased in households as a result of Naira devaluation

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 48        | 14.0    |
| Disagreed          | 69        | 20.2    |
| Neutral            | 33        | 9.6     |
| Agreed             | 127       | 37.1    |
| Strongly Agreed    | 65        | 19.0    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.11 reveals that majority of the respondents 127(37.1%) agreed that educational expenditures increased in their households as a result of Naira devaluation. This distribution is an indication that educational expenditures increased in households in Kaduna North LGA as a result of Naira devaluation.

**Table 4.12:** Transportation expenditure increased in households as a result of Naira devaluation

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 29        | 8.5     |
| Disagreed          | 46        | 13.5    |
| Neutral            | 37        | 10.8    |
| Agreed             | 169       | 49.4    |
| Strongly Agreed    | 61        | 17.8    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.12 reveals that majority of the respondents 169(49.4%) agreed that transportation expenditures increased in their households as a result of Naira devaluation. This distribution is an indication that transportation expenditures increased in households in Kaduna North LGA as a result of Naira devaluation.

**Table 4.13:** Consumption expenditure increased in households as a result of Naira devaluation

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 21        | 6.1     |
| Disagreed          | 52        | 15.2    |
| Neutral            | 43        | 12.6    |
| Agreed             | 82        | 24.0    |
| Strongly Agreed    | 144       | 42.1    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.13 reveals that majority of the respondents 144(42.1%) strongly agreed that consumption expenditures increased in their households as a result of Naira devaluation. This is an indication that consumption expenditures increased in households in

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Kaduna North LGA as a result of Naira devaluation.

### Response Rate on Coping Strategies to mitigate Economic Challenges Resulting from Naira Devaluation

**Table 4.14:** Adjusting the overall budget and spending habits of the household

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 42        | 12.3    |
| Disagreed          | 72        | 21.1    |
| Neutral            | 20        | 5.8     |
| Agreed             | 150       | 43.9    |
| Strongly Agreed    | 58        | 17.0    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.14 reveals that majority of the respondents 150(43.9%) agreed with that 'adjusting the overall budget and spending habits of the household' was a strategy for coping with economic challenges resulting from Naira devaluation. This distribution is an indication that 'adjusting the overall budget and spending habits of the household' is a strategy adopted by households in Kaduna North LGA to mitigate economic challenges resulting from Naira devaluation.

**Table 4.15:** Avoiding purchase and consumption of foreign goods that are Nigerian-made substitutes

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 48        | 14.0    |
| Disagreed          | 82        | 24.0    |
| Neutral            | 33        | 9.6     |
| Agreed             | 126       | 36.8    |
| Strongly Agreed    | 53        | 15.5    |
| Total              | 342       | 100.0   |

Source: Researcher's Field Survey, 2024

Table 4.15 reveals that majority of the respondents 126(36.8%) agreed with that ‘avoiding purchase and consumption of foreign goods that are Nigerian-made substitutes’ was a strategy for coping with economic challenges resulting from Naira devaluation. This distribution is an indication that ‘avoiding purchase and consumption of foreign goods that are Nigerian-made substitutes’ is a strategy adopted by households in Kaduna North LGA to mitigate economic challenges resulting from Naira devaluation.

**Table 4.16:** Complete avoidance or reduction of expenses on nonessential goods and services by households

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|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Strongly Disagreed | 31        | 9.1     |
| Disagreed          | 77        | 22.5    |
| Neutral            | 23        | 6.9     |
| Agreed             | 155       | 45.3    |
| Strongly Agreed    | 56        | 16.4    |
| Total              | 342       | 100.0   |

Source: Researcher’s Field Survey, 2024

Table 4.16 reveals that majority of the respondents 155(45.3%) agreed that ‘complete avoidance or reduction of expenses on nonessential goods and services by household’ was a strategy for coping with economic challenges resulting from Naira devaluation. This distribution is an indication that ‘complete avoidance or reduction of expenses on nonessential goods and services by households’ is a strategy adopted by households in Kaduna North LGA to mitigate economic challenges resulting from Naira devaluation.

## 4.2 Descriptive Statistics

**Table 4.17: Descriptive Statistics**

| Variable              | N   | Mean   | Std. Deviation |
|-----------------------|-----|--------|----------------|
| Naira devaluation     | 342 | 2.2990 | 0.7225         |
| Inflation rate        | 342 | 2.3867 | 0.7944         |
| Household expenditure | 342 | 3.7259 | 0.6387         |

Source: Researcher’s Descriptive Statistics Output, 2024

Table 4.17 reveals that the independent variable – ‘Naira devaluation’ has a mean response of 2.2990 and standard deviation of 0.7225, while ‘Inflation rate’ has a mean response of 2.3867 and standard deviation of 0.7944. The dependent variable – ‘Household

expenditure’ has a mean response of 3.7259 and standard deviation of 0.6387.

### Multiple Regression Analysis

Multiple regression analysis was used in this study to explain the effects of Naira devaluation on household expenditure pattern in Kaduna North LGA of Kaduna State. The

Ordinary Least Squares (OLS) technique was used in estimating the regression model, and

the results are given in Tables 4.18, 4.19, and 4.20:

**Table 4.18: Model Summary**

| R            | $r^2$ | Adjusted $r^2$ | Std. Error |
|--------------|-------|----------------|------------|
| <b>0.853</b> | 0.728 | 0.727          | 0.3339     |

Source: Researcher's SPSS OLS - Multiple Regression Analysis Output, 2024

Table 4.18 is the model summary Table of the multiple regression analysis carried out in this study. The Table shows that the coefficient of multiple correlation ( $r$ ) = 0.853; which is an indication that there is 85.3% relationship between Naira devaluation, Inflation rate, and household expenditure pattern in Kaduna North LGA of Kaduna State. The Table also shows that the coefficient of multiple determination ( $r^2$ ) and adjusted  $r^2$  are 0.728 and 0.727 respectively. These measures indicate that about 72.7% to 72.8% of the observed variations (behaviour) in household expenditure pattern in Kaduna North LGA were explained by Naira devaluation and Inflation rate in the model; while only 27.2%

to 27.3% of the variations were unexplained (perhaps, due to other factors not included in the model) and captured in the error term. The Table also indicates that the standard error of the model is 0.3339, which is relatively less than the mean value of the dependent variable (household expenditure pattern) of 3.7259. Since the standard error of the multiple regression model (S.E. = 0.3339) is relatively small compared to the mean of the dependent variable (3.7259), it is an indication that the model used in explaining the effects of Naira devaluation and Inflation rate on household expenditure patterns in Kaduna North LGA of Kaduna State in this study is adequate and reliable.

**Table 4.19: Regression ANOVA**

| Model      | Sum of Squares | DF  | Mean Square | F       | Sig.  |
|------------|----------------|-----|-------------|---------|-------|
| Regression | 101.324        | 2   | 50.662      | 454.483 | 0.000 |
| Residual   | 37.789         | 339 | 0.111       |         |       |
| Total      | 139.113        | 341 |             |         |       |

Source: Researcher's SPSS OLS - Multiple Regression Analysis Output, 2024

Table 4.19 is the regression ANOVA Table used in testing the overall statistical significance of the multiple regression model. The Table revealed that the multiple regression model that explains the effects of

Naira devaluation and Inflation rate on household expenditure pattern in Kaduna North LGA of Kaduna State has an overall statistical significance at 1% ( $F = 454.483$ ,  $DF = (2, 339)$ ,  $P < 0.01$ ).

**Table 4.20: Multiple Regression Coefficients**

Dependent variable: Household expenditure pattern

|                   | <b>B</b> | <b>Std. Error</b> | <b>T</b> | <b>P</b> |
|-------------------|----------|-------------------|----------|----------|
| (Constant)        | 5.453    | 0.063             | 86.616   | 0.000    |
| Naira devaluation | -0.145   | 0.037             | -3.966   | 0.000    |
| Inflation rate    | -0.584   | 0.033             | -17.581  | 0.000    |

Source: Researcher's SPSS OLS - Multiple Regression Analysis Output, 2024

Table 4.20 is the regression coefficients Table that shows the estimated regression coefficients and their associated P values. The Table shows that the intercept (constant) of the model is positive (5.453) and has an associated P value of 0.000. Since the P value is less than 0.01, it implies that the intercept of the model is statistically significant at 1% level of significance ( $\beta_0 = 5.453$ ,  $P < 0.01$ ). The implication of this result is that in the absence of Naira devaluation and Inflation rate, household expenditure pattern in Kaduna North LGA was on the average positive (5.453) and statistically significant at 1%. The Table also shows that the variable – ‘Naira devaluation’ has a coefficient of -0.145 and an associated P value of 0.000. Since the P value is less than 0.01, it implies that the variable – ‘Naira devaluation’ has significant negative effect on household expenditure pattern in Kaduna North LGA at 1% ( $\beta_1 = -0.145$ ,  $P < 0.01$ ). The implication of this result is that a unit increase in ‘Naira devaluation’ stimulated a decrease of 0.145 units in household expenditure pattern in Kaduna North LGA. The Table also shows that the variable – ‘Inflation rate’ has a coefficient of -0.584 and an associated P value of 0.000.

Since the P value is less than 0.01, it implies that the variable – ‘Inflation rate’ has significant negative impact on household expenditure pattern in Kaduna North LGA at 1% ( $\beta_2 = -0.584$ ,  $P < 0.01$ ). The implication of this result is that a unit increase in ‘Inflation rate’ stimulated a decrease of 0.584 units in household expenditure pattern in Kaduna North LGA.

Based on the multiple regression analysis results and interpretations above, it implies that the estimated multiple regression model that explains the effects of Naira devaluation and Inflation rate on household expenditure pattern in Kaduna North LGA can be written mathematically as:

$$Y = 5.453 - 0.145X_1 - 0.584X_2 + \epsilon \quad (4.1)$$

Where; Y = Household expenditure pattern;  $X_1$  = Naira devaluation;  $X_2$  = Inflation rate;  $\epsilon$  = Error or residual term

### Tests of Hypotheses

The multiple regression coefficient Table (Table 4.20) is used to test the research hypotheses formulated in this study:

### Research Hypothesis #1

H<sub>01</sub>: Naira devaluation has no significant effect on household expenditure pattern in Nigeria.

From Table 4.20, the variable – ‘Naira devaluation’ has a coefficient of -0.145 and an associated P value of 0.000. Since the associated P value is less than 0.01 ( $0.000 < 0.01$ ), the first null hypothesis (H<sub>01</sub>) in the study is rejected at 1% level of significance. Hence, it is concluded that ‘Naira devaluation’ has significant negative effect on household expenditure pattern in Kaduna North LGA of Kaduna State ( $\beta_1 = -0.145$ ,  $P < 0.01$ ).

### Research Hypothesis #2

H<sub>02</sub>: Inflation has no significant influence on household expenditure pattern in Nigeria.

From Table 4.20, the variable – ‘Inflation rate’ has a coefficient of -0.584 and an associated P value of 0.000. Since the associated P value is less than 0.01 ( $0.000 < 0.01$ ), the second null hypothesis (H<sub>02</sub>) in the study is rejected at 1% level of significance. Hence, it is concluded that ‘Inflation rate’ has significant negative impact on household expenditure pattern in Kaduna North LGA of Kaduna State ( $\beta_2 = -0.584$ ,  $P < 0.01$ ).

### Discussion of Findings

This study examined the effects of Naira devaluation and inflation rate on the livelihoods of households in Kaduna North LGA, Nigeria adopting a descriptive survey

research design. The study used a sample of 400 inhabitants of Kaduna North LGA of Kaduna State selected through a multistage sampling technique, while data were collected using a questionnaire. The data were analysed using descriptive statistics (frequency, percentage, mean, and standard deviation) and OLS - multiple regression analysis; and the results were presented in Tables and duly interpreted. Some findings were deduced from the results and are discussed here:

From the descriptive statistics (percentage analysis) revealed that majority of respondents in the study were males (63.5%), were in the age category of ‘39-45 years’ (28.4%), were ‘married’ (53.5%), had attained tertiary education (41.2%), were into trading/business (26.9%), and had household monthly income of ‘₦100,000 - ₦149,999’ (25.4%).

Findings from the multiple regression analysis revealed that ‘Naira devaluation’ has significant negative effect on household expenditure pattern in Kaduna North LGA of Kaduna State. This finding is consistent with that of Adekoya and Razak (2016) whose study revealed that devaluation of the Naira increased poverty in Nigeria from 1981 to 2014. The finding is however, inconsistent with that of Okere (2021) whose study found that Naira depreciation had both negative and positive effects on the financial performance of SMEs in Nigeria and the country as whole. The finding also disagrees with that of

Adewunmi (2023) whose study revealed the existence of a significant strong positive relationship between Naira depreciation and Nigerian economy from 1960 to 2022.

Findings also revealed that inflation rate has significant negative impact on household expenditure pattern in Kaduna North LGA of Kaduna State. This finding supports the finding of Ogbebor et al. (2020) whose study found that Inflation rate had a significant negative effect on standard of living in Nigeria from 1998 to 2017. The finding also corroborates that of Abada et al. (2021) whose study revealed that inflation had significant negative impact on economic growth in Nigeria from 1960 to 2018. However, the finding is inconsistent with that of Tevin-Anyali et al. (2023) whose study revealed that inflation rate had significant positive (long run and short run) impacts on the standard of living of people in Nigeria.

Findings also revealed that the coping strategies used by households in Kaduna North LGA of Kaduna State to mitigate the economic challenges resulting from Naira devaluation were; adjusting the overall budget and spending habits of the household; avoiding purchase and consumption of foreign goods that are Nigerian-made substitutes, and complete avoidance or reduction of expenses on nonessential goods and services in the household.

## 5.0 Conclusion and Recommendations

This study provides valuable insights into the effect of Naira devaluation in the face of prevailing inflation rate on the livelihood of households in Kaduna North LGA of Kaduna State, as it revealed that both Naira devaluation and Inflation rate have significant negative effect on household expenditure pattern in Kaduna North LGA of Kaduna State, Nigeria. The study therefore, concludes that Naira devaluation has significant negative effect on the livelihood of households in Kaduna North LGA of Kaduna State, Nigeria. Based on the findings and conclusion of the study, the following recommendations are proffered:

1. **Policy Interventions:** Government and policymakers should consider implementing targeted interventions to support vulnerable households affected by Naira devaluation such as target cash transfers, subsidies for essential goods and services, and social safety nets in order to cushion the impacts of the policy on households' welfare.
2. **Economic Diversification:** There is a need for concerted efforts to diversify the Nigerian economy away from heavy reliance on oil revenues. Promoting sectors such as agriculture, manufacturing, and technology can create alternative sources of income and reduce the economy's vulnerability to external shocks.



3. **Financial Education:** Empowering households with financial literacy and management skills can enhance their ability to cope with economic challenges. Government agencies and non-profit organizations should invest in financial education programs aimed at improving household budgeting, savings, and investment practices.
4. **Monitoring and Evaluation:** Continuous monitoring and evaluation of economic policies and their impacts on household welfare are essential. Policymakers should establish mechanisms for collecting timely data on household expenditures, income levels, and coping strategies to support evidence-based policy decisions.
5. **Stakeholder Collaboration:** Collaboration between government agencies, civil society organizations, and international partners is crucial for addressing the complex challenges facing Nigerian households. Stakeholders should work together to design and implement holistic strategies that promote inclusive economic growth and improve the livelihoods of households in the country.

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