

Do Macroeconomic Factors Influence Household Consumption Expenditure in the Gambia? ARDL-Error Correction Regression Approach

Mamadou Salieu Jallow¹, Issa Hamadou²

^{1,2} Faculty of Economics and Business, Indonesian International Islamic University (IIU)

Article Info

Article history:

Received Jun, 2024

Revised Jun, 2024

Accepted Jun, 2024

Keywords:

Consumption
Expenditure
Household
Macroeconomics
The Gambia

ABSTRACT

Consumption constitutes a larger part of GDP and contributes immensely in enhancing economic growth and development of a country. This study examines the influence of macroeconomic factors on household consumption expenditure in the Gambia. To achieve our objective, we employ ARDL estimation method with Bounds tests to analyze our study using secondary times series data collected from World Bank's World Development Indicators database from 2000 to 2020. The findings reveal that GDP, inflation, direct credit to private sector, remittances and population all have significant effect on household consumption expenditure in the short run because their p values are less than 0.05 at 5% level of significance. For the long run effect, the CointEq (-1)* is negative and statistically significant. It means that the short run is adjusted with high speed in the run approximately 108%. Therefore, GDP, inflation, direct credit to private sector, inflation, remittances and population are all significantly affecting household consumption in the long run. Thus, the study recommends that Government of the Gambia to use a mix macroeconomic policy method to stimulate and increase household consumption expenditure in order to help in achieving economic growth and development. The study further recommends future researchers to include other macroeconomic variables like unemployment and interest rate.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

Name: Issa Hamadou

Institution: Faculty of Economics and Business, Indonesian International Islamic University (IIU)

Email: issa.hamadou@uiii.ac.id

1. INTRODUCTION

Household consumption expenditure is the most vital and largest component of aggregate demand [1]. For many countries around the world, household consumption expenditure represents around 60% of their total GDP [1]. According to OECD 12 household final expenditure refers to spending made by households to satisfy their

daily needs/ wants and this involves durable and non-durable goods and services for example clothing, feeding, rental housing, health, cars, education, etc. The Gross domestic product per capita (GDP per capita) in Gambia was 666.47\$ in 2021 and it is predicted to reach 706.46\$ by the end of 2023 (trading economic global macro models) which is almost five percent of the total world average. Agriculture is crucial to the

Gambia's economy, accounting for 17-18% of GDP of the country and more than 40% of foreign exchange profits from exports [2].

In the Gambia, consumer price inflation has ranged between -5.5% and 56.7% over the last 60 years. The inflation rate for 2022 was calculated to be 11%. During the monitoring period from 1962 to 2022, the average annual inflation rate was 8.2 [2].

The main reasons for inflation in this country are high energy prices as well as freight expenses, inflation climbed to 7.5% in 2021 from 5.9% in 2020. The budget deficit expanded from 2.2% of GDP in 2020 to 4.0% of GDP in 2021, indicating higher health-care expenditures and subsidies to consumers and state entities to offset the COVID-19 shock [3].

Since the inception of the African Development Bank in The Gambia in 1974, the Bank has contributed about \$457 million to public infrastructure projects mainly in industry, agriculture, water (and sanitation), energy, transportation, governance, and the social sector (primarily education and health). Loans and grants are the most common modes of funding, primarily from the African Development Fund, the Bank Group's concessional arm [3].

As consumption constitutes a larger part of national income accounting and gross domestic product, thus the portion of the household consumption expenditure is used as a base to measure the economic growth and development of a country as well as the welfare of the people since it constitutes a larger share of the disposable income of consumers on a microeconomic scale [4]. Hence, it is important to understand the major drivers of household spending in a country for better and effective policy formulation and management as well as tackling the issue of poverty as a goal of SDG [4].

After reviewing several existing studies, we found that most of the studies used variables like level of education, income, inflation, and the number of dependents to determine household consumption expenditure without taking into consideration key macroeconomic factors thus, it is against this backdrop that, this study intends to fill the gap by including key

macroeconomic variables like lending interest rate, personal remittances received, GDP per capita and direct credit to the private sector in examining household consumption expenditure in the Gambia.

Consequently, the objective of this study is to analyze the impacts of macroeconomic variables (GDP per capita, inflation, Population, Personal remittance received, and direct credit) on household consumption expenditure in the Gambia. Thus, providing a comprehensive understanding of the relationship between the selected control variables and the dependent variable in the Gambia. By doing this, it will enable us to provide policies and programs that policymakers and other stakeholders can use to improve household consumption thereby driving GDP which would help in achieving sustainable economic growth and development.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 *Theoretical Literature Review*

The study of the factors that influence household consumption continues to be a major focus for many economics and academic researchers since Keynes developed his consumption theory in 1936 [5]. according to Keynes's theory of consumption also known as the absolute income hypothesis (AIH), he stated that, current income is the main factor that influences individual consumption expenditure thus, an increase in income will lead to an increase in consumption but the increase in consumption is not as much as the increase in income. This implies that the marginal propensity to consume (MPC) is lower than the average propensity to save (APS). However, since Keynes propounded this theory, other economists also developed and put forward theories to challenge Keynes's theory of consumption [5].

Firstly, J.S. Dusenbery, an American economist in 1948, proposed a theory called the Relative Income Hypothesis (RIH) in which he emphasizes that a person's consumption depends on his relative income rather than his present income. This theory opposed Keynes's view on consumption as it suggested that the consumption of a person is not a function of his current income but instead his position in the distribution of income in society which implies that consumption mainly depends on his relative income to the income of other persons in the society [6].

Secondly, the life cycle theory hypothesis (LCTH) developed by Modigliani and Brumberg in 1954 challenged both Keynes's consumption theory as the duo argued that, consumption does not only base current income instead the consumption expenditure of a person depends on his whole lifetime expected income and wealth. This means that a person in his prime earning at a young age will consume less than the income he earns thereby creating enough savings amount which will be invested in assets to accumulate more wealth to increase his income during retirement time and eventually allow him to spend more than what he earns during retirement period [5], [6].

Finally, Friedman also challenged Keynes's theory of consumption as he propounded his theory of consumption in 1957 called the Permanent Income Hypothesis (PIH) in which he argued that consumption depends on long-term expected income instead of current income. This implies that consumption on one day is not based on the income received on that specific day but on other remaining days as well by smoothing consumption. For instance, a person

who receives wages every Friday will not spend all his consumption on one day and zero consumption on other days of the week instead he will smooth his consumption flow per day to avoid plenty of consumption today and little or no consumption tomorrow [5], [6].

2.2 Empirical Literature Review

The relationship between household consumption expenditure and macroeconomic variables has been analyzed by several researchers [7] who examined the determinants of consumption expenditure in Nigeria and Ghana and found that there is an existing positive relationship between income and consumption which supported Keynes consumption theory. On the other hand, the study found an inverse relationship between interest rate, domestic savings, and household consumption which implies that an increase in interest rate or domestic savings will lead to a decrease in consumption.

Furthermore, [6] conducted a study on the macroeconomic determinants of household consumption in selected West African countries using a panel data estimation process. The study revealed that inflation harms household consumption thus, a one percent increase in inflation will lead to a 0.0007 fall in consumption. This shows that prices of goods and services contribute to influencing household consumption levels because higher prices reduce household consumption levels and vice versa. This finding rejects Keynes's theory of consumption as it suggests that current income is not the only determinant of household consumption. The finding further revealed that GDP per capita and domestic credit to the private sector have a positive and statistically significant relationship with

household consumption whereas private remittances and exchange rates have a positive but statistically insignificant effect with household consumption. This result implies that an increase in GDP per capita and domestic credit to the private sector will significantly increase household consumption levels while remittance and exchange rates do not affect consumption since is not statistically significant. However, their country-specific result indicated that inflation is only statistically significant in Burkina Faso while no statistically significant exists in the remaining selected countries. Again, there is a directional and significant relationship between GDP per capita and household consumption in all selected countries except Mali. Besides, Personal remittances have a positive and significant relation with household consumption in Senegal which means that an increase in remittances will positively induce household consumption.

On the contrary, the study of [1] examined the macroeconomic determinants of household determinants in Ghana using a time series from 1961 to 2013. The findings suggested that inflation which is represented by the consumer price index (CPI) has a positive long-run relationship with household consumption. The coefficient of 5.675 implies that a 1 percent increase in inflation leads to an increase in household consumption by about 5.675%. However, the result supports the findings on GDP per capita which is used as a proxy as it indicated that income has a positive relationship with household consumption which means an increase in income, will lead to an increase in household consumption as well. Thus, in my opinion, is do not support the finding [1] on inflation while I agree with the finding of [6] on inflation because

consumers are generally sensitive to price changes which means an increase in prices of goods and services will negatively affect demand as it lowers their purchasing power holding other factors constant.

In addition, [8] analyzed household consumption expenditure's resilience toward petrol price, income, and exchange rate volatilities in South Africa using OLS and VECM to test the liner relationship as well as the short-run and long-run relationship of the variables. In the analysis of the causal relationship, the result of the study in Table 5 shows that exchange rate and income all significantly impact short-term variations in household consumption levels. This means that a rise in income and an appreciation in the country's currency will immensely boost household consumption levels in South Africa implying a positive relationship and vice versa. On the other hand, petrol prices inversely affect household expenditure which means that an increase in the price of petrol will lead to a fall in household consumption. Thus, the study concludes that to boost the economy of South Africa's government needs to adopt fiscal and monetary policies to help in increasing production, creating employment, and reducing inflation which will help to induce household consumption expenditure as well help in achieving economic growth and development.

Similarly, [7] examined economic factors that affect household consumption expenditure in West Africa. Their findings suggested that income and inflation are statistically significant at alpha 1% but have a positive impact on household consumption expenditure. The coefficients of the variables are 1.1927 and 0.0135 respectively. This implies that a one percent rise in both

income and inflation will lead to an increase in household spending by about 1.1927% and 0.0135% respectively. Besides, the results further revealed that saving and interest rates indicated a negative and statistically significant effect on household consumption. Their coefficients show that an increase in both saving and interest rates at 1% will cause a decline in consumer spending of about 0.2205% and 0.0092% respectively. They conclude their study by suggesting that the positive relationship between income on consumption correlates with Keynes' consumption theory which states that current income influences consumption. As for inflation, they indicated that the positive effects on consumption show the interplay of expectation as the cause because when consumers expect prices will rise in the future, it will induce them to increase their current spending to offset the rise in future prices. The inverse relationship of interest rate with consumers validates the concept of substitution effect because a rise in the interest rate will motives consumers to keep their money in the bank to earn more wealth thereby reducing consumption while on the other hand, the rise in interest rate makes borrowing expensive thereby limiting the money supply in the economy which ultimately reduces household consumption. Again, the negative impact of saving on household spending validates the life cycle hypothesis theory on consumption which implies a higher in savings leads to less consumption.

3. RESEARCH METHODOLOGY

This paper used a quantitative research method in which secondary time series data was collected from the World Bank database for the period from 2000 to 2022 to examine and analyze the impact of

macroeconomic variables on household consumption expenditure in the Gambia. To achieve our objective, we employ an ARDL model estimation method to help in understanding the relationship between the independent variables and household consumption expenditure which is represented as the dependent variable.

3.1 *Dependent Variable*

Household consumption expenditure according to the World Bank refers to the total spending made by households on final goods and services which is measured annually in current USD. This important variable was also used [1] as a proxy to measure household consumption expenditure.

3.2 *Independent Variable*

The variable GDP per capita which serves as a proxy for household income, refers to the total monetary value of final goods and services produced in a country during a particular period by residents of the country. It is calculated by dividing GDP by the midyear total population of a country and is measured in the Current US dollar. This variable was also used by [9] in determining China's private consumption.

In addition, according to the World Bank definition inflation rate refers to the yearly changes to the average cost of consumers in attaining a basket of goods and services. In other words, it refers to the rate at which general prices of goods and services continue to increase in a country during a particular period. It is measured by the consumer price index (CPI) using the Laspeyres formula by the World Bank. This variable was also used [10] in analyzing private consumption in Lesotho.

For the population, it refers to the number of people living in a country during a particular period.

Furthermore, as for the variable personal remittance received according to the World Bank, it means the transfers made to household residents by non-residents in the form of monetary or non-monetary means. It comprises income compensation to employees and cash transfers to households. [6] also used this variable to examine household consumption expenditure.

The final variable which is domestic credit to the private sector refers to the financial support in the form of loans, trade credits, pension funds, etc provided to the private sector by banks and other financial institutions. [6] also used this variable to examine household consumption expenditure.

3.3 Model Specification

In the process of conducting the econometric estimation and the examination of the impact of the selected macroeconomic variables on household consumption expenditure in the Gambia, we employ the ARDL model estimation technique and it involves the following steps:

$$\Delta HCE_t = \alpha_{01} + \beta_{11}HCE_{t-i} + \beta_{21}GDP_{t-i} + \beta_{31}INF_{t-i} + \beta_{41}DCPS_{t-i} + \beta_{51}PRR_{t-i} + \beta_{61}POP_{t-i} + \sum_{i=1}^p a1j\Delta HCE_{t-i} + \sum_{i=1}^{q1} a2j\Delta GDP_{t-i} + \sum_{i=1}^{q2} a3j\Delta INF_{t-i} + \sum_{i=1}^{q3} a4j\Delta DCPS_{t-i} + \sum_{i=1}^{q4} a5j\Delta PRR_{t-i} + \sum_{i=1}^{q5} a6j\Delta POP_{t-i} + e_{1t}$$

Where:

- a. HCE means Household consumption expenditure
- b. GDP means Gross Domestic Product Per capita
- c. INF means the Inflation rate
- d. DCPS means Direct credit to the private sector
- e. PRR means Private remittance received a percentage of GDP
- f. POP means population

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Below table 4.2 shows the descriptive statistics of the data.

3.4 Unit Root Test

As the variables under consideration are collected using times series data from the World Bank database, thus it is necessary to run the variable through unit root to test their stationarity and ensure their stationary before proceeding with the estimation since estimating non-stationary times data will lead to spurious estimation and will not give the right result. Therefore, an Augmented Dicky-Fuller (ADF) is used to carry out the unit root test.

3.5 ARDL Model Estimation

After performing the previous step, we then proceed with this step to estimate the econometric model. In this process, we employ the ARDL in the estimation process to provide a better understanding of the linear relationship between the independent and the dependent variable to achieve the objective of the study. This method of estimation was also used by many authors in economics analysis [11], [12].

Below is the econometric equation of the ARDL model:

Where the mean value shows the average value of the given series. In this data the mean value of our dependent variable which is household expenditure is 1.24E+09, showing the mean value of household expenditures in Gambia from 2000 to 2022. The GDP per capita has a 638.689 mean value, which suggests that on average each household has a GDP per capita of approximately 638.7 units. The mean value attached to variable direct credit to the private sector is 8.44, indicating that the amount of credit given by banks and other cooperations to the private sector on average in Gambia is 8.44

units. The inflation in this period has a 6.6402 mean value, which indicates that on average the price level increased by approximately 6.5% from 2000 to 2022 in Gambia. The mean value of personal remittances received by households is 9.95, which shows that in this data set on average, households are receiving approximately 9.95 units of personal remittances during this period. The mean value attached to the population variable is 2021282. Showing the population size on average in this period is 2,021,282 households.

The median value shows the middle value of the series of all the variables, which is 1.24E+09, 640.7, 8.66, 5.94, 8.28, and 1998212, for the household expenditures, gross domestic production per capita, direct credit to the private sector, inflation, personal remittances, and population respectively.

The minimum and maximum values of all variables are also mentioned in this table. The values of standard deviation show the deviation of all the observations from their mean value.

Jarque- Bera test also checks whether the distribution is normally distributed or not. Where the null hypothesis for this test is that the distribution is normal, while the alternative hypothesis is that the distribution is not normal. If the value of probability is less than 0.05, we can reject our null hypothesis (distribution is normal). In our estimation the probability value of the Jarque- Bera test for household expenditures, gross domestic production per capita, direct credit to the private sector, and population is greater than 0.05 (5% level of significance), so we cannot reject our null hypothesis (distribution is normal), which shows that the distribution of all these variables is normal. Whereas, the probability value of the Jarque- Bera test for inflation and personal remittances received is less than 0.05 (5% level of significance) which shows that the distribution of these two variables is not normal.

The sum shows the summation of the entire series for the particular variable. The observations show that there is a total of 23 observations in this data set.

Table 1. Descriptive Statistics

	Household Expenditures (HCE)	GDP Per Capita (GDP)	Direct credit to pvt. sec (DCPS)	Inflation (INF)	Personal remittances (PRR)	Population (POP)
Mean	1.24E+09	638.6886	8.441218	6.640242	9.958629	2021282.
Median	1.24E+09	640.6767	8.656416	5.931276	8.272289	1998212.
Maximum	1.81E+09	857.8563	11.75794	17.03287	26.83707	2639916.
Minimum	4.68E+081	310.9572	5.032580	0.844970	4.149896	1437539.
Std. Dev.	3.75E+08	127.7727	1.628690	3.584555	5.479432	391847.6
Skewness	-0.443119	-0.846134	-0.159470	1.340748	1.822797	0.107469
Kurtosis	2.438940	3.704312	2.710276	4.957570	6.020992	1.697676
Jarque- Bera	1.054365	3.219832	0.177926	10.56323	21.48271	1.669653
Probability	0.5590266	0.199904	0.914896	0.005084	0.000022	0.433650
Sum	2.84E+10	14689.84	194.1480	152.7256	229.0485	46489475
Sum Sq. Dev.	3.10E+18	359169.0	58.35850	282.6787	660.5319	3.38E+12
Observations	23	23	23	23	23	23

4.2 The unit root test using the Augmented Dicky Fuller test (ADF)

The table below (4.1) shows the results of the unit root test. The null hypothesis of this test indicates that the variable has a unit root means the time series variables are non-stationary, whereas the alternative hypothesis of this unit root term shows that the time series variables are stationary. This model implies that it captures the stationarity and structural breaks in a series at the same time. The estimated results of this test are the basis for applying the linear or nonlinear Augmented dicky Fuller test (ADF).

So, the estimated values of gross domestic production per capita, direct credit to the private sector,

inflation, and population variables are significant at the level on 1% and 5 % level of significance, i.e., integrated order I (0) including only intercept without trend term in this technique. while the other variables such as household expenditures and Personal remittance received are significant at their first difference i.e., integrated order I (1) with only intercept term at 1% and 5 % level of significance. These results show that among all chosen variables for our study, some variables are stationary at a level while other variables are stationary at their first difference (mixed order of integration). This process indicated that we can proceed with the ARDL model as it will give efficient and realistic estimation.

Table 2. Unit Root Test

Variables	Intercept		Intercept with trend	
	Levels	First Difference	Levels	First Difference
HCE	0.4462	0.0124**	0.6957	0.0507*
GDP	0.0058***	0.0021***	0.0364**	0.0113**
DCPS	0.0371**	0.0011***	0.1358	0.0067***
INF	0.0063***	0.0346**	0.3097	0.0223**
PRR	0.1007	0.0070***	0.2981	0.0191**
POP	0.0022***	0.6797	0.4459	1.0000

*10% Level of significance, **5% Level of significance, ***1% Level of significance
Source: Author’s Estimation

Table 3. Bounds Test Co-integration Results

F-Bounds Test		Null Hypothesis: No levels of relationship		
Test Statistic	Value	Signif.	I (0)	I (1)
			Asymptotic: n=1000	
F-statistic	13.07722	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

The result of the Bounds test is presented in table 3 above. Given that the F-statistic exceeds the upper bound critical value at all conventional significance levels, we reject the null hypothesis of no

cointegration. This indicates that there is strong evidence of a long-run relationship among the variables in the model. Therefore, we specify an error correction model below:

$$\Delta HCE_t = \alpha_{01} + \sum_{i=1}^{q1} a2j\Delta GDP_{t-i} + \sum_{i=1}^{q2} a3j\Delta INF_{t-i} + \sum_{i=1}^{q3} a4j\Delta DCPS_{t-i} + \sum_{i=1}^{q4} a5j\Delta PRR_{t-i} + \sum_{i=1}^{q5} a6j\Delta POP_{t-i} + \lambda ECT_{t-1} + e_{1t}$$

The results of this estimation are presented in Table 4 below. The results show that GDP, inflation direct credit to the private sector, inflation, remittances, and population are all significantly affecting household consumption expenditure in the short run. Because their p-values are less than 0.05 at a 5% level of significance. For the long-run effect, the CointEq (-1)* is negative and statistically significant. It means that the short run is adjusted with high speed in the run approximately 108%. Therefore, GDP, inflation direct credit to the private sector, inflation, remittances, and population are all significantly affecting household consumption in the long run.

The results mean that GDP per capita has a statistically significant impact on household consumption expenditures. This result correlates with the finding of [6] which is quite agrees with the results and supported by Keynes's consumption theory because GDP per capita relates to the average income each person in an economy gets thus, when it increases, it also increases household consumption holding other factors constant.

As the availability of credit to the private sector increases in the

economy households will increase their consumption expenditures. This result is supported by the findings of [6].

The variable personal remittance received as personal remittances are positively related to household expenditures. As the flow of remittances increases in the economy, household consumption expenditures also increase, which means remittances have a statistically significant impact on household expenditures and this finding is similar to the result [6].

As the population of Gambia increases the households will also increase their consumption expenditures.

R- R-squared shows the goodness of fit of the model, in other words, it shows how much variation has been explained in the dependent variable due to independent variables. As this value approaches 1, means model is the best fit. In our model estimation, the R- R-square is 0.98, which implies this model is 98% showing the variation in dependent variables due to all selected independent variables, and f statistics of 0.0000 shows that the overall model is statistically significant as it is less than alpha at 5% level of significance.

Table 4. ARDL Results

ECM Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP_PER_CAPITA)	1555437.	105210.8	14.78401	0.0000
D(INF)	44608177	4663715.	0.000000	0.0000
D(PRR)	1.891255	0.234337	8.070651	0.0000
D(DC_TO_PRIVATE_SECTOR)	14528876	4481051.	0.000000	0.0000
D(POP)	4159.972	314.2921	13.23600	0.0000
CointEq(-1)*	-1.082917	0.089480	-12.10227	0.0000
R-squared	0.983805	Mean dependent var		20239075
Adjusted R-squared	0.978744	S.D. dependent var		2.20E+08
S.E. of regression	32012333	Akaike info criterion		37.62814
Sum squared resid	1.64E+16	Schwarz criterion		37.92570
Log-likelihood	-407.9096	Hannan-Quinn criteria.		37.69824
Durbin-Watson stat	3.163126			

5. CONCLUSIONS

The objective of the study is to examine the impact of macroeconomic factors on household consumption expenditure in the Gambia using the ARDL method. The study first determines the stationarity of the variables and also the Bounds test for cointegration. The results of this estimation are presented in Table 4 below. The results show that GDP, inflation direct credit to the private sector, inflation, remittances, and population are all significantly affecting household consumption expenditure in the short run. Because their p-values are less than 0.05 at a 5% level of significance. For the long-run effect, the CointEq(-1)* is negative and statistically significant. It means that the short run is adjusted with high speed in the run approximately 108%. Therefore, GDP, inflation direct credit to the private sector, inflation, remittances, and population are all significantly affecting household consumption in the long run.

Furthermore, to boost household consumption expenditure in the Gambia, this study recommends that the government should use a mixed policy strategy. First, the government through the Central Bank should

reduce the lending rate which will give households access to finance at a cheaper rate which stimulates consumption. Again, the reduction in lending rate will make investment cheap for a producer for the cost of loan thereby reducing the prices of goods and services. Secondly, the government can use fiscal policy to stimulate household consumption through a tax cut, and subsidizing doing so will help to increase disposable income as well as reduce the cost of production for producers which will reduce the prices of goods and services ultimately enhancing household consumption. Besides, the government and other stakeholders can use a cash transfer mechanism to increase household income, especially during crises to boost household consumption in the Gambia.

Finally, limitations were noticed during this study, since the paper aims to examine the impact of macroeconomic variables on household consumption expenditure in the Gambia, thus the study could not include other macroeconomic variables such as unemployment and interest rate which may have a direct or indirect impact on household consumption. Therefore, future researchers are advised to include these variables in their study.

REFERENCES

- [1] C. O. Bonsu and P.-F. Muzindutsi, "Macroeconomic determinants of household consumption expenditure in Ghana: A multivariate cointegration approach," *Int. J. Econ. Financ. Issues*, vol. 7, no. 4, pp. 737–745, 2017.
- [2] World Bank Group, "Retrieved from World Bank Indicators," 2023.
- [3] African Development Bank Group, "Retrieved from African Development Bank Group," 2023. <https://www.afdb.org/en> (accessed Jul. 10, 2023).
- [4] W. Enbeyale, Y. Meslie, and D. Pandey, "Determinants of Household Consumption Expenditure in Tepi Town," *Int. J. Intell. Comput. Technol.*, vol. 4, no. 1, pp. 40–56, 2020.
- [5] Y. Keho, "An econometric analysis of the determinants of private consumption in Cote d'Ivoire," *Theor. Econ. Lett.*, vol. 9, no. 4, pp. 947–958, 2019.
- [6] C. O. Iheonu and T. Nwachukwu, "Macroeconomic determinants of household consumption in selected West African countries," AGDI Working Paper, 2020.
- [7] C. N. Ekong, U. E. Effiong, C. N. Ekong, U. E. Effiong, and C. N. Ekong, "Economic determinants of household consumption expenditures in West Africa: A Case Study of Nigeria and Ghana," *GSJ*, vol. 8, no. 9, pp. 385–398, 2020.
- [8] T. Habanabakize, "Determining the household consumption expenditure's resilience towards petrol price, disposable income and exchange rate volatilities," *Economies*, vol. 9, no. 2, p. 87, 2021.
- [9] K. Guo and P. M. N'Diaye, *Determinants of China's private consumption: an international perspective*. International Monetary Fund, 2010.
- [10] M. Damane, "Empirical analysis of private consumption in Lesotho: An ARDL bound test approach," *Mod. Econ.*, vol. 9, no. 3, pp. 400–421, 2018.
- [11] P.-F. Muzindutsi and T. Mjeso, "Analysis of South African household consumption expenditure and its determinants: Application of the ARDL Model," *EuroEconomica*, vol. 37, no. 3, pp. 169–179, 2018.
- [12] S. Junejo, I. Hamadou, and A. Haidari, "From Debt Trap to Economic Prosperity: Solow Model Analysis of the Impact

of External Debt on Indonesia's Growth," *Cogniz. J. Multidiscip. Stud.*, vol. 4, no. 2, pp. 28-39, 2024, doi: 10.47760/cognizance.2024.v04i02.003.