IMPACT OF MICROCREDIT ON POVERTY REDUCTION IN NIGERIA

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Abstract

This study investigates the relationship between microcredit and poverty reduction in Nigeria using regression analysis with Ordinary Least Squares (OLS) on time-series data from 2003 to 2022. The findings reveal a significant and persistent association between the poverty index and microfinance loans, unemployment, and interest rates. Unemployment and microfinance loans adversely impacted poverty alleviation, while interest rates had a similar negative effect, leading to rejecting the null hypothesis. The analysis indicates that microcredit and interest rates significantly reduce poverty and enhance living standards in Nigeria. Consequently, the study recommends that microfinance institutions should strengthen and expand their outreach to the most impoverished segments of the population to effectively contribute to poverty alleviation efforts.

Keywords: Micro Credit, Poverty Reduction, Unemployment Rate, Interest Rate, Micro Finance

I. Introduction

Poverty continues to be a common scourge for many countries, especially developing ones, globally. Based on the National Bureau of Statistics, “the poverty level is 69% in general, with 73% relative poverty in rural areas and 61% relative poverty in urban areas. The absolute poverty level is 66%, whereas the relative poverty is 52% in urban areas. Poverty in Nigeria has several dimensions, one of the vital points is poor access to government utilities and services, insufficient infrastructure” in rural areas; illiteracy and ignorance, ill-health conditions, insecurity, and social and political exclusion (NBS, 2022). By 2022, the COVID-19 pandemic has caused another 4.5 million people to become poor. In addition, the economic shock from the pandemic is likely to be more severe than in the 2016-2017 recession. Although the economy grew at 0.11 percent and the country emerged from its second recession, practically zero growth makes the path to poverty reduction even more challenging. Interest in microfinance or microcredit programmes, through which the public and private finance sectors in Nigeria provide tiny loans to individuals or groups of people, has attracted the most attention in the finance situation in Nigeria in recent years. Internationally and nationally, policymakers have recognized the importance that small-scale businesses might play in the process of the country’s economic development and alleviation of poverty. To achieve consistent economic growth in practice, the government must introduce specialized programmes that will generate economic advantages to lessen poverty by promoting robust economic growth and self-help through access to credit (Ngong, et al; 2021).
According to United Nations (2020), Microcredit refers to “the provision of small loans to poor and low-income populations who do not have access to traditional banks and credit”. Micro-credit institutions are important to households and micro-enterprises in meeting their financial needs. This is because conventional financial institutions have fallen short by failing to provide enough savings or working credit services to the targeted underserved.

Micro-credit institutions and programmes developed in response over time. It provides a good tool for poverty reduction from the supplier's perspective. Micro-credit emerges as a potent tool for addressing poverty, as it diminishes capital constraints, facilitates investment, evens consumption patterns, and addresses sudden liquidity needs. When it comes to demand, these institutions develop and mobilize deposit schemes for the poor and allow them to earn interest on their savings. They function to achieve the main objective of reducing poverty in society; thus, all activities and strategies are focused on poverty reduction and eradication of others.

However, it is pertinent to mention that the Nigerian government has always prioritized poverty reduction. Many poor alleviation programmes have been introduced by the administration of the Federal Republic of Nigeria. These include the National Directorate of Employment, National Poverty Eradication Programme (NAPEP), Agricultural Development Programme, Directorate of Food Roads, and Rural Infrastructure (DFRRI), and National Economic Empowerment & Development Strategy (NEEDS), among others. Unfortunately, they have not made the desired impact.

Amid these economic challenges and shocks, any poverty reduction-oriented economic programme must be resilient and adaptive. It must be crafted to meet the specific needs and vulnerabilities of the poor and most vulnerable in society. Such a programme would include measures that would lead to economic growth as well as promote sustainable development geared towards sustainable poverty reduction. The potential of microcredit in driving economic growth and poverty reduction notwithstanding, its impact on poverty alleviation, rural poverty in the case of Nigeria, has yielded very few successes. The continued rut of poverty experienced in the country's rural regions, where a sizeable number of citizens live, and engage in agriculture or other subsistence-based and small-scale economic activities, has necessitated more scrutiny to determine the extent of its efficacy. This study, therefore, aims to evaluate microcredit poverty reduction in Nigeria, in terms of factors such as microfinance loan disbursements, unemployment rates, and interest rates that have contributed to the rural-urban poverty gap development in Nigeria over the period 2003 – 2022. Research carried out by Oluwatobi and Alege (2018), Babajide and Ogunleye (2020), Adekanye & Asaolu (2020), and Ogundipe et al. (2020) did not investigate these three factors together in a single study but to the best knowledge of the researchers now this is the only study that combines the three factors in a single empirical study. Quarterly data has been sourced to conduct the study due to the paucity of annual data of small sample observations of 30 years.

Research Questions

The following research questions are posed on the impact of microcredit on poverty reduction in Nigeria:

i. To what extent do Microfinance bank loans have an impact on the reduction of poverty in Nigeria?
ii. Is there a relationship between unemployment rate and poverty reduction in Nigeria?
iii. Does interest rate influence the reduction of poverty in Nigeria?

II. Literature Review

Microcredit: A Complex Tool for Poverty Reduction in Nigeria

Microcredit is a mechanism, which is widespread in Nigeria and equips impoverished individuals with small loans. However, its effectiveness is still debatable. Babajide and Ogunleye (2020) argue that it can be considered a mechanism of empowerment whereas credit per se is not enough. Another research by Adekanye & Asaolu (2020) claims that microcredit is hardly viable without auxiliary services that empower borrowers to properly manage their finances.

Despite these numerous limitations, microcredit can be considered a mechanism of empowerment for disenfranchised groups as women, rural farmers, and small-scale entrepreneurs have to access loans which are unavailable at ordinary banks and be financially inclusive (Babajide & Ogunleye, 2020).

The Federal government has acknowledged this possibility and promotes microfinance institutions and microcredit access. The following aspects underline the multifaceted impact of microcredit. Firstly, access to financial services strengthens financial well-being. Secondly, most respondents spend money on start-ups, income generating, and input activities which help improve household income and living conditions (Adekanye & Asaolu, 2020).

Taking all the abovementioned into account, it is possible to conclude that this mechanism is a double-edged sword. It implies empowerment and dependency, but its success depends on the comprehensive framework, which presupposes credit, financial literacy, and other associated services. Consequently, new studies are yet to come concerning the abovementioned mechanisms' impact optimization.

Unemployment: A Thorn in Nigeria's Path to Prosperity

Another significant impediment to poverty reduction is the high level of unemployment in Nigeria. Demonstrating a high correlation between unemployment and poverty, Oluwatobi and Alege (2018) gave statistically supported evidence, and to some extent, the same conclusion was found in Adeleye et al. (2020). The National Bureau of Statistics (2020) also illustrates the scale of the issue. However, it is not only a challenging statistic – unemployment means people do not have the necessary means to meet their basic needs, and it keeps them in a vicious cycle of poverty. Thus, Adeleye et al (2020) were fully correct in their statement that unemployment must be an essential target for poverty alleviation. There is, however, some hope in the World Bank (2020). They state that the best steps to tackle the issue are economic diversification, investing in education, entrepreneurship development, and social safety nets. Thus, Nigeria should follow these recommendations and demonstrate that such studies can be changed and improved.

Interest Rates: A Balancing Act for Poverty Reduction in Nigeria

Nigeria is confronted with a complicated task in setting the rates that can ensure robust economic expansion without undermining poverty alleviation efforts. According to Adeola and Evans (2018), credit affordability is a significant driver of growth for small businesses and low-income people. The latter can use it to engage in income-producing activities to lift themselves out of poverty. In their view, policies that promote financial inclusivity will set the rates that target these neglected people. Nevertheless, Ogundipe et al. (2016) explain, that this might not be straightforward. They analyzed the impact of rates on the poor dynamics in Nigeria showing that lowering the cost of borrowing could lead to further impoverishment. This outcome is because the rates might be low at a time of high inflation, making the actual cost of borrowing high. After all, the currency is substantially weakened which is then managed by the Central Bank of Nigeria (CBN). This requirement is because it always makes monetary decisions, which determine the rates. It is doing so by expanding credit to Micro, Small, and Medium Enterprises (MSMEs) out of the reach of conventional banks, demonstrating that the institution is aware that a general reduction might not be helpful. In conclusion, a combination of the CBN's targeted increases and fiscal policy is necessary to promote financial inclusion, entrepreneurship, and poverty alleviation.

Theoretical Framework

Credit Availability Theory: Scholars such as Khandker (1998) and Khandker and Faruqee (2003) have put forward this theory. They argue that availability to loans can reduce poverty since it allows the less fortunate invest in activities that generate revenue, maintain consumption levels at par, as well as create assets. They also state that with microcredit easily accessible small businesses owned by individuals from low-income brackets can be started or expanded thereby increasing their earnings while reducing poverty rates at the same time (Khandker 1998; Khandker&Faruqee 2003).

This theory is appropriate for this study because it frankly addresses the impact of microcredit on poverty reduction. It will therefore try to test if indeed this idea holds within Nigerian context by examining the link between microcredit and levels of impoverishment in Nigeria.

Empowerment Theory: Mayoux(1998), Kabeer(1999), and others propounded empowerment theories based on credit provision for poor women especially those living in rural areas who are believed to benefit most from these schemes in terms of gaining economic independence which would enable them to make decisions about their own lives thus improving general welfare. According to this theory, access to microcredit can enhance the self-confidence, social status, and bargaining power of the poor, leading to positive changes in their lives and communities (Mayoux, 1998; Kabeer, 1999).

This theory is suitable for this research because it points out the potential non-economic benefits of microcredit, which can indirectly contribute to poverty reduction by enhancing the capabilities and agency of the poor.

Empirical Review

Microfinance, which involves granting small loans to the impoverished, is one of the most widely used strategies to reduce poverty in Nigeria. However, the research shows a mixed and complex picture of this approach. On the one hand, its effectiveness was proven by several studies. For instance, Mohammed et al (2022), concluded that microfinance banks in Gombe State have a positive beneficial effect on low-income residents and improve microbusinesses' performance. Sheriff and Abubakar (2021) came to similar conclusions in their research in Kano State that microcredit has a positive impact on income, expenditure, and poverty reduction. Onwuka (2021) highlights the increased need for microcredit and its potential to reduce poverty during the COVID-19 pandemic. On the other hand, Collin et al (2022), take a different approach by claiming that microfinance might reduce poverty in the short term but increase it in the long run. More so, they argue that long-term poverty reduction is better ensured by the development of small and medium enterprises and agricultural transformation. Finally, Chaouachi and Chaouach (2021) argue that microfinance also plays a lesser role in poverty reduction compared to financial development. In addition, Zinyu, et al. (2022) warn that findings obtained in other countries may not apply to the situation of Nigeria. These findings form a rather incoherent picture of the potential of microfinance to reduce poverty in Nigeria. Therefore, more research into this area is needed to clarify the most effective strategies for using microfinance for poverty reduction in Nigeria.

III Methodology

The research design considered suitable for this study is an ex post facto research design. This is because the interest of this study focuses on the viable relationship between dependent and independent variables and the description of how regressors predict variation in the dependent variable. The study used secondary data collected quarterly from the Central Bank of Nigeria (CBN) Statistical Bulletin, Macrotrends, and World Development Indicator from 2003 to 2022 to examine the impact of microcredit on poverty reduction in Nigeria. For a time series analysis, the data point should be a least 30 for a small sample but because of the paucity of data, the study will utilize quarterly data.

Model Specification

The implicit form of the modified model is presented as:

PI = f (MFL, UNEMP, INTR)
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This implies that the poverty index is a mathematical function of microfinance bank loans, unemployment rate, and interest rate this will yield the model as follows:

$$PI_t = \beta_0 + \beta_1 MFL_t + \beta_2 UNEMP_t + \beta_3 INTR_t + \mu_t \qquad \text{ii}$$

Where:

PI = Poverty Index.
MFL = Microfinance Banks Loan
UNEMP = Unemployment rate
INTR = Interest Rate

Since the model contains a mix of variables with higher and lower absolute values, the Natural log (log) functional form of the model is given below:

$$\ln PI_t = \beta_0 + \beta_1 \ln MFL_t + \beta_2 \ln UNEMP_t + \beta_3 \ln INTR_t + \mu_t \qquad \text{iii}$$

β_0 is a constant or intercept, β_1, β_2, and β_3 are regression coefficients, μ_t is the stochastic error term.

APriori Expectation

$\beta 0 > 0$, $\beta 1 > 0$, $\beta 2$, and $\beta 3 > 0$.

IV Result and Discussion of Findings

Table 1: Descriptive Statistics

	PI	MFL	UNEMP	INTR
Mean	91.65195	54403.72	4.322143	16.49773
Median	90.80000	56584.49	3.805000	16.80500
Maximum	94.00000	87343.00	6.000000	20.71000
Minimum	89.50000	9954.800	3.700000	11.50000
Std. Dev.	1.734688	23314.50	0.772032	1.997373
Skewness	0.462811	-0.513420	1.105070	-0.947082
Kurtosis	1.519439	2.070279	2.722056	4.169720
Jarque-Bera	9.781685	6.156089	15.91965	15.90084
Probability	0.007515	0.046049	0.000349	0.000353
Sum	7057.200	4189087.	332.8050	1270.325
Sum Sq. Dev.	228.6947	4.13E+10	45.29858	303.2018
Observations	77	77	77	77

Source: Authors' Computation (2024)

The descriptive statistics in Table 1 indicate that the average mean value of PI is 91.65195, which means that the average Poverty Index in Nigeria within the period under review is 91.65195; consequently, the mean value of MFL, UNEMP, and INTR stood at 54403.72, 4.322143, 16.49773 respectively, which represents the average value of the variables within the period under review.

The maximum and minimum values show the highest and lowest figures in each of the variables, while the standard deviation shows the deviation from the sample mean, concerning each of the variables.

Table 2: Correlation Matrix of the Datasets

Correlation	PI	MBP	UNEMP	INTR
PI	1.000000			
MFL	-0.795270	1.000000		
UNEMP	-0.449827	0.699940	1.000000	
INTR	0.379625	-0.677309	-0.774342	1.000000

Source: Authors' Computation (2024)

Table 2 above gives a preliminary idea of the relationship between Poverty Index (PI), Microfinance Loan (MFL), Unemployment Rate (UNEMP), and Interest Rate (INTR). The table reveals that PI and MFL have a strong and negative relationship; it also reveals a weak negative relationship between PI and UNEMP and a weak positive relationship between PI and INTR.

Table 3: Ordinary Least Squares Estimation Output

Dependent Variable: PI
Method: Least Squares
Date: 04/14/24 Time: 18:25
Sample (adjusted): 2003Q1 2022Q1
Included observations: 77 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	99.00106	2.419051	40.92557	0.0000
MFL	-7.53E-05	7.23E-06	-10.41675	0.0000
UNEMP	0.121642	0.253752	0.479375	0.6331
INTR	-0.229074	0.095215	-2.405858	0.0187

R-squared	0.680180	Mean dependent var	91.65195
Adjusted R-squared	0.667036	S.D. dependent var	1.734688
S.E. of regression	1.000967	Akaike info criterion	2.890360
Sum squared resid	73.14125	Schwarz criterion	3.012116
Log-likelihood	-107.2789	Hannan-Quinn criter.	2.939062
F-statistic	51.75102	Durbin-Watson stat	0.143684
Prob(F-statistic)	0.000000		

Source: Researcher's computation using E-views, 2024.

Referring to the E-Views 10.0 regression output in Table 3, the Adjusted R-squared value is pegged at 67%, indicating a strong linear relationship between the dependent variable PI (Poverty Index) and the selected independent variables. Supporting this, the F-statistic (F = 51.75, p-value = 0.000) is significant at the 5% level, suggesting that the independent variables

(MFL – Microfinance Loan, UNEMP- Unemployment Rate, and INTR - Interest Rate jointly explain the variations in the dependent variable PI.

Interpretation of Regression Coefficients

According to the Regression coefficient, the values of the models are given below as:

$lnPI_t = \beta_0 + \beta_1 lnMFL_t + \beta_2 lnUNEMP_t + \beta_3 lnINTR_t + \mu_t$

$lnPI_t = 99.00106 - 7.53 lnMFL_t + 0.1216 lnUNEMP_t – 0.22907 lnINTR_t + 2.4199051$

The value of the intercept (α) which is 99.00106 indicates that when all the independent variables are held constant, the Poverty Index (FCEH) would increase by 99.00106 units. The estimated coefficient (β1) for MFL – Microfinance Loan is 7.53. This negative coefficient, which is significant at the 5% level, suggests that a unit increase in MFL would lead to a reduction of 7.53 units in the Poverty Index over the study period which is also consistent with the apriori expectation. Furthermore, the estimated coefficient (β2) for UNEMP- Unemployment Rate is 0.1216. This positive but insignificant coefficient indicates that a unit increase in the Unemployment Rate would result in a 0.1216 unit increase in poverty, proxied by the Poverty Index, during the study period. This is also consistent with the apriori expectation. However, the estimated coefficient (β3) for INTR - Interest Rate is -0.22907. This negative and significant coefficient, at the 5% level, implies that a 1% increase in interest rate would lead to a 0.22907-unit reduction in poverty as proxied by the Poverty Index.

V Conclusion and Recommendations

Conclusion

Based on the regression analysis findings, it can be concluded that both Microfinance Loans (MFL) and Interest Rates (INTR) assert a negative and significant influence on poverty reduction in Nigeria, indicating that microcredit can help boost the standard of living by reducing poverty. However, the Unemployment Rate (UNEMP) is seen to have a positive and insignificant impact on the Poverty Index (PI) over the period under consideration.

Recommendations

Consequently, the following recommendations are made:

i. MFBs need to be efficient and extend to cover the poorest sectors of the society in Nigeria.
ii. Develop financial products that are particular to the disadvantaged if they are going to be successful partakers of the microfinance sector.
iii. The government can ensure a stable macroeconomic condition. This will lay the basis for sustainable economic rise and poverty eradication.
iv. The government is supposed to fulfill their promise according to the Micro-Finance Policy Framework. This includes smooth access to credit for disadvantaged groups, in particular rural inhabitants.

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