Micro Financing and Economic Development: A Sectorial Microcredit Study from Nigeria

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ABSTRACT: This study examined the effect of sectorial microcredit allocation on Nigeria economic development. Time series data were sourced from Central Bank of Nigeria Statistical Bulletin from 1992-2019. Nigeria per capita income was proxied for dependent variables while microcredit to agricultural sector, mining and querying, manufacturing sector, real estate and construction and transport and communication were proxies for independent variables. The study employed descriptive statistics and multiple regression models to estimate the relationship that exists between sectorial microcredit allocation and economic development. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The study found that 59 percent variation on Nigeria per capita income can be traced to variation on microcredit allocation to the various sectors of the economy. microcredit to transport and communication have positive and no significant effect, microcredit to real estate and construction have negative but no significant effect, microcredit to manufacturing sector have negative and significant, microcredit to mining and querying have positive and significant effect while microcredit to agricultural sector have positive and significant effect on Nigeria per capita income. From the findings, the researcher concludes that microcredit allocation have significant effect on Nigeria economic development. It recommends that for re-introduction of the abolished compulsory sectorial lending operation and sectorial reforms to attract microcredit. Microfinance banks should be encouraged to increase their branches so as to reach out and provide loans to more clients in order to achieve greater investment purposes. Government should further encourage the activities of micro finance banks by creating enabling environment so that they can further support the growth of business enterprises in Nigeria.

KEYWORDS: Micro Financing, Economic Development, Sectorial Microcredit, Manufacturing Sector, Mining and Querying

INTRODUCTION

The core objectives of National Integrated Rural Development Plan (2000) for Microfinance banks are; to ensure significant reduction of poverty and ultimately its eradication in the shortest possible time; mobilize and empower rural population to create wealth through increased agriculture, industrial and other productive activities; promote the expansion of the productive base of the rural economy through the creation of non-agricultural enterprises; provide rural support services needed to bring about increased production of goods and services; provide access to extension services, input, credit and marketing services; and to raise rural productivity in general (Adebayo, 2018).

The Integrated Rural Development Plan identifies poverty reduction, mobilization of savings and financing agriculture as the three cardinal transmission channels through which micro financing enhances rural economic growth and development. Evidence Nigeria show that saving mobilization is one of the key activities in building a sound financial system (Murad and Idewele, 2017) however, in Nigeria, savings are often under mobilized. Two commonly cited underlying causes are: (1) prevalence of inappropriate saving products and poor services by depository institutions; and (2) lack of confidence in the safety or liquidity of financial institutions by rural people (Akani and Momdu, 2016).

The underlying theory of microfinance bank is that, by making financial services available to a previously excluded section of society, microfinance banks is aimed at providing the poor clients with capital for investments, extra liquidity to allow them to take advantage of economic opportunities as they arise, and the opportunity to accumulate assets and gain access to savings to help protect against shocks in times of need (Akanji, 2011). Economist and policy makers have attempted to explain how

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availability of capital constitutes part of an overall development strategy (HDI Report, 2010). Consequently, theory of microfinance and urban-rural development is derived from the general theory of development (Ezeh and Mbanasor, 2014). Microfinance and rural economic development conceptualization embraced by most country in recent years refers to a process through which sustained increase in the productivity and income of the urban-rural workers and household are attained (Apalia, 2017).

Despite its increasing roles, microfinance institutions are faced with a lot of challenges which include diversion of loan to non-productive uses, high rate of default in loan repayment, lack of infrastructure and problem of illiteracy among the rural populace. The Nigeria's estimate of unreachable client of microfinance reaches 40 million and Microfinance institutions in Nigeria have not been able to adequately address the gap in terms of credit, savings and other financial services required by the micro entrepreneurs and over 200 million people of Nigeria's active population (CBN, 2018).

The examinations carried out by the Central Bank of Nigeria (CBN) between March to June 2010 revealed that they failed to target their market "the active poor" (Chiazor, Jegede, Ozoya and Adebayo, 2018). Consequently, CBN closed down majority of the Micro Finance Banks (MFBs) due to various shortcomings and challenges experienced by the banks at the period. This led to the review of the existing Regulatory and Supervisory Guidelines policy in 2011. In 2013 NDIC in collaboration with the CBN conducted routine examination of 731 MFBs in Nigeria. The examination findings still revealed that some of the institutions were incapable of honoring their obligations to their customers as at when due. A total of 106 MFBs were subject of serious regulatory concern. Out of that number, 12 MFBs were rendering skeletal services, 4 were undergoing restructuring, 7 had voluntarily closed shop while the licenses of 83 others were revoked (Doçi, 2017). While there are many studies on the role of microfinance, most of the studies focused on microfinance and the performance of small and medium scale enterprises (Akani and Uzah, 2018; Andabai and Jessie, 2018; Asor, Essien and Ndiyo, 2016), this study examined the role of microfinance banks in economic development in Nigeria.

LITERATURE REVIEW

Micro Finance Bank

The term microfinance refers to the provision of financial services (generally savings and credit) to low-income clients. The clients are often identified as traders, street vendors, small farmers, service providers (hairdressers, rickshaw drivers), and artisans and small producers, such as blacksmiths and seamstresses (Ledgerwood, 1999). Microfinance is more than micro credit. Microfinance includes a range of financial services such as savings, credit, money transfers and insurance, among other things for poor and low-income people. For credit to be of help to people, the recipient should have the capacity to service the credit, in addition to having an intention to do so. According to Central Bank of Nigeria (2004), microfinance is about providing financial services to the poor who are traditional not served by the conventional financial institution.

Robinson (2001) points out that the term microfinance refers to small-scale financial services, primarily credit and savings, provided to people who farm or fish or herd; who operate small enterprises or micro-enterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages and commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and other individuals and groups at the local levels of developing countries, both rural and urban area. Akanji (2001) asserted that microfinance is the provision of very small loans (micro credit) to the poor, to help them engage in new productive business activities and/or to grow/expand existing ones. The author further states that microfinance recognizes the peculiar challenges of micro enterprises of their owners and the inability of the poor to provide tangible collateral and therefore promotes collateral substitution. Disbursement and repayment are structure to suit credit needs and cash flow patterns of small business. There are three features that distinguish microfinance products from other formal financial products. These are: (i) the smallness of loans granted or savings collected; (ii) the absence of asset-based collateral; and (iii) simplicity of operation. The Central Bank of Nigeria (2004b) recognizes that the existence of informal institution which is under its control and supervision through policy formulation would not only enhance monetary stability, but will expand the financial infrastructure of the country to meet the financial requirement of the micro, small and medium enterprises. The objectives of the microfinance institutions in Nigeria include:

(i) Promotion of rural development through financial intermediation

(ii) Stimulation of productive activities in the rural sector,

(iii) Development of banking habits in rural dwellers and ensuring the development of an integrated national financial system, and

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(iv) Improving the economic status of small scale producers in the rural and urban areas (Central Bank of Nigeria, 2008).

The Role of Microfinance Banks in Economic Development

Savings Mobilization and Credit Delivery

Microfinance is close to the rural dwellers, commercial banks find it difficult to establish contact in the rural areas due to insecurity and high overhead cost. Because of these, there is a lot of un-bankable population in the rural areas, hence there was no financial institution is available for use, this makes their marginal propensity to consume to be very high and the marginal propensity to save is given as low as 5% (Akanji, 2001). But with the advent of modern microfinance in these communities, most rural dwellers have developed the habit of saving; hence microfinance banks now tie any credit advance to compulsory saving. Such savings now earn interest for the people and encourage savings by the rural population.

Credit is defined as a condition which enables a person to extend his control as distinct from his ownership of resources (Livingstone, 1934). Teriba (1973) examined the role of credit facilities in rural development and asserted that rural credit can be used to induce rural change through helping to finance innovations. Torku (1991) contended that the provision of credit is not only for providing the facilities that are needed to meet the existing needs but also providing new credit needs. It may serve as the basis of partnership between the government which may provide the credit and the rural community to which it is provided.

However, it can also serve as a means of income redistribution and of guiding the allocation of resources. All good credit system must, therefore, permit a free flow of resources between sectors and between income classes so as to bring about efficient resource allocation. Credit should be used to create productive employment to absorb the unemployed people; it should be carefully used, however, because it has both positive and negative implications. On one hand, it could be used to increase human welfare; however it could also be used to increase human misery.

As Anyanwu (2014) opined, even though Nigerians are generally enterprising and industrious, more than half of them do not have access to commercial banking service, instead relying heavily on informal micro credit institutions like microfinance banks for credit. Indeed, relying on the CBN (2001) survey, he argued that microfinance banks in Nigeria are not enough for a country of more than 120 million people. Related to the above, the availability of land for farming activities, which most of the rural dwellers engaged in, is not enough to guarantee more productive cultivation since agricultural enterprises is capital intensive (Adeolu, 2014) and there is less capital in rural areas. This could have been the reason why rural areas, despite their abundance arable land, remain most affected by poverty.

Assets Financing

Most microfinance banks help their customers to acquire some needed assets and allow them to pay within a specific period of time. For instance, hair dressers and barbers need generators for the smooth operation of their business due to the epileptic power supply in Nigeria. Some do not have the finance to get their assets. Men and women who are into frozen foods also need some equipment that they cannot afford due to their limited resources, and some that are into business centers also need certain assets to start off. Such assets are computer sets, generators, office equipment and household items. Their microfinance banks arrange with the suppliers to supply these items to their customers and allow their customers to pay back within a specific period.

THEORETICAL FRAMEWORK

The Demand-Following and Supply-Leading Hypothesis

The demand following financial theory refers to a kind of finance development that reacts positively to economic activities. The supply-leading finance on the other hand refers to the establishment of financial institution in some areas before the demand for their service is considered. Demand-following and supply-leading financial theory are rooted in the fact that the financial system may be simultaneously growth inducing and growth induced. They both emphasized that the most relevant issues for development is the efficiency with which the financial system provides financial institutions. They linked the supply of initiatives, enterprise and finance by financial institution to be the creation, transformation and expansion of industries and other development oriented ventures.

The direction of these finance theories may interact at a point in time and overtime, there may be changes in prominence played by each type as the economy develops Hugh (2004) and Jhigan (2004). The creation of the rural banking scheme arising from the Pius Okigbo financial review committee in Nigeria (1976) was a direct response to the supply-leading finance theory and the scheme was adopted by government to decongest the urban centers of banks and promote the development of banking habits, culture and service in rural areas. The demand-following finance theory is a situation where financial institutions

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establish in urban centers where the demand for their service is already intact or exist. In the supply-leading finance theory, the challenges are to identify nascent firms, promote and support same to maturity in order to boost grassroots entrepreneurship. Financial institutions here stimulate effective entrepreneurial response for positive economic development. This position is anchored on the assumption that the growth of the financial sector is dependent on the growth and commercialization of other sectors. It does not encourage savings, hence it impedes development. Critics of the supply-leading finance theory posited that there are lots of idle funds lying waste when there are viable projects in the urban centers that need such funds to establish leading to the under-utilization of potentials/resources.

Financial Liberalization or Repression Hypothesis

In the 1960s and 1970s, government intervention in the financial sector was rampant. It was done through setting of interest rates, imposition of high reserves requirements as well as quantitative restrictions on credit allocation. Some authors including Mckinnon (1973) and Shaw (1973) and Gurley and Shaw (1961) observed that that position explained the low savings, credit rationing and hence low investment: the so called financial repression. These authors then proposed the financial liberalization thesis which essentially involves the freeing of financial markets from government intervention and allowing the market determine the price and allocation of credit. This theory is based on the assumptions of perfect information, profit maximizing competitive behaviour by financial institutions. Several channels of transmission have been identified in the literature. Goldsmith (1963) proposes the marginal productivity of capital. In this case, if interest rate is lower than the equilibrium rate of interest, high quality projects are not undertaken. Mckinon and Shaw suggest two other channels. The first, financial repression affects how efficiently savings are allocated to investment and second, through its effects on the return to savings.

Consequently, investment suffers not only in quantity but also in quality terms since bankers ration the available funds according to the marginal productivity of investment projects but according to their own discretion. Under this condition, the financial sector will be most likely in a state of stagnation. Savers are then forced to hold their savings in the form of unproductive assets rather than potentially productive bank deposits. In the light of the above proposition, the policy implications of the financial liberalization theory are evident. The direction is classic: remove interest rate ceilings, reduce reserve requirements and abolish direct credit programs.

Empirical Review

Onyebinama and Onyebinama (2010) investigated the activities of Microfinance banks as a veritable tool for reducing poverty and unemployment in developing economies. He made use of both theoretical and empirical literature review. He identified the needs for the establishment of Microfinance Banks, microfinance policies and goals, policy strategies, frameworks for the supervision of microfinance banks and the challenges of MFBs in Nigeria. From the findings, the study recommended that the banks should provide diversified, affordable and dependable financial services to the active poor to enable them develop sustainable entrepreneurial activities. He further suggested the need to create employment opportunities and increase the productivity of the poor in Nigeria, thereby increasing their individual household income and uplifting their standard of living.

Oyedele, Ogunlade and Adeleke (2018) investigated the flow of microcredits and its accessibility to customers especially women entrepreneurs in Kwara State, Nigeria. The study established that majority of financial products/services, such as local purchase order, assets financing, hire purchase, emergency loan and cheque discounting, that were made available to customers were not accessible by women entrepreneurs in Kwara State. Descriptive cross-sectional research design was employed to collect data by means of structured questionnaire from total number of forty (40) microfinance managers and forty (65) registered women entrepreneurs through purposive technique as a sample size for the study. Data were analyzed using descriptive statistics. Results revealed that majority of financial products/services, such as local purchase order, assets financing, hire purchase, emergency loan and cheque discounting, that were made available to customers were not accessible by women entrepreneurs in Kwara State. Results also revealed that diversion of loan, delay in loan repayment, patriarchal culture and lack of business plan were most challenging issues faced by microfinance institutions in financing women entrepreneurs, while interest rate charged by MFBs, conditions of loans, frauds and forgeries, payback period, regulatory and supervisory loopholes and non-\availability of microfinance banks in rural areas of Kwara State were major obstacles preventing women entrepreneurs from being financially inclusive. The study therefore recommended that Central Bank of Nigeria should recapitalized microfinance banks and encourages them to relax the conditions of loans, reduce interest rate, to bring MFBs to closer to the people and to sensitize more women about its products / services.

Rich (2018) examined the socioeconomic impact of the largest microfinance institution, from the perspective of the borrower, in a rural community in Puerto Princesa City, Palawan, Philippines. Thirty members from the center for agriculture and rural

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development were interviewed to better understand their motivation to join a microfinance institution, and the spending and savings habits after receiving micro-credit loans. This paper examined the most common reasons for participating: life insurance; a savings account; education; and, the cycle of perpetual debt. It also examines the most successful borrowers, the more common types of businesses members engage in, and why some women borrow money for their husbands. Although a few members have achieved financial success through micro-credit loans to grow their business, most members interpret these loans as another opportunity to borrow to makes ends meet and for consumption smoothing.

Chiazor, Jegede, Ozoya, and Adebayo (2018) assessed the impact made by Covenant Microfinance Bank on Small Scale Businesses in Ota and its environs since inception. Survey method was employed in this study. Copies of questionnaire were administered to respondents systematically selected from the list of CMFB loan beneficiaries. 180 CMFB Microcredit beneficiaries were selected for the purpose of this study. A total of 160 of the respondents returned their questionnaire.The data collected which were essentially descriptive in nature, were coded, and processed into percentages and frequency tables. Findings from this study show that majority of the respondents have been empowered and lifted from poverty, as they were able to utilize the microcredit, they obtained from the Bank in expanding their businesses and thus, establishing the fact that micro-financing is a powerful tool for poverty alleviation. It is the view of the researchers that further studies be undertaken to assess CMFB impact on other categories of the bank's customers not covered by this study.

Murad and Idewele (2017) examined the impact of microfinance institution on economic growth in Nigeria. The study employs the multiple regression analysis given that the data are cross-sectional and time series in nature. Secondary data of all commercial banks were extracted from the Central Bank of Nigeria statistical Bulletin and Annual Reports. Data used in this model are time series secondary data for the period 1992 to 2012.The findings of the study show that microfinance loans have a significant positive impact on the short run economic performance in Nigeria. Microfinance loans enhanced consumption per capita in short runs with an impressive coefficient, although these bank loans do not have a significant impact on economic growth in the long run. Microfinance investment however, has a significant impact on economic performance in Nigeria in the long run. Although micro finance loans are relevant in growth process in Nigeria, other measures such as boosting agricultural production and taking appropriate steps to enhance per capita income are equally important in boosting the Nigerian economic growth. We recommend that, microfinance institutions should loan to improve consumption in the short run, while the long run goal should be to improve investment and other capital accumulation.

Doçi (2017) analyzed empirically the relationship between the gross portfolio of MFIs and macroeconomic factors in Albania over a period of 1999 to 2014. Specifically, the study analyzed whether a country with high level of credit portfolio provided by micro financial institutions has low poverty and macroeconomic factors taken into analysis, considering the endogeneity of the gross portfolio of Micro Financial Institutions. The study employs the Autoregressive Distributive Lag Model. The empirical evaluation and analysis is carried out through econometric evaluation using the E-Views program. The study observes that the supposed model is an important model and macroeconomic factors have an impact on gross loan portfolio's performance.

Ekpete and Iwedi (2017) examined financial intermediation functions of microfinance banks in Nigeria from 1992-2014, econometrically it measures the relationship between the total funds mobilized by MFBS and the allocation of funds to deficits sectors of the economy. In analyzing the data, the researchers applied the Vector Autoregressive and Multivariate Econometrics tools. The result of the analysis of the correlation showed a clear indication of a weak relationship between the ratio of loans and advances to GDP, ratio of total fund mobilized to GDP, as against the negative nexus between the ratios of total investments to GDP. Furthermore, the result shows no evidence of long run equilibrium relationship between the variables under study. The causality test reveals the presence of a unidirectional causality running from RGDP to microfinance bank intermediation variables. Finally, the study recommends that there need to deepen the capacity building strides of NDIC by include both staff and directors of microfinance banks to help bridge the skills gap, the government should provide the infrastructure needed such as power and telecommunications to boost financial inclusion, because technology drives financial innovation, multilateral and bilateral funds be sourced to support the development of microfinance sector, the regulation of microfinance banks in Nigeria be strengthened.

Zaidi (2017) explored the impact of Akhuwat Foundation's microfinance on socio-economic conditions of the borrowers. This research has a sample size of 105 borrowers from 13 branches out of 29 branches of Akhuwat Foundation in Lahore. Cross-sectional study with two groups of borrowers, with a sample size of 60 for old borrowers and 45 for new borrowers is been used in this research. Based on primary data collected from old and new borrowers, the study analyzes the impact of microfinance on wellbeing of the borrowers' households in terms of their housing conditions, food security, children's education, poverty status,

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monthly income and expenditures of the borrowers before and after the loan with the help "with or without approach". Moreover, a non-parametric approach is used to test the difference between old and new borrowers in terms of their consumption expenditure, income, poverty status, housing improvement, access to education, and access to medical facilities. Our results show that Akhuwat's loans have significantly improved the conditions of the borrowers in terms of their monthly income, expenditures, access to education/ health, and household assets. The impact was much larger for old borrowers than new borrowers. In the end we concluded that Akhuwat's non-traditional approach of lending to the poor and its model of mutual brotherhood between lenders and borrowers presents great lessons to bring positive change in the society.

Apalia (2017) estimated the role of micro fiancé institutions in the Kenyan Economy- a case of Kisii, Nyanza. The research used a survey method to assist the researcher achieve the objective of the study. The population of the study comprised of all operational Micro Finance Institutions registered in Kisii, Kenya. Convenient sampling technique was used to select the sample. The study also used secondary data that was obtained from the financial statements of individual MFIs in Kisii. The results showed that profit before tax depended mainly on interest income, interest expense, shareholders' funds, loans and advances to customers. Other significant determinants on profitability of microfinance institutions include provision for bad and doubtful debts and deposits and balances due from other financial institutions. The measures that were considered very important in determination of financial performance by the participants included operational costs, debt equity portfolio at risk and labour productivity. Financing costs was reported to be a major proportion of cost in the organization. The factors that were rated as highly significant by the respondents in determining financial sustainability include: repayment, average loan size, saving deposits and operational costs. Loan size, average size of saving deposits and number of branches were rated moderately significant in determination of financial stability which resulted to economic growth.

Mishra and Singh (2017) examined the impact of microfinance on growth of the state economy over a period of ten years from 2006-07 to 2015-16. Secondary data has been used which has been analyzed by multiple regression model as a main statistical tool. Results of the study found negative and insignificant impact of total client outreach and credit growth of microfinance on the GSDP of the Bihar, whereas Total savings growth was found to have positive and significant impact on the GSDP of Bihar. So, to make microfinance impact visible on the state economy all suggestion previously recommended by NABARD should be taken as well as proper regulation should be brought to give other forms of MFIs like NGOs, Trust, Societies (except NBFCs) a greater role to play. It will also be interesting to see the role of small payment banks and small finance banks in the growth of microfinance in the state like Bihar.

Joseph, Innocent and Kenneth (2017) investigated the role of microfinance banks on employment generation in Karu Local Government Area (L.G.A) of Nasarawa State, Nigeria. The aim is to ascertain the extent to which microfinance banks have discharged their responsibilities of transforming the rural areas and making financial services accessible to a large segment of the potentially productive Nigerian population which otherwise would have little or no access to financial services. The study adopted a survey research design. The instrument for data collection was a structured questionnaire. One Hundred and Twenty customers of MFBs and two MFBs were randomly and purposively selected for the study. A total of 120 copies of the questionnaires were administered out of which 100 copies were properly completed and retrieved while 20 copies were not retrieved. Descriptive statistic was employed to analyze data for the study; the tools are simple percentage and frequency distribution. The study showed among others that creation of jobs was the greatest effect of financial intermediation of MFBs in the Grassroots. However, it also showed that lack of entrepreneurial skills was the major problem confronting the MFBs in the area financial intermediation for employment generation in the grassroots. The study therefore recommends among others that The Central Bank of Nigeria should evolve a credit policy that ensures that a certain percentage of the loan portfolio of the MFBs go for the transformation of the grassroots. Also, government should through the CBN, regulate, monitor the activities of MFBs, and redress the constraints affecting them in the area of financial intermediation for employment generation through favourable credit policy which can lead to entrepreneurial development in the rural areas.

Nnamdi and Akinpelumi (2016) evaluated the presence of a long-run relationship between classified sectoral economic activities in Nigeria and demand for microcredits (disbursed). However, the study finds significant prevalence of Schumpeterian independent hypothesis in most of the classified sectors of economic activity. This is because significant causal relationships only prevail between disbursed microcredits and sectoral activities in only one out of the five classified sectors. The study recommends that microcredit institutions should invest more in the development and marketing of more sector-specific micro deposit and credit products to achieve significant level of promotion and/or support between sectoral economic activities and microcredit allocations.

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Lawanson (2016) examined the influence of microfinance banks on the Nigerian economy and poverty condition over the period of 2005Q1 to 2014Q4. The study employed the stationarity/Unit root test, Johansen co-integration test and Error correction model. The study observes that micro-financing has a negative influence on Nigeria's economy. Which is evident as there exists a negative correlation between the Human Development Index and the Credit to Small Scale Enterprises which goes against all a priori expectations. The study recommends that there is immediate need for the Nigerian government to launch intensive awareness for the creation and the existence of poverty alleviation schemes via village meetings, village/town criers, radio and television jingles (especially, in local dialect).

METHODOLOGY

This study adopted the ex-post facto research design approach in analyzing data. Ex-post facto research is systematic empirical inquiry in to a research problem which the researcher does not have direct control of the independent variables because their manifestations have already occurred. This study employed secondary data sourced mainly from the Central Bank of Nigeria (CBN) Statistical Bulletin.

Model Specification

The study models are specified below:

$$PCI = f(MCAS, MCMQ, MCMS, MCREC, MCTC) \tag{1}$$

Transforming equation 1 in econometrics form, we have:

$$PCI = \beta_0 + \beta_1 MCAS + \beta_2 MCMQ + \beta_3 MCMS + \beta_4 MCREC + \beta_5 MCTC + \mu \tag{2}$$

Where

PCI   = Per Capita Income

MCAS = Microcredit in to Agricultural Sector

MCMQ = Microcredit in to Mining and Querying

MCMS = Microcredit in to Manufacturing Sector

MCREC = Microcredit in to Real Estate and Construction

MCTC = Microcredit in to Transport and Communication

| μ | = | Error term |

β_0 =   Regression Intercept

= Coefficient of the Independent variables to the Dependent   variable

Table 1: Variables and A-priori Expectations

Variable	Measurement	Notation	Expected Relationship
Per capita income	GDP/Population	PCI	Dependent variable
Microcredit to agricultural sector	Percentage of microcredit to agricultural sector to total micro credit	MCAS	+
Microcredit to mining and Querying	Percentage of microcredit to Microcredit to mining and Querying sector to total micro credit	MCMQ	+
Microcredit to Manufacturing sector	Percentage of microcredit to Microcredit to manufacturing sector to total micro credit	MCMS	+
Microcredit to real estate and construction	Percentage of microcredit to Microcredit to real estate and construction sector to total micro credit	MCREC	+
Microcredit to transport and construction sector	Percentage of microcredit to Microcredit to transport and construction sector to total micro credit	MCTC	+

Source: Authors Research Desk 2021

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Techniques of Data Analysis

The main tool of analysis is the Ordinary Least Squares (OLS) using the multiple regression method for a period of 28 years of annual data covering 1992– 2019. Statistical evaluation of the global utility of the analytical model, so as to determine the reliability of the results obtained was carried out using the coefficient of correlation (r) of the regression, the coefficient of determination (r^2), the student T-test and F-test.

Stationarity (Unit Root) Tests

The test for stationarity is also called test for integration. It is also called unit root test. Stationarity denotes the non-existence of unit root. We shall therefore subject all the variables to unit root test using the augmented Dickey Fuller (ADF) test specified in Gujarati (2004) as follows.

$$\Delta y_t = \beta_1 + \beta_2 + \delta y_{t-1} + \alpha i \sum_{i-1}^{m} \Delta y_{t-1} + Et \text{ (3)}$$

Where:

Δy_t = change time t

Δy_{t-1} = the lagged value of the dependent variables

$\sum_i$ = White noise error term

If in the above δ =0, then we conclude that there is a unit root. Otherwise there is no unit root, meaning that it is stationary. The choice of lag will be determined by Akaike information criteria.

Decision Rule

t-ADF (absolute value) > t-ADF (critical value): Reject H_o (otherwise accept H_1)

Note that each variable will have its own ADF test value. If the variables are stationary at level, then they are integrated of order zero i.e. 1(0). Note that the appropriate degree of freedom is used. If the variables are stationary at level, it means that even in the short run they move together. The unit root problem earlier mentioned can be explained using the model:

Y= Y_{t-1} + μ_I (4)

Where; Yt is the variable in question; μ_i is stochastic error term. Equation (a) is termed first order regression because we regress the value Y at time "t" on its value at time (t- 1). If the coefficient of Y_{t-i} is equal to 1, then we have a unit root problem (non-stationary situation). This means that if the regression.

Y= Y_{t-1} + μ_I (5)

Where Y and I are found to be equal to 1 then the variable Yt has a unit root (random work in time series econometrics). If a time series has a unit root, the first difference of such time series are usually stationary. Therefore, to salve the problem, take the first difference of the time series. The first difference operation is shown in the following model:

ΔY= (L-1) Y_{t-1} + μ_I (6)

δY_{t-1} + μ_I 7)

(Note: δ =1-1= 0; where L =1; ΔYt = Yt - Y_{t-i})   (8)

Integrated Of Order 1 or I (I)

Given that the original (random walk) series is differenced once and the differenced series becomes stationary, then the original series is said to be integrated of order I or I (1).

Integrated of Order 2 or I (2)

Given that the original series is differenced twice before it becomes stationary (the first difference of the first difference), then the original series is integrated of order 2 or 1(2). Therefore, given a time series has to be differenced Q times before becoming stationary it said to be integrated of order Q or I (q). Hence, non-stationary time series are those that are integrated of order 1 or greater.

The null hypothesis for the unit root is: Ho: a = 1;

The alternative hypothesis is Hi: a < 1.

We shall test the stationarity of our data using the ADF test.

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Co-integration Test (The Johansen' Test)

It has already been warned that the regression of a non-stationary time series on another non stationary time series may lead to a spurious regression. This approach is based on conducting unit root test on residual obtained from the estimated regression equation. If the residual is found to be stationary at level, we conclude that the variables are co-integrated and as such has long-run relationship exists among them.

$$PCI_t = w_O + \sum_{i=1}^{i} \vartheta_t MCAS_{t-i} + \sum_{i=1}^{j} \varpi_i MCMQ_{jt-i} + + \sum_{i=1}^{i} \vartheta_t MCMC_{t-i} + + \sum_{i=1}^{i} \vartheta_t MCREC_{t-i} + + \sum_{i=1}^{i} \vartheta_t MCTC_{t-i} + \mu_{1t}$$

(9)

Granger Causality Test

Granger Causality test was used in order to test the hypotheses regarding the presence and the direction of the causality between sectorial microfinance credit and economic development. For the purpose of this, the direction of causality determines the direction of the relationship among variables and Granger Causality test has three different directions in respect of this and they include the following:

One way causality

In a single equation model, Y is the dependent variable and X independent variable. The Granger, (1969) approach to this, is to see how much of the current Y can be explained by past values of Y and then to see whether adding lagged values of X can improve the explanation .In this case, Y is said to Granger-caused by X if x helps in the prediction of Y, or equivalently if the coefficient on the lagged X's are statistically significant. Here, there is a causality relationship from X towards Y. Independent variable is the cause and causes a one way effect on dependent variable, which shows the presence of one-way causality and the relationship is determined as Y on X.

Two way causality

In this case of two way causality, there can be reciprocal effect between variables. In this case, X Granger cause Y and Y Granger cause X. The Statement of "X Granger cause y and y Granger cause X does not imply that Y is the effect or the result of X. what it simply means is that Granger causality measures precedence and information content but does not by itself indicate causality in the more common use of the term.

Lack of Causality

According to Tari (2005) the equation suggests that if the addition of the information about the variables x to the model contributes to the estimate of the variables y, the variable x is the cause of the variable y. Here equation 5 shows a causality relationship from x to y and the equation 9 from y to x. Analyzing the model presented above, Granger causality test is carried out as Ho: β = O and Hi: β ± o when Ho hypotheses is accepted, X is not the cause of Y, but if Hi hypotheses is accepted, then X is the cause of Y. If both hypotheses are rejected, this means that there is a two-way causality between X and Y. The Granger testing works in a way that, if "F" table value, Ho hypotheses is accepted as "there is no causality from X to Y. But if "F" value is higher than the table value, H0 hypotheses is rejected and it is causality from X to Y. All these calculations are applied in the same way in order to test whether there is causality from Y to X.

The main objective of this study is to investigate the causality between the independent and the dependent variables. Granger (1996) proposed the concept of causality and exogeneity: a variable Yt is said to cause Xt, if the predicted value of Xt is ameliorated when information related to Yt is incorporated in the analysis. The test is based on the following equation below

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \alpha_1 Y_{t-1} + \sum_{i=1}^{n} \beta_1 X_{t-1} + \mu_{1t}$$ 10

And

$$X_t = \alpha_0 + \sum_{i=1}^{n} \alpha_1 X_{t-1} + \sum_{i=1}^{n} \beta_1 Y_{t-1} + \mu_2$$ 11

Where X_t and Y_t are the variables to be tested while $\mu1_t$ and $\mu2_t$ are white noise disturbance terms and n is maximum number of lags. The null hypothesis $\alpha_1 = \beta_1 = 0$ for all 1's is tested against the alternative hypothesis α_1, 0 and β 0, if the coefficient of α_1 are statistically significant, that of β_1 are not, then X causes Y, If the reversal is true than Y causes X. However, where both coefficient of α_1 and β_1 are significant then causality is bi-directional.

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Vector Error Correction (VEC) Technique

The presence of co-integrating relationship forms the basis of the use of vector error correction model. E-views econometric software used for data analysis, implement vector Auto-regression (VAR) based co-integration tests using the methodology developed by Johansen (1991, 1995). The non-standard critical values are taken from Osterward Lenun (1992).

ANALYSIS AND DISCUSSION OF FINDINGS

Table 2: presentation of Unit Root Test

Variable	ADF Statistic	MacKinnon 1%	MacKinnon 5%	MacKinnon 10%	Prob.	Decision	Summary
Unit Root at Level							
PCI	-1.886515	-3.699871	-2.976263	-2.627420	0.1264	Not stationary	Accept HO
MCTC	-2.321327	-3.788030	-3.012363	-2.646119	0.1748	Not stationary	Accept HO
MCREC	-1.441522	-3.699871	-2.976263	-2.627420	0.3182	Not stationary	Accept HO
MCMS	-1.270594	-3.699871	-2.976263	-2.627420	0.6281	Not stationary	Accept HO
MCMQ	-1.221557	-3.699871	-2.976263	-2.627420	0.2296	Not stationary	Accept HO
MCAS	-1.465212	-3.699871	-2.976263	-2.627420	0.5355	Not stationary	Accept HO
Unit Root at First Difference							
PCI	-8.400081	-3.711457	-2.981038	-2.629906	0.0000	Stationary	Reject HO
MCTC	-6.685986	-3.788030	-3.012363	-2.646119	0.0000	Stationary	Reject HO
MCREC	-5.419186	-3.724070	-2.986225	-2.632604	0.0002	Stationary	Reject HO
MCMS	-6.239204	-3.711457	-2.981038	-2.629906	0.0000	Stationary	Reject HO
MCMQ	-5.435916	-3.724070	-2.986225	-2.632604	0.0002	Stationary	Reject HO
MCAS	-4.619418	-3.711457	-2.981038	-2.629906	0.0011	Stationary	Reject HO

Source: Extract from E-view 9.0 (2021)

The time series properties of the variables used in the analysis was investigated using Augmented Dickey-Fuller test. The test was run with specification of trend and intercept in the model. The ADF statistics for the test are presented in the table above. It can be seen from table 2 above that the unit root test results, using the ADF unit root test suggest that all series are stationary at order I (1). Therefore, the Engle and Granger (1987) can be employed. The result enables us to present the regression results.

Table 3: Presentation of Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MCTC	0.265877	0.253594	1.048434	0.3058
MCREC	-0.991916	1.448564	-0.684758	0.5006
MCMS	-2.388015	0.847697	-2.817062	0.0100
MCMQ	17.91706	0.251927	2.865846	0.0090
MCAS	0.616547	0.352186	1.750632	0.0439
C	-12.52738	0.303620	-0.683205	0.5016
R-squared	0.777937	Mean dependent var		6.934643
Adjusted R-squared	0.536559	S.D. dependent var		16.69609
S.E. of regression	14.58822	Akaike info criterion		8.385716
Sum squared resid	4681.959	Schwarz criterion		8.671188
Log likelihood	-111.4000	Hannan-Quinn criter.		8.472988
F-statistic	2.673239	Durbin-Watson stat		1.804195
Prob(F-statistic)	0.049242			

Source: Extract from E-view 9.0 (2021)

Interpretation of Results

From the result, the constant term is negative; it does not meet our a priori expectation. That is if other variable that contribute to the growth of Nigeria per capita income is zero, there are other variables that can contribute in a positive or negative way to

growth of Nigeria per capita income. However, the estimated regression coefficient indicates that microcredit to transport and communication have positive and no significant effect on Nigeria per capita income, microcredit to real estate and construction have negative but no significant effect on Nigeria per capita income, microcredit to manufacturing sector have negative and significant effect on Nigeria per capita income, microcredit to mining and querying have positive and significant effect on Nigeria per capita income while microcredit to agricultural sector have positive and significant effect on Nigeria per capita income.

Coefficient of determination R^2

Goodness of Fit Test (R^2): The (R^2) shows the amount of the variation in the dependent variables (real gross domestic products) that are explainable by the explanatory variable. The adjusted R^2 which measures the overall goodness of fit of the entire regression shows the value of 0.536559. This indicates that the independent variables accounts for about 53.6 percent variation in Nigeria per capita income can be explained by variation on microcredits to the various sectors of the Nigerian economy.

Test of Autocorrelation

The underlying assumption of autocorrelation is that the successive values of the random Mi are temporally independent. The conventional Durbin Watson statistics was employed. Since DW which is 1.804195 close to 2.0 rather than one, we conclude that there is presence of serial autocorrelation among the variables.

F- Test

We also conducted the f-test to check for model adequacy. Hypothesis formulation
H0: the model is well specify
H1: there is misspecification of model

Decision Rule: If F-tabulated > F-calculated, we accept H0,
The F-statistic is2.673239 and probability of 0.049242.Since the probability value is less than 0.05 we accept H0 and reject HA. Thus we concluded that the model is good and well specified.

Table 4: Presentation of Johansen Cointegration Test

Hypothesized		Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**	
None *	0.955341	196.8418	95.75366	0.0000	
At most 1 *	0.898349	116.0159	69.81889	0.0000	
At most 2 *	0.638516	56.57452	47.85613	0.0061	
At most 3 *	0.505054	30.11856	29.79707	0.0459	
At most 4	0.321125	11.83261	15.49471	0.1651	
At most 5	0.065535	1.762322	3.841466	0.1843	
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)					
Hypothesized		Max-Eigen	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**	
None *	0.955341	80.82595	40.07757	0.0000	
At most 1 *	0.898349	59.44137	33.87687	0.0000	
At most 2	0.638516	26.45596	27.58434	0.0692	
At most 3	0.505054	18.28595	21.13162	0.1195	
At most 4	0.321125	10.07028	14.26460	0.2074	
At most 5	0.065535	1.762322	3.841466	0.1843	
Normalized cointegrating coefficients (standard error in Parentheses)					
PCI	MCTC	MCREC	MCMS	MCMQ	MCAS
1.000000	-19.31781	-132.6942	23.68702	294.1085	-21.16925
	(1.44446)	(12.1747)	(3.46122)	(51.0777)	(1.46784)

Source: Extract from E-view 9.0 (2021)

From table 4, the results of the Johansen co-integration test show that we adopt the alternate hypotheses of co-integrating equation at the 5% level of significance as the results found at least 3 cointegrating equation from trace statistic and one cointegrating equation from maximum Eigen value. This implies that, there are linear combinations of the variables that are

stationary in the long run and also confirms the existence of a long-run relationship between microcredit to various sectors of the economy and Nigeria per capita income. However, the normalized cointegrating model found that microcredit to transport and communication, real estate and construction and microcredit to agricultural sector have negative long run relationship with Nigeria per capita income while microcredit to manufacturing sector and mining and querying have positive long run effect on per capita income.

Table 5: Presentation of Error Correction Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.967267	2.967029	0.663043	0.5181
D(PCI(-1))	0.565658	0.433238	554	0.2127
D(PCI(-2))	0.696671	0.354449	1.965504	0.0695
D(PCI(-3))	0.174653	0.207971	0.839794	0.4151
D(MCTC(-1))	-0.277094	0.194065	-1.427839	0.1753
D(MCREC(-1))	0.200831	2.069357	0.097050	0.9241
D(MCMS(-1))	2.670923	3.326424	0.802941	0.4354
D(MCMQ(-1))	2.885359	9.170417	0.314638	0.7577
D(MCAS(-1))	0.137285	0.693034	0.198093	0.8458
ECM(-1)	-1.360574	0.512447	-2.655054	0.0188
R-squared	0.629357	Mean dependent var		-0.722083
Adjusted R-squared	0.391087	S.D. dependent var		15.64208
S.E. of regression	12.20596	Akaike info criterion		8.136063
Sum squared resid	2085.798	Schwarz criterion		8.626919
Log likelihood	-87.63276	Hannan-Quinn criter.		8.266287
F-statistic	2.641359	Durbin-Watson stat		1.986868
Prob(F-statistic)	0.030284			

Source: Extract from E-view 9.0 (2021)

The Error Correction results (table 5) on the effect of microcredit on Nigeria per capita income shows that microcredit to transport and communication sector has a coefficient of -0.277094 at lag 1 while the probability coefficient proved that the variable is not significant meaning that one percentage change in microcredit to transport and communication leads to -0.28 percent change in per capita income in Nigeria. This indicates that there is a negative response of per capita income to microcredit to transport and communication sector.

The effect of microcredit to real estate and construction sector on Nigeria per capita income shows that microcredit to real estate and construction sector have a coefficient of 0.200831 at lag 1while the probability coefficient proved that the variable is not significant, meaning that one percentage change in microcredit to real estate and construction sector leads to 0.20 percent change in per capita income in Nigeria. This indicates that there is a positive response of Nigeria capita income to microcredit to real estate and construction sector.

The effect of microcredit to manufacturing sector on Nigeria per capita income shows that microcredit to manufacturing sector has a coefficient of 2.670923 at lag 1 while the probability coefficient proved that the variable is not significant, meaning that one percentage change in microcredit to manufacturing sector leads to 2.6 percent change in per capita income in Nigeria. This indicates that there is a positive response of per capita income to microcredit to manufacturing sector.

The effect of microcredit to mining and querying sector on Nigeria per capita income shows that microcredit to mining and querying sector has a coefficient of 2.885359 at lag 1 while the probability coefficient proved that the variable is not significant, meaning that one percentage change in microcredit to mining and querying sector leads to 2.88 percent change in per capita income in Nigeria. This indicates that there is a positive response of per capita income to microcredit to mining and querying sector.

The effect of microcredit to agricultural sector on Nigeria per capita income shows that microcredit to agricultural sector has a coefficient of 0.137285 at lag 1, while the probability coefficient proved that the variable is not significant, meaning that one

percentage change in microcredit to agricultural sector leads to 0.1 percent change in per capita income in Nigeria. This indicates that there is a positive response of per capita income to microcredit to agricultural sector.

The results further show that the adjusted r-squared is 0.391087 indicating that 39.1 percent changes in Nigeria per capita income are attributable to microcredits to the various sectors of Nigerian economy. Overall, the results show that F-statistic is 2.641359 with a probability of 0.030284, indicating that the combined impact of the explanatory variables on per capita income represented is statistically significant. The Durbin-Watson statistic shows 1.986868 indicating the absence of serial or autocorrelation among the variables. Furthermore, the Error Correction Co-efficient has a negative value of -1.360574 and is significant at 5% level of significance with a probability of 0.0188. The co-efficient indicates that the model has a 136 percent speed of adjustment from equilibrium position on the long run.

Table 6: Presentation of Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
MCTC does not Granger Cause PCI	26	0.97117	0.3950
PCI does not Granger Cause MCTC		0.27124	0.7651
MCREC does not Granger Cause PCI	26	0.21168	0.8109
PCI does not Granger Cause MCREC		1.26861	0.3019
MCMS does not Granger Cause PCI	26	3.33700	0.0452
PCI does not Granger Cause MCMS		1.27738	0.2996
MCMQ does not Granger Cause PCI	26	1.61472	0.2227
PCI does not Granger Cause MCMQ		0.35226	0.7072
MCAS does not Granger Cause PCI	26	3.95712	0.0348
PCI does not Granger Cause MCAS		0.06153	0.9405

Source: Extract from E-view 9.0 (2021)

The causality test is summarized as follows:

H_{01}: MCAS ≠ PCI

   PCI ≠ MCAS

From the results of the granger causality test, the probability value of 0.0348 is less than the critical value of 0.05 therefore; the research concludes that there is a causal relationship running from MCAS to PCI. However the probability value of 0.9405 is greater than the critical value of 0.05, therefore, the research concludes that there is no causal relationship running from PCI to MCAS.

H_{02}: MCMS ≠ PCI

   PCI ≠ MCMS

From the results of the granger causality test, the probability value of 0.0452 is less than the critical value of 0.05 therefore; the research concludes that there is a causal relationship running from MCMS to PCI. However the probability value of 0.2996 is greater than the critical value of 0.05, therefore, the research concludes that there is no causal relationship running from PCI to MCMS.

H_{03}: MCMQ ≠ PCI

   PCI ≠ MCMQ

From the results of the granger causality test, the probability value of 0.2227 is greater than the critical value of 0.05 therefore; the research concludes that there is no causal relationship running from MCMQ to PCI. However the probability value of 0.7072 is greater than the critical value of 0.05, therefore, the research concludes that there is no causal relationship running from PCI to MCMQ.

H_{04}: MCTC ≠ PCI

   PCI ≠ MCTC

From the results of the granger causality test, the probability value of 0.3950 is greater than the critical value of 0.05 therefore; the research concludes that there is no causal relationship running from MCTC to PCI. However the probability value of 0.7651 is greater than the critical value of 0.05, therefore, the research concludes that there is no causal relationship running from PCI to MCTC.

H_{05}: MCREC ≠ PCI

   PCI ≠ MCREC

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From the results of the granger causality test, the probability value of 0.8109 is greater than the critical value of 0.05 therefore; the research concludes that there is no causal relationship running from MCREC to PCI. However the probability value of 0.3019 is greater than the critical value of 0.05, therefore, the research concludes that there is no causal relationship running from PCI to MCREC.

Discussion of Findings

This study examined the effect of sectorial microfinance credit on Nigeria economic development. Microcredit to agricultural sector has positive and significant effect on the Nigeria economic development proxy by Nigeria capital income. The beta coefficient of the variables proved that a unit increase on the variables can positively affect per capita income by 0.6 percent. The findings confirm our a-priori expectations and confirm the various reforms in the microfinance institutions. The findings are in line with financial intermediation theory as advocated by Mackinnon and Shaw 1973. It is also in line with credit rationing theory and further justifies by Nigeria government to deepen the operational efficiency of the microfinance institutions.

Microcredit to mining and querying sector has positive and significant effect on Nigeria growth of Nigeria capital income. The beta coefficient of the variables proved that a unit increase on the variables can positively affect per capita income by 17.9 percent. The findings confirm our a-priori expectations and confirm the various reforms in the microfinance institutions. The finding confirm the financial sector reforms such as the deregulation of the financial sector in the last quarter of 1986, the reform in the microfinance institutions such as the increase in the capital base and in line with financial intermediation theory as advocated by Mackinnon and Shaw 1973. It is also in line with credit rationing theory and further justifies by Nigeria government to deepen the operational efficiency of the microfinance institutions. Empirically the findings are

Microcredit to manufacturing sector has negative and significant effect on growth of Nigeria capital income. The beta coefficient of the variables proved that a unit increase on the variables can negatively affect per capita income by 2.4 percent. The findings contradict our a-priori expectations and contradict the various reforms in the microfinance institutions. The finding contradict the financial sector reforms such as the deregulation of the financial sector in the last quarter of 1986, the reform in the microfinance institutions such as the increase in the capital base and does not confirm financial intermediation theory as advocated by Mackinnon and Shaw 1973. It is also contradict credit rationing theory and further contradict by Nigeria government to deepen the operational efficiency of the microfinance institutions. The negative effect of microcredit to manufacturing sector on Nigeria economic development could be traced to the neglect of the sector by the microfinance institutions. Evidence from the time series data indicated that percentage microcredit to manufacturing sector to total credit was on a decrease over the periods covered in this; this could also be traced to the long neglect of the manufacturing sector in Nigeria.

Microcredit to real estate and construction sector hasnegative but no significant effect on Nigeria per capita income. The beta coefficient of the variables proved that a unit increase on the variables can negatively affect per capita income by 0.99 percent on per capita income. The findings contradict our a-priori expectations and contradict the various reforms in the microfinance institutions. The negative finding contradict the financial sector reforms such as the deregulation of the financial sector in the last quarter of 1986 and the reform in the microfinance institutions such as the increase in the capital base and does not confirm financial intermediation theory as advocated by Mackinnon and Shaw 1973. The negative effect of microcredit to real estate and construction on Nigeria per capita income could also be traced to the neglect of the sector by the microfinance institutions. Evidence from the time series data also indicated that percentage microcredit to manufacturing sector to total credit was on a decrease over the periods covered in this; this could also be traced to the long neglect of the manufacturing sector in Nigeria.

Microcredit to transport and communication have positive and no significant effect on Nigeria capital income. The beta coefficient of the variables proved that a unit increase on the variables can positively affect per capita income by 0.26 percent. The findings confirm our a-priori expectations and confirm the various reforms in the microfinance institutions. The finding confirms the objective of the study and financial intermediation theory as advocated by Mackinnon and Shaw 1973. It also proved that finance causes economic growth. It confirms theories such as credit rationing theory and further justifies by Nigeria government to deepen the operational efficiency of the microfinance institutions. Empirically the findings is in line with the findings of Akani and Uzah (2018) that microfinance lending to the various sectors of the economy have positive but insignificant effect on Nigerian macroeconomic stability except lending to agricultural sector and mining and quarrying, the findings of Onwubu and Okorie (2018) that microfinance bank loans and advances showed significant impact on industrial

output in Nigeria over the study period but negate the findings of Khalaf and Saqfalhait (2019) that MFIs have no effect in improving economic growth in Arab countries.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Findings from the estimated regression model proved that 53.6 percent variation on Nigeria per capita income can be traced to variation on microcredit allocation to the various sectors of the economy. From the findings, the researcher concludes that, microcredit allocation to manufacturing sector has negative and significant effect on Nigeria per capital income. Furthermore, the study concludes that microcredit allocation to real estate and construction has negative and statistically no significant effect on Nigeria per capital income. That microcredit allocation to transport and communication sector have positive and statistically no significant effect on Nigeria per capital income. Microcredit allocation to mining and querying sector have positive and significant effect on Nigeria per capita income. That microcredit allocation to agricultural sector has positive and significant effect on Nigeria per capital income.

Recommendations

From the findings, the following are recommended for the study:

1. The government should through its regulatory agencies fully adopt and support the implementation of microfinance banks policy as a medium of solving the problems of difficulties in accessing capital most especially the small and medium scale enterprises in Nigeria.
2. Implementable policies should be directed toward increase microfinance credit to the various sectors of the economy most especially the agricultural sector and rural farmers as this can bridge the problem self-financing.
3. Government should further encourage the activities of Micro Finance Banks (MFBs) by creating enabling environment so that they can further support the growth of business enterprises in Nigeria.
4. There should be policies to revamp the manufacturing sector and make attractive for the microfinance extend credit to the sector.

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