# Microfinance An Effective Tool for Financial Inclusion in Nigeria

# Josephine Chinelo Ene

Department of Accounting, Base University Abuja josephine.ene@bazeuniversity.edu.ng

# Abstract

The importance of financial inclusion as an indispensable tool for poverty alleviation has elucidated a focus on the determinants of financial inclusion. This study examined the effect of selected microfinance policies on financial inclusion in Nigeria. The independent variables were Credits to small scale enterprises, number of microfinance institutions, rural banking and agricultural loans while the dependent variable, financial inclusion was estimated as Depositors with Commercial banks per 1000 adults. The study employed the fully modified ordinary least square regression analysis to analyse time series data covering from 2007 to 2022. Credits to small scale enterprises, number of microfinance institutions, rural banking and agricultural loans had positive effect on financial inclusion in Nigeria. However, the effect of rural banking was insignificant. The study therefore concluded that microfinance policies had significant effect on financial inclusion in Nigeria. The study recommended that Government should consider differential tax rate as incentives to persuade banks to offer more credits to small scale enterprises.

**Keywords**: Financial Inclusion, Microfinance Institutions, Rural Banking, Agricultural loan, Fully Modified Ordinary Least Square

# **1. Introduction**

Since its emergence in the 1970s, microfinance has been acclaimed as a pro-development initiative and a crucial strategy to address poverty and under-development in developing and transition countries. Microfinance is defined as the provision of financial services: loans, savings, insurance, or transfer services to low-income households (Mecha, 2017). The microfinance revolution is targeted at delivering financial services at a low cost on a large scale through competing, financially self-sufficient institutions and other microfinance programs. It is targeted at offering a broad range of formal financial services to economically struggling clients at reasonable costs. This focus is expected to have profound implications for financial inclusion.

Financial inclusion, according to Damayanthi (2022), exists when individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way. It is also defined as the availability of finance and financial services for all in fair, transparent and equitable manner at an affordable cost. Financial inclusion ensures effective, reliable and sustainable access and usage of appropriate and affordable financial services. Furthermore, financial inclusion denotes efforts to make financial products and services accessible and affordable to all individuals and businesses, regardless of their personal net worth or company size. That is, it strives to eliminate barriers that exclude people from participating in the financial sector and using these services to improve their lives. Summarily, financial inclusion refers to the involvement of the citizens in financial mainstream which is expected to drive investment, create jobs and stimulate economic growth.

Bearing in mind the strategic role of financial inclusion and the rationale that has situated microfinance programs and institutions as increasingly important strategies to promote financial inclusion, the Nigerian government through the Central Bank have pursued financial inclusion as an integral part for promoting sustainable and inclusive growth by formulating microfinance policies that are expected to encourage country wide access to financial services at affordable cost particularly to the less privileged and vulnerable group. However, knowledge about the achievements of such initiatives remains only partial and contested. Given this contention, the assessment of microfinance programs in promoting financial inclusion remains an important field for researchers, policymakers and development practitioners.

More so, besides the limited number of relevant researches, there is apparent evidence of inconsistency in the reported effect of microfinance policies on financial inclusion. These studies differ from one context to another capturing variations in population density, attitudes to debt, group cohesion, enterprise development, financial literacy, and financial service providers. To capture the Nigerian unique context necessitates a study of the effect of microfinance on financial inclusion in Nigeria. Therefore, this study examined the effect of selected microfinance policies on financial inclusion in Nigeria.

The remainder of the paper is organized as follows. Section 2 presents relevant conceptual, empirical and theoretical reviews. Section 3 discusses the study methodology. In section 4, data collected is analysed and results discussed while in section 5, the conclusion and recommendation of the study are offered.

# 2. Conceptual Review

Macchiavello (2018) defined microfinance as a provision of a wide range of financial services, particularly credit but also remittances and savings, to low-income or financially excluded people. Sohn and Ume (2019) explained that microfinance provides people in poverty with the option to get small-scale monetary services such as credit, savings, and insurance, which they lack access to, from mainstream banks and other financial systems. This is typically achieved by the provision of easily accessible financial services at a lower cost. The objectives of microfinance are often pursued through various microfinance models, including microcredit, microsavings, rural banking and agricultural credits programs. The selected measures of microfinance policies for this study are Number of microfinance institutions, Credits to small scale enterprises, Agricultural loan (financing) and Rural banking.

# **2.1 Financial Inclusion**

Financial inclusion is the provision of equally available and affordable access to financial services for everyone, regardless of their level of income (Oumarou & Celestin, 2021). Eze and Markjackson (2020) also defined financial inclusion as broad access to affordable financial products and services. To Bruhn and Love (2014), financial inclusion refers to the fact that a person owns an account at a formal financial institution which allows the account holder to save and borrow money formally, to contract insurance or to use payment services. Financial inclusion ensures that customers have access to a range of formal financial services, from simple credit and savings services to the more complex services such as insurance and pensions. It also ensures that customers have access to more than one financial services provider promoting a variety of competitive services. Therefore, beyond provision of credits, financial inclusion is fundamentally about connecting the people with the banking system and ensuring availability of bouquet of financial services including access to payment system. In other words, financial inclusion has the primary goal of facilitating access to financial services to people who usually are excluded from the formal banking sector. The dimensions of this goal are summarized in access, affordability, and availability of essential banking services. Consequently, fundamental measures of financial inclusion as enumerated by Ndione et al. (2024) and Manasseh et al. (2024) include access to financial services, bank account ownership,

usage of financial services, credit access, digital financial services usage, savings and investment, insurance coverage, access to insurance products, geographical distribution, gender disparities, financial literacy and regulatory environment.

### **2.2 Empirical Review**

Ene and Inemesit (2015) examined the effect of microfinance on financial inclusion in Nigeria between 1990 and 2014 deploying Johansen co-integration test and Ordinary Least Square (OLS) method for the analysis. Summarily, the study revealed the existence of significant effect of all proxies of microfinance. Access to microfinance and microfinance minimum deposit amount had a positive and significant relationship while microfinance interest rate had an insignificant negative linkage with the rural dwellers loans and advances.

Soumare et al. (2016) examined the determinants of financial inclusion in Central and West Africa using data from the Global Financial Inclusion database of the World Bank. With a slight variation across both regions, the authors exposed these determinants to be individual characteristics such as gender, education, age, income, residence area, employment status, marital status, household size and degree of trust in financial institutions. The work measured financial inclusion as access to formal finance, savings, borrowing or frequency of use. Qamar et al. (2016) also investigated the relationship between microfinance and poverty alleviation. The results showed that Microfinance reduced poverty rate. More importantly, the work exposed that the reduction is achieved by the provision of access to various financial services, a common measure of financial inclusion. Hence implicitly, the study revealed that microfinance improved financial inclusion. The study utilized Chi square test followed by binary logistic regression.

Ajide (2017) evaluated the determinants of financial inclusion in a panel of eighteen SubSaharan Africa countries using a dynamic system of Generalized Method of Moments (SYS-GMM). The panel data model estimates consistently revealed the importance of MFI institutions and bank concentration as key drivers of inclusion. Similarly, Uddin, et al. (2017) attempted to identify bank specific factors and macroeconomic factors that determine financial inclusion in Bangladesh during the period 2005–2014. The random effects and dynamic panel models, generalized methods of moments (GMM) methodologies and Quantile regression approach consistently revealed the import of the size of a bank, its efficiency, and the interest rate as significant and positive determinants of financial inclusion. Furthermore, literacy rate is positively and age dependency ratio is negatively related to financial inclusion.

Adeola and Olaniyi (2017) examined the relationship between microfinance and financial inclusion in Nigeria from 1981 to 2014. The results from the estimated fully modified OLS (FMOLS) and the Dynamic OLS (DOLS) models did not reveal the existence of a significant effect in the short run. However, the cointegration results indicated a long-run linkage between total commercial banks' loans and advances, number of microfinance banks, lending interest rates and financial inclusion. Delving into the controversy pertaining the varying role of microfinance in economic development, Elhadidi (2018) investigated the influence of microfinance in Egypt. The study applied a cross-sectional survey on a sample size of 780 established and new clients from urban and rural districts. The multinomial logistics results revealed that microfinance had a positive impact on the household income of women borrowers who spent three years in the scheme as compared to new borrowers.

Focusing on the provision of credits for the agricultural sector, Kalu, et al. (2018) examined the effect of the adequacy and timeliness of access to finance on financial inclusion in Nigeria. The authors administered and analysed 600 questionnaires from small scale farmers in both rural and urban locations in Nigeria. The study exposed the adverse effect of inadequate and untimely provision of credits provided to small scale farmers on agricultural activities. More particularly, the study revealed the positive effect of adequate and timely efforts to meet the credit needs of farmers on financial inclusion. The proxies were estimated as the difference between the amount of credit needed and the amount of credit granted by the lending agencies (Adequacy gap index) and the difference between when credit was needed by the small scale farmers and when credit was received (Timeliness gap index).

Acknowledging the pivotal benefit of increasing the provision of micro-credit to the economically-active poor people hitherto excluded from formal banking sector, Ejefobihi et al. (2019) examined the effect of microfinance on financial inclusion in Nigeria using times series from 1981 to 2017. Inconsistent with the results by Adeola and Olaniyi (2017), the analysis carried out using co-integration test and Error Correction Model (ECM) indicated that microfinance had positive significant effect on financial inclusion in Nigeria in the short– run and long–run. The proxy for microfinance was loans and advances of microfinance banks and Commercial bank deposit for financial inclusion. The study also found an insignificant effect by the lending interest rate. Sohn and Ume (2019) also examined the effect of microfinance on poverty alleviation in Pakistan using district-level panel data. Fixed effect panel regression was conducted to show a statistically significant positive impact of microfinance on household income, ownership of household assets, education, and expenditure. These results suggested that the development of microfinance is an efficient tool for both welfare improvement and poverty alleviation in Pakistan.

Eze and Markjackson (2020) examined the determinants of financial inclusion in Nigeria with data spanning 2000 to 2018 using ordinary least square technique and the error correction technique. While domestic credit to private sector, ratio of rural deposits to loans and lending interest rate had a positive and significant effect, commercial bank branches and deposit interest rate were revealed to exert a negative but insignificant impact on financial inclusion. In a related study, Oumarou and Celestin (2021) panel regressions indicated the likelihood of a positive influence of Agricultural financing via the credit channel on financial inclusion. Mobile phone penetration and literacy rate also had a positive effect on financial inclusion, while the weight of the rural population and interbank credit is negatively associated. The study had examined for the determinants of financial inclusion and proposes an instrument of measuring financial inclusion in West African Economic and Monetary Union (WAEMU) countries.

Oshora et al. (2021) analysed financial inclusion determinants among small and medium enterprises in Ethiopia. The mixed research approach and multiple linear regression model showed that supply-side factors, demand-side factors, market opportunity, and collateral requirements have a positive effect on the firm's access to finance. On the other hand, institutional framework factors, and the costs of borrowing negatively affect the firm's access to finance. Examining the evolving concept of financial inclusion and in a bid to identify country-specific or region-specific determinants, Damayanthi (2022) examined the factors that affect financial inclusion across economies. The content analysis deployed by the study proved the consistency of financial literacy, income level, and the use of digital technologies for financial transactions as the most significant determinants that influence financial inclusion in individual country level. The study however emphasised that determinants of financial inclusion varied across countries.

Ehiedu et al. (2022) also examined the Nigerian economy over a 16-years study period (2006 to 2021), to identify the determinants of financial inclusion. Among other factors, the ordinary least square approach analysed the effect of domestic credit to the private sector, number of commercial banks network, and age dependency ratio. The number of commercial banks network and the age dependence ratio had insignificant negative effect whereas the domestic credit to the private sector had a positive and significant influence. Stephen (2023) assessed the factors influencing financial inclusion in Tanzania covering 2012 to 2022. Consistent with the findings of Ehiedu et al., the regression analysis on the longitudinal data revealed a positive and insignificant effect of per capita income and inflation rate while networking of banks

financial institutions' branches and age dependence ratio had negative and insignificant impact on financial inclusion. Employing GMM and the OLS methods with data that spanned from 2004 to 2020, Nsiah and Tweneboah (2023) investigated the determinants of financial inclusion in twenty African countries. The study revealed that GNI per capita, domestic credit to private sector and institution quality are significant determinants of financial inclusion in Africa. It was further revealed that institutional quality reduced the barriers to financial inclusion in the continent.

Manasseh et al. (2024) examined the relationship between microfinance, financial inclusion, and economic welfare in a sample of 23 African countries for the period of 2004 to 2023 using annual time series data. The study proxied microfinance as the number of Branches of Microfinance banks, Microfinance Borrowers, Microfinance outstanding deposits. Microfinance outstanding loans. While financial inclusion was estimated as number of registered mobile money accounts per 1,000 adults; the number of mobile money agent outlets par 1,000 adults; and digital card ownership; governance and institutional quality with Rule of law, regulatory quality, and government effectiveness; and economic welfare with household consumption. The triangulation of Panel Least Squares, Fully Modified OLS, Dynamic OLS, and Panel Autoregressive distributed lag estimation techniques revealed the existence of longrun relationships between microfinance, financial inclusion, and economic welfare. Still on exploring the determinants of financial inclusion within the West African Economic and Monetary Union (WAEMU), Ndione et al. (2024) examined the moderating role of the male/female entrepreneurial rate. The data for the eight member countries from 2010 to 2020 were analysed using panel regression to reveal that a positive impact of e-money services. Conversely, supply of service points of banks and MFIs had no significant influence.

### 2.3 The Institutional Theory of Financial Inclusion

Institutional theory originated from the writings of early sociologists like Max Weber and Emile Durkheim in the late 19th and early 20th Centuries. The focus of institutional theory, a sociological and organizational theory, is on how institutions influence society norms, organizational practices, and individual behavior. The Institutional theory of financial inclusion, as explained by Saifurrahman and Kassim (2023), is a framework that emphasizes the purposeful role of formal and informal institutions, including government policies, regulations, financial intermediaries, and social norms, in shaping the level of financial inclusion in a given society. This theory posits that the formal and informal institutions that govern financial markets and behaviour play a crucial role in determining who has access to financial services and under what conditions. Summarily, the theory recognises that achieving greater financial inclusion requires addressing both formal and informal institutional factors via effective strategies that involve a combination of regulatory reforms, policy interventions, technology adoption, financial education, and efforts to build trust within financial systems. The fundamental components and principles of the theory include institutional context, formal financial institutions, regulatory environment, government policies and technological advancements. Therefore, the theory suggests the existence of a significant relationship between microfinance policies and financial inclusion.

According to Ozili (2020), the institutional theory of financial inclusion assumes the existence of asymmetric information about access to formal financial services and the conditions required to access formal financial services. Furthermore, the theory is based on the assumption of the existence of constraints and risks inherent in the formal financial sector (Claessens & Tzioumis, 2006; Ozili, 2023).

# 3. Methodology

This study examined the effect of microfinance policies on financial inclusion in Nigeria utilising the ex-post facto research design. Times series data covering the period 2013 to 2022

was analysed using Fully Modified ordinary least square regression. The secondary data were sourced from the Central bank statistical bulletin 2022 and World bank open database.

**Independent Variable**: The independent variable is microfinance policies estimated as Credits to small scale enterprises, number of microfinance institutions, Agricultural loans and rural banking (sum of rural loans and deposits).

**Dependent Variable**: The financial inclusion is measured as financial usage estimated as Depositors with Commercial banks per 1000 adults.

# **3.1 Model Specification**

The model adopted for this study is derived from the previous study carried out by Adeola and Olaniyi (2017) with some modifications to capture the objectives of this study. The functional form of the model is therefore specified as follows:

 $\begin{array}{lll} \Delta FI_t = \ \partial_0 + \beta_1 SSE_t + \ \beta_2 MFI_t + \ \beta_3 AGRIC_t + \ \beta_4 RB_t + \ \varepsilon_t \\ Where: \\ FI = Financial \ Inclusion \end{array}$ 

SSE = Credits to Small Scale Enterprises MFI = Number of MFI AGRIC = Agricultural loan RB = Rural banking  $\varepsilon = Error Term$ t = represents the time periods of the data

While  $\partial_0, \beta_1, \dots, \beta_5$  are parameters to be estimated.

Both pre and post-diagnostic tests were also employed to determine the aptness and robustness of model estimated.

# 4. Data Presentation and Analysis

| Table 1. Descriptive Statistics of Study variables |          |          |          |           |                 |             |              |
|--|----------|----------|----------|-----------|-----------------|-------------|--------------|
|  | Mean     | Maximum  | Minimum  | Std. Dev. | Jarque-<br>Bera | Probability | Observations |
| FI   | 819.3831 | 1797.090 | 296.1700 | 427.0279  | 1.864247        | 0.393717    | 16           |
| SSE  | 36.70750 | 123.9300 | 10.75000 | 35.67155  | 4.465598        | 0.107228    | 16           |
| MFI  | 875.3125 | 987.0000 | 695.0000 | 89.99461  | 1.131591        | 0.567908    | 16           |
| AGRIC  | 570.0138 | 1812.470 | 106.3500 | 491.3347  | 5.475013        | 0.064732    | 16           |
| RB   | 348.6688 | 989.0700 | 16.58000 | 328.8800  | 1.407526        | 0.494720    | 16           |

# Table 1. Descriptive Statistics of Study Variables

Source: E-views output on descriptive statistics

The descriptive statistics presented on Table 1 shows that the mean of all variables are positive. The standard deviations of all the returns are quite high reflecting high levels of dispersions from the average yearly values of the variables understudied. The p-values of the Jarque-Bera statistics test values are all higher than 0.05 and hence normality of distribution is assumed for all variables.

# 4.1 Correlation Analysis

| Table 2. Correlation Matrix |                     |        |        |        |   |  |  |
|-----------------------------|---------------------|--------|--------|--------|---|--|--|
|                             | FI SSE MFI AGRIC RB |        |        |        |   |  |  |
| FI                          | 1                   |        |        |        |   |  |  |
| SSE                         | 0.7460              | 1      |        |        |   |  |  |
| MFI                         | 0.6117              | 0.1872 | 1      |        |   |  |  |
| AGRIC                       | 0.9727              | 0.7427 | 0.4848 | 1      |   |  |  |
| RB                          | 0.5555              | 0.3561 | 0.4469 | 0.5198 | 1 |  |  |

Source: E-views output from correlation analysis

Table 2 indicates a positive correlation between all explanatory variables and the dependent variable.

| Variable | Coefficient Variance | Uncentered VIF | Centered VIF |
|----------|----------------------|----------------|--------------|
| SSE      | 0.530337             | 5.221613       | 2.555577     |
| MFI      | 0.057829             | 173.5981       | 1.344370     |
| AGRIC    | 0.003647             | 8.108284       | 3.163708     |
| RB       | 0.003604             | 3.248514       | 1.379281     |
|          |                      |                |              |

#### **Table 3. Variance Inflation Factor - Multicollinearity Test**

Source: Eviews Output

The results of Variance Inflation Factor test confirmed the absence of multicollinearity as all the values of the Centered VIF are less than 10.

| Table 4. Fully Modified Least Squares (FMOLS) with Financial Inclusion as Dependent |
|---|
| Variable  |

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |  |
|--------------------|-------------|-----------------------|-------------|----------|--|
| SSE                | 1.933107    | 0.728242              | 2.654484    | 0.0241   |  |
| MFI                | 0.855248    | 0.240477              | 3.556464    | 0.0052   |  |
| AGRIC              | 0.642763    | 0.060388              | 10.64387    | 0.0000   |  |
| RB                 | 0.005143    | 0.060031              | 0.085671    | 0.9334   |  |
| С                  | -360.4669   | 202.7807              | -1.777619   | 0.1058   |  |
| R-squared          | 0.980742    | Mean dependent var    |             | 854.2640 |  |
| Adjusted R-squared | 0.973038    | S.D. dependent var 41 |             | 417.7567 |  |
| S.E. of regression | 68.59569    | Sum squared resid     |             | 47053.68 |  |
| Long-run variance  | 3956.667    |                       |             |          |  |

Source: E-views output

The regression results displayed on Table 4 revealed a positive relationship between all measures of microfinance policies and financial inclusion in Nigeria. However, while the p-values of Credits to small scale enterprises, Agricultural loans and Number of microfinance institutions are significant, that of rural banking is insignificant. This indicates that increases in Credits to small scale enterprises, Agricultural loans and Number of microfinance institutions would have a favourable effect on financial inclusion in Nigeria.

#### Table 5. Cointegration Test - Hansen Parameter Instability

|              | Stochastic | Deterministic | Excluded    |        |
|--------------|------------|---------------|-------------|--------|
| Lc statistic | Trends (m) | Trends (k)    | Trends (p2) | Prob.* |
| 0.342301     | 4          | 0             | 0           | > 0.2  |
|              |            |               |             |        |

Source: Eviews Output

The cointegration test p-value is higher than 0.05 and so we do not reject the null hypothesis of Hansen Parameter Instability that Series are cointegrated. This is an indication of the existence of a long run effect of microfinance policies on financial inclusion in Nigeria. The results strengthen the premise of the effectiveness of microfinance policies in achieving financial inclusion in Nigeria.

To further validate the robustness and acceptability of result, the post diagnostic tests as presented on Table 6 indicate the absence of autocorrelation and confirm the normal distribution of residuals.

#### **Table 6. Results from Post Diagnostic Tests**

| Test                                | Q/JB Statistics | P-value  |  |  |  |
|-------------------------------------|-----------------|----------|--|--|--|
| Correlogram of residuals squared    | 0.1150          | 0.734    |  |  |  |
| Residual Normality Test - Histogram | 0.557131        | 0.756869 |  |  |  |
|                                     |                 |          |  |  |  |

Source: Extract from various E-views post diagnostic tests

The positive and significant effect of proxies of microfinance policies is consistent with the findings of Ajide (2017), Ejefobihi, et al. (2019), Eze and Markjackson (2020), Manasseh et al. (2024), Oumarou and Celestin (2021) and Kalu, et al. (2018). Specifically, Ajide (2017), Ejefobihi, et al. (2019) and Manasseh et al. (2024) had found same positive effect by

microfinance institutions. With regards to agricultural loan, the significant effect supported the findings by Oumarou and Celestin (2021) and Kalu, et al. (2018). The study results however contradict the findings of Adeola and Olaniyi (2017), Ehiedu, et al. (2022), Stephen (2023) and Ndione et al. (2024). These studies did not reveal a significant relationship between microfinance policies and financial inclusion.

## 5. Conclusion and Recommendations

Financial inclusion is the ease of access to, and the availability of, basic financial services to all members of the population. Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs in a responsible and sustainable way. Financial inclusion has been identified as an indispensable ingredient of economic growth and development because of the crucial role it plays within an economy as a vital tool for poverty alleviation. This pivotal role has engendered researches directed at identifying determinants of financial inclusion. This study examined the effect of microfinance policies on financial inclusion in Nigeria. Number of Microfinance institutions, credits to small scale enterprises, rural banking and agricultural loan were the selected proxies of microfinance policies while financial inclusion was measured as financial usage estimated as Depositors with Commercial banks per 1000 adults.

The results from FMOLS analysis indicated that Number of Microfinance institutions, credits to small scale enterprises, rural banking and agricultural loan had a positive and significant effect on financial inclusion in Nigeria. The study therefore concludes that microfinance policies have significant effect on financial inclusion in Nigeria. Based on the conclusion of the study, the following recommendations are proffered: Microfinance institutions should create and deploy uniquely tailored products targeted at the pro-poor. These products should be simple, accessible and attract low-interest rates. This will increase their customer base and promote expansion of microfinance institutions; Government should provide subsidies or incentives that persuade banks to offer flexible collateral requirements and reasonable repayment schedules to small scale enterprises. Such incentives could be in the form of differential tax rate; To effectuate the potential positive effect of agricultural loan, Government should monitor the timeliness and level of penetration of the credits advanced to farmers.

# References

- Adeola O. & Olaniyi E. (2017). The impact of microfinance on financial inclusion in Nigeria: *The Journal of Developing Areas*, 51(4), 194 -206.
- Ajide, K. B. (2017). Determinants of financial inclusion in Sub-Saharan Africa countries: Does institutional infrastructure matter? *CBN Journal of Applied Statistics*, 8(2), 69-89
- Aslam, M., Kumar, S., & Sorooshian, S. (2019). Impact of microfinance on poverty: Qualitative analysis for Grameen bank borrowers: *International Journal of Financial Research*, 11(1), 49, doi:10.5430/ijfr.v11n1p49.
- Bruhn, M., & Love, I. (2014). The real impact of improved access to finance, Evidence from Mexico: *J. Finance*, LXIX, 1347-1376.
- Chikwira, C., Vengesai, E., & Mandude, P. (2022). The impact of microfinance institutions on poverty alleviation. J. Risk Financial Manag., 15(393), 1-13 https://doi.org/10.3390/jrfm15090393.
- Claessens, S., & Tzioumis, K. (2006). Measuring firms' access to finance. World Bank, 1-25.
- Damayanthi, N. M. M. (2022). Determinants of financial inclusion, a review. *Journal of Management*, 13(2), 175, DOI: http://doi.org/10.4038/wjm.v13i2.7572.
- Ehiedu, V. C., Onuorah, A. C, & Chigbo, C.N. (2022). Determinants of financial inclusion (FI) in Nigerian economy. *Finance & Accounting Research Journal*, 4(4), 204-217, DOI: 10.51594/farj.v4i4.406.

- Ejefobihi, U. F., Imoagwu, C. P., & Ezeanyeji, C. I. (2019). Microfinance One of the key drivers of financial inclusion in Nigeria. *Journal of Policy and Development Studies*, 12 (1), 24 42.
- Elhadidi, H. H. (2018). The impact of microfinance on poverty reduction in Egypt, an empirical study: *Enterprise Development and Microfinance*, 29(2), 172–181, doi:10.3362/1755-1986.16-00033.
- Elsafi, M. H., Ahmed, E. M., & Ramanathan, S. (2019). The impact of microfinance programs on monetary poverty reduction: *World Journal of Entrepreneurship, Management and Sustainable Development*, 16(1), 30–43, doi:10.1108/wjemsd-05-2019-0036.
- Ene, E. E., & Inemesit, U. A. (2015). Impact of microfinance in promoting financial inclusion in Nigeria: *Journal of Business Theory and Practice*, 3(2), 139-158.
- Eze, G. P., & Markjackson, D. (2020). Determinants of financial inclusion in Nigeria: *IOSR Journal of Economics and Finance (IOSR-JEF)*, 11(1), 14-22.
- Macchiavello, E. (2018). Microfinance and financial inclusion. The challenge of regulating alternative forms of finance. Routledge SSRN Electronic Journal.
- Manasseh, C. O., Logan, C. S., & Ede, K. K. (2024). Microfinance, financial inclusion and economic welfare in Africa: A panel investigation. Asian Journal of Economics, Business and Accounting, 24(10), 291–312. https://doi.org/10.9734/ajeba/2024/v24i101530
- Mecha, N. S. (2017). Effect of microfinance on poverty reduction, a critical scrutiny of theoretical literature: *Global Journal of Commerce & Management Perspective*, 6(3), 16– 33, https://doi.org/10.24105/gjcmp.6.3.1702.
- Mhlanga, D., Steven, H. D., & Tankiso, M. (2020). Financial inclusion and poverty alleviation among smallholder farmers in Zimbabwe: *Eurasian Journal of Economics and Finance*, 8, 168–82.
- Ndione, M., Ashta, A., & Bako Liba, B. B. (2024). Banks, microfinance institutions and fintech: How the ratio of male and female entrepreneurs moderates their capacity for financial inclusion. *Cogent Economics & Finance*, 12(1). https://doi.org/10.1080/23322039.2024.2402031
- Nsiah, A. Y., & Tweneboah, G. (2023). Determinants of financial inclusion in Africa, Is institutional quality relevant?: *Cogent Social Sciences*, 9, 2184305.
- Oshora, B., Goshu, D., Eva, G., Maria, F., & Zoltan, Z. (2021). Determinants of financial inclusion in small and medium enterprises, evidence from Ethiopia: *Journal of Risk and Financial Management*, 14, 286, DOI: 10.3390/jrfm14070286.
- Oumarou, I., & Celestin, M. (2021). Determinants of financial inclusion in West African Economic and Monetary Union (WAEMU) countries: *Theoretical Economics Letters*, 11, 489-506, DOI: 10.4236/tel.2021.113033.
- Ozili, P. K. (2020). Institutional theory of financial inclusion. *Munich Personal RePEc: Archive MPRA*, Paper No. 104257.
- Ozili, P. K. (2023). Institutional theory of financial inclusion: *SSRN Electronic Journal*, DOI: 10.2139/ssrn.4317602.
- Qamar M. A. J., Masood S., & Nasir M. (2016). Impact of microfinance on the non-monetary aspects of poverty, Evidence from Pakistan: *Quality & Quantity*, 51(2), 891–902. DOI:10.1007/s11135-016-0317-2.
- Saifurrahman, A., & Kassim, S. (2023), Enhancing the MSME Islamic financial inclusion in Indonesia: An institutional theory perspective. Journal of Accounting and Finance, 23(2), 6-25
- Sohn, W., & Ume, L. (2019). The impact of microfinance on poverty alleviation, the case of Pakistan: *Journal of Asian Development*, 5(3), 16, doi:10.5296/jad.v5i3.15165.

- Soumare, I., Tchana, T. F., & Kengne, T. M. (2016). Analysis of the determinants of financial inclusion in Central and West Africa: *Transnational Corporations Review*, 8(4), 231–249, DOI:10.1080/19186444.2016.126576
- Stephen, K. (2023). Determinants of financial inclusion, evidence from Tanzania: *J Eco Res & Rev*, 3(2), 66-69.
- Uddin, A., Chowdhury, M. A. F., & Islam, M. N. (2017). Determinants of financial inclusion in Bangladesh, dynamic GMM & quantile regression approach: *The Journal of Developing Areas*, 51(2), 221–237, doi:10.1353/jda.2017.0041.