

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Segun, Olusegun Toyin

Article Microfinance mission drift in Nigeria

West African Journal of Monetary and Economic Integration

Provided in Cooperation with: West African Monetary Institute (WAMI), Accra

Suggested Citation: Segun, Olusegun Toyin (2017) : Microfinance mission drift in Nigeria, West African Journal of Monetary and Economic Integration, ISSN 0855-594X, West African Monetary Institute (WAMI), Accra, Vol. 17, Iss. 1, pp. 86-98

This Version is available at: https://hdl.handle.net/10419/264240

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Mitglied der Leibniz-Gemeinschaft

WWW.ECONSTOR.EU

MICROFINANCE MISSION DRIFT IN NIGERIA

Olusegun Toyin Segun¹

Abstract

Using panel data methodology, the study employs dataset of 752 microfinance banks (MFBs) during the period 2011 to 2014, to test for the existence of mission drift in Nigeria. The result suggests that sustainable microfinance banks tend to be more focused on poor clients, which implies increased depth of outreach of microfinance banks in Nigeria. This result allays fear that clients who are better off could crowd out poorer customers in a sustainable microfinance scheme. In view of this finding, the study concludes that sustainability and outreach are not necessarily incompatible.

Key words: Mission Drift, Microfinance, and Panel data. *JEL Classification*: G21, E43, C23, O12

¹ Olusegun Toyin Segun is a staff of the Research Department, Central Bank of Nigeria, FCT Abuja. E-mail address: <u>tsolusegun@cbn.gov.ng</u> / <u>segto@yahoo.com</u>

INTRODUCTION

Microfinance institutions (MFIs) aim is to reduce poverty by lending to the poor, who are excluded from the formal banking services, through the provision of uncollateralized small loans. Thus, the objective of lending to the poor brought MFIs into global limelight. However, overtime, microfinance institutions have been criticised for a shift in focus, from the initial objective of reaching out to the poor to profit-making (Ditcher and Harper, 2007). The pursuit of profit-making objective by MFIs, attracted the entrance of commercial entities, such as commercial banks (Mersland and Strom, 2010; Consultative Group to Assist the Poor (CGAP), 2001). Some critics have argued that the profit-making objective of MFIs' could lead to loss of sight from the original social objective of lending to the poor (Mersland and Strom, 2010; Ditcher and Harper, 2007). Prominent among these critics is the Nobel Peace Prize winner, Mohammad Yunus, who claimed that too much focus on profit could crowd out poorer clients and lead to mission drift (Christen and Drake, 2002).

Mission drift occurs when the composition of microfinance clients shifts from the poorer to wealthier ones (Cull et al. 2007). It means a shift in focus from the rural poor, especially women, who are the original social target of microfinance, to wealthier clients. Some of the reasons for focusing on the wealthier clients by the MFIs include reduction of high costs that are associated with small loans to the poor, avoidance of arrears arising from non-repayment of loans by the poor and attraction of donors' funding through good financial performance.

The microfinance market in Nigeria has evolved over time, from the rotating savings and credit associations (ROSCAs) in the 1980s to the regulated microfinance banks (MFBs) (Seibel and Max, 1984; Ehigiamusoe, 2011). The native microfinance institutions, which is an offshoot of ROSCA, is characterised by high savings, group lending and informal mode of operation (Seibel, 2004). The transition from ROSCAs to modern microfinance bank witnessed various interventions from both private and public initiatives such as cooperatives, non-governmental organizations (NGOs), money lenders and the government. Most private initiatives, especially from NGOs, mainly depended on donor funding, operated group delivery methodology, were limited in outreach and were focused on women (Ighomereho et al, 2012; and Ehigiamusoe, 2011). The Government microfinance initiatives such as the Peoples Bank, the Community Banking scheme and the Family Economic Advancement Programme (FEAP) are pro-poor institutions that somehow lost their focus because of poor governance, lack of requisite manpower, under-capitalisation, lack of local community involvement and political interference, amongst others (Ehigiamusoe, 2011; and Enendu et al. 2010).

In Nigeria, despite the various microfinance initiatives, a large number of people are still poor. The United Nations' Global Multi-Dimensional Poverty Index (2015), using indicators, such as, education, health, and living standards, showed that, on the average, poverty level was 47.7 percent in Nigeria. The statistics further showed that the poverty rates in the North-East and the North-West of Nigeria were as high as 76.8 percent and 80.9 percent, respectively. About 64.1 percent of the adult population is excluded from banking services (EFInA, 2012). Moreover, studies have shown that about 96 percent of businesses are small and medium enterprises (SMEs) compared with 65 percent in Europe and 53 percent in the USA. However, SMEs in Nigeria only accounted for about 1 percent of GDP, whereas in Europe and USA, SMEs accounted for about 50 percent (IFC, 2002 and Oyelaran-Oyeyinka, 2007). The low contribution of SMEs to GDP in Nigeria is attributed mainly to the challenge in accessing funds due to lack of credit history and high default rate or low repayment rate, amongst others. The high poverty rate and low access to financial services put more emphasis on the role of microfinance institutions in the fight against poverty. Therefore, the occurrence of microfinance mission drift in Nigeria could have severe implications for the industry and for the poor who provide justification for the existence of microfinance institutions.

This study, therefore, tests for the existence of mission drift in Nigeria using panel data methodology from the period 2011 to 2014. The choice of the methodology is predicated on the ground that panel data analysis addresses problems associated with static cross-sectional and ordinary regression analysis by partially accounting for variation in the data within the short span of available observations. The approach takes care of problems of unobserved heterogeneity commonly associated with cross-sectional studies and accounts for idiosyncratic errors. These problems are time-constant factors and time-varying errors that affect the dependent variable (Wooldridge, 2006). Moreover, the large dataset of MFBs employed for the study is a novelty because most of the existing studies on microfinance in Nigeria rely on survey methodology, which is not only subject-biased but limited in its application. The paper is divided into five sections. Following the introduction is Section 2, which presents the empirical literature. Section 3 focuses on the empirical framework and method, while section 4 analyses the results of the regression models and Section 5 concludes the study.

LITERATURE REVIEW

There is paucity of studies on microfinance mission drift in Nigeria. However, there is a plethora of studies on the issue in other developing countries. Findings from these studies are at variance, with some affirming mission drift, some refuting it, and some others calling for further research on the issue. Studies such as CGAP (2001), Milgram (2001), Dichter (2002) as cited by Hishigsuren (2004), Coleman (2006), Cull et al. (2007), Hishigsuren (2007), Cull et al. (2009), Maskay (2011), Serrano-Cinca and Gutierrez-Nieto (2014) and Abrar and Javaid (2014) empirically proved the existence of mission drift. Other studies, such as, Gonzales-Vega et al. (1997), Christen (2000), Navajas et al. (2000), and Frank (2008) could not find evidences to support existence of mission drift, while the study by Campion and White (1999) called for further research, Armendariz and Szafarz (2009) and D'Espallier and Szafarz (2013) could not ascertain whether mission drift occurred or not.

In the early 2000s, the growth of commercialised microfinance institutions and the increased competition among the regulated microfinance institutions in Latin America prompted the CGAP to conduct a study that assessed the effect of new entrants into the industry. The result of the study showed that new entries promote market deepening, penetration and saturation. It also indicated that larger loan balances of commercial oriented MFIs were not for poor clients but for the wealthier clients. (CGAP, 2001).

The study conducted by Milgram (2001), in northern Philippines, contrasted self-sustaining and propoor new microfinance programs. The author discovered that the quest to become self-sustaining makes MFIs susceptible to targeting not-so-poor clients. Moreover, Ditcher (2002), as cited by Hishigsuren (2004), used clients' profiles such as rural/urban, poor/better-off and rural/urban of the NGOs' MFIs to study mission drift. He found that MFIs lend more short-term loans to the retail trade in urban areas as against lending to the poor in rural area, thereby shifting focus from the poorest.

Moreover, Cull et al. (2007), employed cross-country data to examine the possibility of MFIs having profit objective whilst focusing on the poor. They confirmed trade-off between profitability and poverty objectives. Also, Cull et al. (2009) further improved their earlier finding, using gender and average loan size to test the effect of microfinance commercialisation on poverty. They concluded that commercialisation of microfinance was indeed bad news for the poor, as it is associated with increased loan size and less focus on women. The methodology proposed by Hishigsuren (2007), to better understand scaling up and social mission, showed that mission drift was not a deliberate policy of MFIs' management but a product of the process of scaling up. The change in priority of MFIs and their financial performance prompted Maskay (2011) to study Paschimanchal Grameen Bikas Bank (PGBB) in Western Development Region of Nepal. The author used both quantitative and qualitative approaches to examine factors that influence mission drift. The study found evidence of mission drift

spanning 1995/96 – 2010/2011. The findings further showed that institutional environment was the most significant factor that influenced microfinance mission drift.

The increased drive to achieve financial sustainability motivated Wagenaar (2012) to investigate evidence of mission drift among transformed MFIs from non-profit MFIs, using panel data analysis of 1,558 MFIs spanning fifteen years. The findings indicated higher average loans size and lower lending to women borrowers in profit MFIs than for non-profit MFIs. The results further showed that NGOs that transformed to MFIs had higher average loan and lower lending to women clients than non-transformed NGOs. To test for who benefits from microfinance services between the poor and wealthy in Northeast Thailand villages, Coleman (2006) surveyed sample of participants of microfinance services and non-participants. The aim was to test the success of the microfinance programme in terms of outreach to the poorest of the poor. The results of the survey showed that the programme had not reached the poor as much as the wealthy, and that the wealthy clients circumvent the rules and use their influence to borrow significant loans when compared with the rank-and-file clients.

Similarly, Serrano-Cinca and Gutierrez-Nieto (2014) used the long tail theory to prove that some MFIs have lost focus on their mission of poverty reduction. The Pareto principle asserts that wealth distribution within a population exhibits unequal pattern (long tail) rather than normal distribution of the bell-curve. They showed that MFIs clients fall into the tail of the wealth distribution category where transactional costs are high and subsidies are needed to augment low revenue and lack of deposit. They argued that too much focus on financial performance by the MFIs could lead to mission drift. Contributing to the debate of microfinance commercialization and mission drift, Abrar and Javad (2014) used data of microfinance institutions from 72 countries from six regions of the world, using panel data methodology, to test for mission drift. The result confirmed the existence of mission drift as a result of focus on commercialization.

However, Navajas et al. (2000) used different indicators of outreach in Bolivia such as depth, breadth and length of outreach, worth to users and scope of output to test for mission drift. Their finding rather showed that the depth of outreach to the poorest improved, which implied the absence of mission drift. Frank (2008) focused on the effect of transformation process on some selected control of 25 MFIs visà-vis non-governmental organizations' (NGOs) MFIs. He used average loan size, portfolio growth, saving mobilization, client, profitability and shareholding structure indicators for the analysis. The finding re-affirmed that transformation of MFIs helped to improve outreach and product services of MFIs.

Contributing to the MFIs mission drift literature, D'Espallier and Szafarz (2013) observed that substantial numbers of MFIs are still subsidized despite increasing call for self-sustainability in order to reach more poor people. The study compared unsubsidized MFIs' performances with that of subsidized MFIs. The overall finding showed that subsidized MFIs are better off in meeting its social objective. However, the performances of unsubsidized MFIs vary across regions. In Africa, unsubsidized MFIs charge higher interest rate to compensate for non-subsidization, while unsubsidized MFIs in Central Asia target less poor customers and in Latin American, microfinance institutions reduce lending to women clients to compensate non-subsidization.

Christen (2000) also conducted a study on Latin America, he tested for the relationship between microfinance commercialization and mission drift. His finding did not show significant difference between loan size of the non-regulated and the regulated microfinance institutions. However, the subsequent work by Olivares-Polanco (2005) on 28 Latin America MFIs using multiple regression analysis indicated that more competition leads to larger loan sizes and less depth of outreach. The study pointed out the existence of trade-off between sustainability and depth of outreach in Latin America. In addition, Hermes et al. (2011) provided new insights to the trade-off between sustainability and

outreach of MFIs, using 435 MFIs' data during the period 1997 to 2007. The findings from their study affirmed strong evidence of negative relationship between efficiency and outreach; it further showed that less efficiency was associated with outreach to the poor.

There are few studies on microfinance mission drift on Nigeria, these include Nawaz (2010), Abdulai and Tewari (2017) and Adewale (2014). Nawaz (2010) used panel of Sustainability Dependence Index of 179 MFIs in 54 countries, Nigeria inclusive, to investigate the mission drift tendency of microfinance institutions. The study found existence of trade-off between outreach and sustainability. The result further showed that the process of scaling up by MFIs would eventually lead to higher administrative costs. Abdulai and Tewari (2017) examined the trade-off between the depth and breadth of outreach as well as the institutional factors that drive microfinance outreach with a focus on SSA, Nigeria inclusive. Their findings showed that a trade-off exists between the depth and breadth of outreach of MFIs in the region. The study revealed a number of institutional level factors, such as the loan portfolio, the interest rate, operating expenses to assets ratio, return on assets and return on equity strongly influence the outreach performance of institutions. While the portfolio at risk only drives MFIs depth of outreach, staff productivity impacts on only the breadth dimension of outreach. Adewale (2014) applied Kuznet's Inverted U hypothesis theory of development to test whether trade-off exist between scaling up and outreach to microfinance clients in Nigeria. He noted that entrance of big banks with their commercial philosophy and the transformation of commercial-oriented community banks to microfinance banks increased competition and funding of microfinance, but further discriminating against the core poor in Nigeria.

Other existing studies on microfinance such as Njoku and Odii (1991), Oke et al. (2007), Eze and Ibekwe (2007), Ugwumba et al. (2008), Ugbomeh (2008), Oladeebo and Oladeebo (2008), Mkpado et al. (2010), Julius and Aminant (2011), Onyeagocha et al. (2012), Nwosu et al. (2014), Coker and Audu (2015), and Eze et al (2016) were either focusing on poverty and repayment issues or impact of microfinance loans on clients.

The summary of these reviews on Nigeria showed the following: first, few studies exist on mission drift in Nigeria; second, the studies are not specifically focused on Nigeria; and third, they are majorly based on survey methodology and theories. The above weaknesses cited in previous studies, thus provide justification for this study.

EMPIRICAL FRAMEWORK AND METHOD

The empirical framework for this study is based on a one-way error component of panel data methodology, and is specified thus:

$$y_{it} = \beta X_{it} + \delta Z_i + u_i + \varepsilon_{it} \qquad I = 1, \dots, N; \qquad t = 1, \dots, T$$
(1)

The y_{it} in the equation represents the dependent variable, where the subscript i stands for individual MFB and cross-section aspect of the equation. The timing aspect of the equation is represented by the subscript t while β is $(K \times 1)$ vector of coefficients on X_{it} and X_{it} is a $(K \times 1)$ vector of observed microfinance bank-specific characteristics that vary over time and individual MFBs. On the other hand, Z_i is a $(1 \times p)$ vector of time-invariant variables, it only changes with individual MFBs but does not vary with time. The δ represents $(p \times 1)$ vector of coefficients on Z_i ; u_{it} represents the error term, which is divided into two components, such that $u_{it} = \mu_i + v_{it}$; the μ_i represents the unobserved MFB-specific effect (it is an unobserved heterogeneity commonly associated with cross sectional MFIs).

The second component V_{it} represents the idiosyncratic error, which captures other unaccounted factors that are not included in the model but have effect on the dependent variable. Thus, these conditions hold: $\mu_i \sim IIN(0, \sigma_v^2)$ and independent of $v_i \sim IIN(0, \sigma_v^2)$ in a one-way error component regression model.

To specify the mission drift models, the panel data methodology by Cull et al. (2007) was adopted. Two indicators of mission drift, namely, average loan size (AVLOAN) and percentage of women clients were used as the dependent variables. Each of these variables was explained by a set of explanatory variables, namely, operating self-sufficiency (OPSS), interest rate proxy by yield (YIELD), labour cost (LABCOST), a measure of efficiency (EFF) and orientation proxy by loans to assets ratio (LOASS). Some of the independent variables were further interacted with individual and group lending variables to know the extent to which lending models affect mission drift (Cull et al. (2007). Microfinance banks usually disburse their loans through individual and solidarity or group lending models. Thus, equation (2) becomes:

$$AVLOAN_{it} = \alpha + \alpha_1 OPSS_{it} + \alpha_2 Yield_{it} \times LendingType_{it} + \alpha_3 LabCost_{it} + \alpha_4 LabCost_{it} \times LendingType_{it} + \alpha_5 Loass_{it} + \alpha_6 Scale_{it} + \alpha_7 Eff_{it} + u_{it}$$
(2)

where AVLOAN which is the average loan size, is measured by dividing the total loan portfolio end of period by total number of outstanding loans end of period (UNCDF, 2002). Studies such as Ghosh and Van Tassel (2008), Rosenberg (2009), Copestake (2007), Cull et al. (2007), Mersland and Strom (2010), Schreiner (2010), Armendariz and Szafarz (2009) and Hermes et al. (2011), have measured mission drift with different indicators, such as average loan size, percentage of women borrowers, lending methodology, the percentage of clients in the bottom half of the population, poverty gap ratio and poverty scorecards. However, most of these studies either use average loan size or percentage of women borrowers as indictors of mission drift (Mosely, 2001; Armendariz and Szafarz, 2009). There is the belief that the poor always demand for smaller loans. Thus, variations in such loan always reflect poverty condition of the poor. Therefore, a decrease in average loan size is synonymous with the increase in the depth of outreach to the poor; on the other hand, a rise in loan size is seen as diversion of resources from the poor to wealthier clients (Armendariz and Szafarz, 2009). Another good indicator is the percentage of women borrowers. The increased lending to women is seen as giving more resources to the poor of whom women constitute greater percentage. In Nigeria, microfinance banks generally lend small loans to the poor. They are mostly women focused institutions (Ighomereho et al, 2012; and Ehigiamusoe, 2011). In view of these characteristics of the microfinance institutions in Nigeria, this study, therefore, adopts average loan size and percentage of lending to women variables as indicators of mission drift.

OPSS is operating self-sufficiency, and an indicator of sustainability. It is measured by the ratio of total financial revenues to the sum of financial expenses, loan loss provision and operating expenses. Therefore, a positive relationship between average loan size and sustainability indicator **OPSS**, implies the existence of microfinance mission drift. Also, a negative coefficient implies increased depth of outreach to the poor and non-existence of microfinance mission drift (Cull et al. 2007; Muller and Uhde, 2008; Freixas and Rochet 2008; Mersland and Strom, 2010; Abrar and Javaid, 2014).

SCALE is the size of MFBs measured by total assets and is expected to have positive relationship with the average loan size (Abrar and Javaid, 2014). The *LABCOST* is the labour cost and it is measured by the personnel expenses divided by total assets. It is expected that labour cost would impact negatively on the average loan size. The *EFF* represents microfinance banks' efficiency, which is the ratio of personnel and administrative expenses to the period average of gross loan portfolio. A negative

coefficient is expected if MFBs are less efficient while more efficient MFBs would impact positively. The *LOASS* is a measure of orientation; it is measured by the ratio of total loans to total assets. A high ratio implies MFBs are more at risk to default, while the low ratio means MFBs are less at risk to default.

In equation (3), the percentage lending to women was used as dependent variable, followed by a set of the same explanatory variables used in equation (2). A negative coefficient of sustainability (*OPSS*), in this case, implies that the more sustainable MFBs become, the less their outreach to women.

$$GENDER_{ii} = \alpha + \alpha_1 OPSS_{ii} + \alpha_2 Yield_{ii} \times LendingTyp_{ii} + \alpha_3 LabCost_{ii} + \alpha_4 LabCost_{ii} \times LendingTyp_{ii} + \alpha_5 Loass_{ii} + \alpha_6 Scale_{ii} + \alpha_7 Eff_{ii} + u_{ii}$$
(3)

Data Description and Sources of Data

The study evaluated 752 microfinance banks in Nigeria using panel dataset during the period 2011 to 2014. The data were collected from the Central Bank of Nigeria (CBN).

Variable Name	Definition of Variable	Mean	Minimum	Maximum
OPSS	Financial Sustainability	0.56	-0.96	22.00
	Average Loan Balance per	1 5 4	0.001	
AVLOAN	Borrower	1.56	0.001	47.15
LABCOST	Labour Cost	0.57	0.00	6.60
EFF	Efficiency	0.35	0.00	20.28
SCALE	Total assets	2,269	8.97	262,577
LOASS	Loans to Assets Ratio	0.51	0.003	19.75
GENDER	Percentage of women borrowers	0.45	0.00	1.00
	Yield on gross loan			
YIELD	portfolio	0.31	-0.35	20.31

 Table 1: Variables and Descriptive Statistics

Source: Central Bank of Nigeria's FinA Off-Site Surveillance System, data base. The values of AVLOAN, and

SCALE are in US\$'000

THE RESULTS

Summary Statistics

Measure of sustainability (OPSS) has the mean ratio of 0.56 in Table 1 implying that MFBs, on the average, are unsustainable because the ratio is below 1.00. The average loan size per borrower for the industry is estimated at US\$1,560. The data for female clients reveal that, on the average, female clients constitute 45 per cent of total active borrowers, indicating that microfinance banks in Nigeria lend more to male clients than female clients. Further analysis show that some microfinance banks are wholly focused on women, while in some other cases, they are more focused on male clients.

Empirical Analysis of Mission Drift Models

The result of the Hausman tests for models in column (1) and (3) in Table 2 confirm the appropriateness of random effect model in column 3. It implies that the estimator assumes higher and additional orthogonality conditions and that the regressors are not correlated with the individual-specific error. The result of the regression showed that sustainability, OPSS, was negative (-0.1) and significant. It shows that sustainable MFBs tend to be more focused on the poor clients; it also implies increased depth of MFBs outreach to the poor. The result conforms to the results obtained by Christen (2000) Navajas et al. (2000) and Frank (2008) that showed negative relationship between sustainability and average loan size. This result allays fear expressed by Yunus that clients who are better off could crowd out poorer customers in microfinance credit scheme in Nigeria. Other factors that affect average loan size included interest rate of individual and group lending models, individual and group labour costs, MFBs scale and efficiency.

	FIXED EFFECT		RANDOM EFFECT	
	Average Loan Size (AVLOAN) (1)	Percentage of Women Borrowers (GENDER) (2)	Average Loan Size (AVLOAN) (3)	Percentage of Women Borrowers (GENDE R) (4)
Operating Self-Sufficiency (OPSS)	-0.06*** (-3.78)	-0.16 (-1.52)	-0.06** (-3.71)	-0.15 (-1.46)
Yield	-0.18** (-2.00)	2.77*** (4.55)	-0.17** (-1.93)	2.74*** (4.50)
Yield x Individual Lending Model	-0.02**	-0.07	-0.02** (-2.25)	-0.07
Yield x Group Lending Model	0.03***	-0.30***	0.03***	-0.30***
Labour Cost x Individual Lending Model	(3.03) -0.06* (1.84)	(-4.36) 0.05 (0.21)	(2.98) -0.07** (1.96)	(-4.34) 0.05 (0.21)
Labour Cost x Group Lending Model	0.09** (2.09)	0.09 (0.33)	0.09** (2.23)	0.09 (0.33)
Log of Scale (LSCALE)	0.02** (2.33)	0.38*** (7.89)	0.02** (2.33)	0.38*** (7.80)
Efficiency (EFF)	0.95**	-0.77***	0.09**	-0.75***
Constant	(2.41) 0.28***	(-2.87) 0.32	(2.27) 0.28***	(-2.80) 0.37
	(3.30)	(0.57)	(3.27)	(0.65)

Table 2: Mission Drift Regressions

() t-Statistic, *** significant at 1%, ** significant at 5%, * significant at 10%

The Hausman test (1&3) shows Chi2(8)=7.15, with the Prob>Chi2=0.5210, while for 2 & 4 shows Chi2(8)=91.29 and Prob>Chi2=0.0000. When P-value is insignificant i.e.

Prob>chi2 larger than 0.05, random effects is chosen but when is significant fixed effect is selected. Based on Hausman test, Random effect models in column 3 & Fixed effect in column 2 are chosen for this analysis The second regression, the fixed effect model in column 2 and the random effect model in column 4 of Table 2 were compared using Hausman test. The results of the Hausman test indicate the appropriateness of the fixed effect model column 2. It implies that the regressors are unrelated with the idiosyncratic error. The result of the regression showed negative coefficient between operating self-sufficiency ratio (OPSS) and percentage of women borrowers. The negative coefficient is not as expected; however, we cannot conclude that sustainable MFBs lend less to women clients because the coefficient is not significant. In the case of Cull et al. (2007) result, the coefficient was rather positive and significant as expected. Further analysis of the results of the present study showed that the coefficient of interest rate (Yield) is negatively related with lending to women. However, when interest rate was allowed to interact with lending models, the result showed a negative relationship with GENDER. These results suggest that women clients are more sensitive to increase in interest rates on loans. The result further shows that increasing MFBs' size seems to be positively associated with lending to women, as a unit increase in the size of MFBs would improve lending to women by 0.4 per cent.

CONCLUSION

The study empirically examined whether microfinance mission drift exist in Nigeria or not. Panel data methodology was used to estimate fixed effect and random effect models from panel dataset of 752 microfinance banks in Nigeria during the period 2011-2014. The results showed that sustainability is significant and negatively related with the average loan size (AVLOAN). This suggests that sustainable MFBs tend to be more focused on the poor clients which implied increase in the depth of outreach. However, in the second model, the result showed that operating self-sufficiency ratio (OPSS) is negatively related with percentage of women borrowers, although, the coefficient was not significant. These findings suggest that the claim of microfinance mission drift is not evident in Nigeria. In view of these findings, the study concludes that sustainability and outreach are not necessarily incompatible.

REFERENCES

- Abdulai, A. and D. D. Tewari (2017). "Determinants of microfinance outreach in Sub-Saharan Africa: A panel approach", *Acta Commercii*, Vol 17, No 1.
- Abrar, A. and A. Y. Javaid (2014). "Commercialization and Mission Drift A Cross Country Evidence on Transformation of Microfinance Industry", *International Journal of Trade, Economics and Finance*, Vol. 5, No. 1, pp. 122-125.
- Adewale, A. A. (2014). "Livelihood Assets Financing as a CRS Initiative of Microfinance Banks in Nigeria", O. I Samuel, S. K Abubakar and Y. M Asli (Eds.), "People, Planet and Profit: Socio-Economic Perspectives of CRS (pp. 220 -234)", Routledge, London and New York.
- Armendariz de Aghion, B. and A. Szafarz (2009). "On Mission Drift in Microfinance Institutions", CEB Working Paper, vol. 09, No. 15.
- Campion, A. and V. White (1999). "Institutional metamorphosis: Transformation of microfinance NGOs into regulated financial institutions", *MFN Occasional paper*, No 4.
- CGAP (2001). "Commercialisation and Mission Drift: The Transformation of Microfinance in Latin America", Occasional Paper, no. 5
- Christen, R (2000). "Commercialisation and mission drift: the transformation of microfinance in Latin America", Avaliable at: http://pdf.dec.org/pdf_doc/PNACL636.pdf
- Christen, R. and D. Drake (2002). "Commercialisation. The new reality of microfinance", D. Drake, and E. Rhyne (Eds.), "The commercialization of microfinance, balancing business and development (pp.2-22)", Kumarian Press, Bloom-field.
- Coleman, B. E (2006). "Microfinance in Northeast Thailand: Who Benefits and How Much?" World Development, Vol. 34, No. 9, pp.1612-1638.
- Coker, A. A. and M.K. Audu (2015). "Agricultural micro-credit repayment performance: Evidence from Minna Microfinance Bank, Nigeria", *African Journal of Agricultural Research*, Vol. 10, No. 9, pp. 877-885.
- Copestake, J (2007). "Mainstreaming Microfinance: Social Performance Management or Mission Drift?" World Development, Vol. 35, No. 10, pp. 1721-1738.
- Cull, R., A. Demirguc-Kunt and J. Morduch (2007). "Financial Performance and Outreach: A Global Analysis of Leading Microbanks", *The Economic Journal*, Vol. 117, No. 517, pp. 107-133.
- Cull, R., A. Demirguc-Kunt and J. Morduch (2009). "Microfinance meets the market", *Journal of Economic Perspectives*, Vol. 23, No. 1, pp. 167-192.
- D'Espallier, B., M. Hudon and Szafarz (2013). "Unsubsidized microfinance institutions" *Economics Letters*, Vol. 120, pp. 174-176.
- Dichter, T. W. and M. Harper (2007). "What's wrong with microfinance", T.W. Ditcher and M. Harper (EDs.), "What's wrong with microfinance", Practical Action Publishing, Essex, England.

- EFlnA (2012). "EFlnA Access to Financial Services in Nigeria 2012 Survey", available at: www.efina.org/media-centre/events/innovation-fora/from-data-to-action.
- Ehigiamusoe, G (2011). "Issues in Microfinance: Enhancing Financial Inclusion", Mindex Publishing Co. Ltd, Benin City.
- Elendu, C.I., P. Nwaoba, U. Kama, S.M. Salisu, J. Yakubu, C.P. Nwosu (2010). "The Financial Sector",
- Eze, C.C. and U.C. Ibekwe (2007). "Determinants of Loan Repayment under the Indigenous Financial System in Southeast, Nigeria", The Social Sciences, Vol. 2, No. 2, pp.116-120.
- Eze, C.C. et al (2016). "Women Entrepreneurs' Access to Microfinance Bank Credit in Imo State, Nigeria", Global Journal of Agricultural Research, Vol. 4, No.1, pp. 9-17.
- Frank, C (2008). "Stemming the tide of mission drift: microfinance transformations and the double bottom line", Women's World Banking Focus Note.
- Freixas, X. and J. C. Rochet (2008). "Microeconomics of Banking (2nd ed.)", MIT Press, Cambridge, Mass.
- Ghosh, S. and E. V. Tassel (2008). "A Model of Mission Drift in Microfinance", Available at: www.spanish.microfinancegateway.
- Gonzalez-Vega, C., M. Schreiner, R. L. Meyer, J. Rodriguez and S. Navajas (1997). "BancoSol: The challenge of growth for microfinance organizations", Avaliable at: http://www.microfinancegateway.org/content/article/detail/1420
- Hermes, N., R. Lensink and A. Meesters (2011). "Outreach and efficiency of microfinance institutions", World Development, Vol. 39, No. 6, pp.938-948.
- Hishigsuren, G (2004). "Scaling up and mission drift: Can microfinance institutions maintain a poverty alleviation mission while scaling up?", Doctor of philosophy Dissertation, Southern New Hampshire University, United Kingdom.
- Hishigsuren, G (2007). "Evaluating Mission Drift in Microfinance: Lessons for Programs with Social Mission", *Evaluation Review*, Vol. 31, no. 3, pp.1040-68.
- IFC (2002). International Finance Corporation, "Assessing the vulnerability to failure of American industrial firms: A logistics analysis", *Journal of Business Finance and Accounting*, Vol 8, No 4, pp. 19-45.
- Ighomereho, S.A., R.S. Dauda, and J. Olabisi (2012). "Making Cooperatives Effective For Poverty Alleviation And Economic Development in Nigeria", O. O. Oluyombo, (eds.), "Cooperative Finance in Developing Economies", Soma Prints Ltd, Lagos, pp. 23-39.
- Julius, A. A., and A. B. Aminat (2011). "Microfinance and Gender in the context of millennium development goals (MDGs) in Nigeria", *Journal of Development and Agricultural Economics*, Vol. 3, no. 3, pp. 98-106.
- Maskay, N. M (2011). "Identifying influencing factors of mission drift in microfinance institutions: A case study of Paschimanchal Grameen Bikas Bank, Nepal", *NRB Working Paper*, No. 8.

- Mersland, R. and R. O. Strom (2010). "Microfinance mission drift?" World Development, No. 38, vol. 1, pp. 28-36.
- Milgram, B. L (2001). "Operationalizing microfinance: Women and craftwork in Ifugao, Upland Philippines", Human Organization, Vol. 60, pp. 212-224.
- Mkpado, M., M. A Idu and C. J Arene (2010). "Effect of Membership Homogeneity on the Performance of Agricultural Micro-Credit Groups in Rural credit Markets, Nigeria", *Pakistan Journal of Social Sciences*, Vol. 7, no. 4, pp. 304-317.
- Mordi, C.N.O, A. Englama and B.S. Adebusuyi (2011), "The Changing Structure of the Nigerian Economy", Atisele Vanessa Cards Co, Nigeria.
- Mosley, P (2001). "Microfinance and Poverty in Bolivia" The Journal of Development Studies, Vol.37, no. 4, pp. 101-132.
- Muller, O. and A. Uhde (2008). "The Impact of External Governance Quality on the Economic Success of Microfinance Institutions Empirical Evidence", Available at: htt://apps.olin.wustl.edu/FIRS/pdf/MemberPapers/258/27.pdf
- Navajas, S. et al (2000). "Microcredit and the Poorest of the Poor: Theory and Evidence from Bolivia", *World Development*, Vol. 28, pp. 333-346.
- Nawaz, A. (2010). "Efficiency and productivity of microfinance: Incorporating the role of subsidies," Working Papers CEB 10-009.
- Njoku, J. E. and M.A.C.A. Odii (1991). "Determinants of Loan Repayment under the Special Emergency Loan Scheme (SEALS) in Nigeria: A Case Study of Imo State", *African Review of Money Finance and Banking*, No. 1, pp. 39-52.
- Nwosu, F. O. et al (2014). "Loan Accessibility and Repayment Performance of Livestock Farmers under the Agricultural Credit guarantee Scheme Fund in Southeast, Nigeria", *Developing Country Studies*, Vol. 6, no. 6, pp. 63-69.
- Oke, J. T. O., R. Adeyemo, and M. U Agbonlahor (2007). "An Empirical Analysis of Microcredit Repayment in Southwestern Nigeria", Human & Social Sciences Journal, Vol. 2, no. 1, pp. 63-74.
- Oladeebo, J. O., and O. E Oladeebo (2008). "Determinants of Loan Repayment among Smallholder Farmers in Ogbomosho Agricultural Zone of Oyo State", Nigeria. *Journal of Social Science*, Vol. 17, no. 1, pp. 59-62.
- Olivares-Polanco, F (2005). "Commercialising Microfinance and Deepening Outreach? Empirical Evidence from Latin America", *ESR Review*, Vol. 7, No 2.
- Onyeagocha, S. U.O. et al (2012). "Determinants of Loan Repayment of Microfinance Institutions in Southeast States of Nigeria", *International Journal of Social Science and Humanities*, Vol. 1, No. 1, pp. 4-9.
- Oyelaran-Oyeyinka, B. (2007). "SME: Issues, Challenges and Prospects', Presented at the International Conference on Financial System Strategy 2020.

- Rosenberg, R (2009). "Measuring results of microfinance institutions", Consultative Group to Assist the Poor (CGAP)
- Schreiner, M (2010). "Seven extremely simple poverty scorecards", Enterprise Development and Microfinance, Vol. 21, No. 2, pp. 118-136.
- Seibel, H. D. and M.T. Marx (1984). "Ansatzmoglichkeiten fur die Mobilisierungvon Sparkapital zur Entwicklungsfinanzierung: Genossenschaften und autochthone Sparund Kreditvereine in Nigeria", Research Reports BMZ, Vol. 63.
- Seibel, H.D (2004). "Upgrading indigenous microfinance institutions in Nigeria: Trials and errors", The Nigerian Economic Summit Group, London.
- Serrano-Cinca, C. and B. Gutierrez-Nieto (2014). "Microfinance, the long tail and mission drift", International Business Review, Vol. 23, pp.181-194.
- Ugbomeh, G. M. M (2008). "Determinants of Loan Repayment Performance Among Women Self-help Groups in Bayelsa State, Nigeria", Agriculturae Conspectus Scienticus, Vol. 73, No. 3.
- Ugwumba, C. O. A., E. L. C Nnabuife and P. C Ike (2008). "Loan Repayment Among Microfinance Cooperators of the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) in Anambra State", *Journal of Research in National Development*, Vol. 6, no. 2.
- UNCDF (2002). "Microfinance Distance Learning Course", New York, United Nations Capital Development Fund Publication.
- Waggenaar, K (2012). "Institutional transformation and mission drift in microfinance", Centre of Development Studies, University of Cmbridge.
- Wooldridge, J. M (2006). "Introductory Econometrics: A Modern Approach", Lachina Publishing Services, Canada.