Effects of Transformation on Outreach Performance of Microfinance NGOs in Kenya

Crispin John Mbogo

Accounting and Finance Department, St. Augustine University of Tanzania

ABSTRACT

This research examines how transformation affects the outreach performance of microfinance NGOs in Kenya. Specifically, it analyzes the impact of various transformation indicators on outreach performance. Utilizing a quantitative research approach, the study utilizes

unbalanced panel data spanning 19 years (1997 to 2015) obtained from the Microfinance Information Exchange (Mix) Market databank, focusing on six surveyed transformed microfinance NGOs in Kenya. Panel data regression models and instrumental variables estimation methods are employed for model specification. The findings reveal that outreach, measured by the average loan balance per borrower, is significantly and negatively influenced by the debt-to-asset ratio but not significantly affected by the debt-to-equity ratio or deposits-to-total assets ratio. The percentage of female borrowers is significantly influenced by the debt-to-equity ratio and debt-to-asset ratio, while the number of active borrowers is significantly influenced by the debt-to-asset ratio, deposits-to-total assets ratio, institutional size, and institutional age. These results suggest a necessity for microfinance NGOs facing capital funding challenges to devise policies that facilitate the utilization of commercial capital sources to expand outreach to impoverished individuals. Nonetheless, the management of transformed microfinance NGOs must implement safeguards ensuring that the pursuit of commercial funding options and public deposits does not compromise their mission of serving the most vulnerable populations.

Keywords: Microfinance, Microfinance NGOs, Transformation, Outreach Performance

INTRODUCTION

Microfinance is the provision of small-scale financial products and services such as loans, savings, insurance, fund transfers and other financial instruments to lower-income individuals excluded from mainstream financial institutions (Amin, Qin, Rauf & Ahmad, 2017; Lopatta, Tchikov, Jaeschke & Lodhia, 2017) to finance their economic activities and alleviate poverty in the society (Thrikawala, Locke & Reddy, 2013; Quayes & Hasan, 2014; Jha, 2017). Microfinance institutions are small scale financial services providers which may include commercial banks, financial intermediaries not providing banking services, credit unions and non-governmental organisations (NGOs) (Louis & Baesens, 2013). Microfinance NGOs are financial intermediaries whose capital structure is mainly limited to funds and supports of technical assistance from international donors, income from lending and subsidized loans (Satta, 2004; Hishigsuren, 2006). Schreiner (2002) defines outreach as the social benefits enjoyed by poor clients of the microfinance institution.

Microfinance institutions are progressively being appreciated to play a key role in the fight against poverty especially in less developed economies (Armendáriz & Vanroose, 2009; Bakhtiari, 2011; Khan, 2015). Despite the success records of microfinance institutions and even after being in operation for more than 30 years, there is still a large segment of the poor population facing difficulties accessing financial services (Kar, 2011; Bogan, 2012; Adu, Anarfi & Poku, 2014). In most of the developing countries, microfinance institutions serve 5-20% of the poor population (Hubka & Zaidi, 2005). Reports show that more than 50%

of the poor population in Kenya lack access to mainstream banking system (Ali, 2015). The Financial Sector Deepening (FSD) reports that the mainstream banking sector in Kenya serves less than 4 million people, which leaves majority of the economically active people to utilize the risky and expensive financial services and products of the informal and semi-formal financial intermediaries (Ali, 2015).

This implies that there is still a need for microfinance to significantly scale up to achieve its potential by reaching out to billions of people, globally, who are currently not served by the sector (Herrmann-Pillath & Schicks, 2007). However, limited capital and lack of loanable funds are explained to be the main challenges facing microfinance institutions' efforts to deepen their outreach performance to a larger group of clients at the bottom of the pyramid (Chijoriga, 2015). However, most of the thousands of operating microfinance institutions are NGOs depending largely on donor funds (from different multilateral institutions) and government subsidies to provide financial services and products to their clients at low cost (Vanroose & D'Espallier, 2013; Louis et al., 2013; D'Espallier, Goedecke, Hudon, & Mersland, 2017; Amin et al., 2017). Donor funding from multilateral institutions is always limited and not sufficient to satisfy the ever-growing demand for microfinance institutions (Intersect, 2005; Khan, 2008). Additionally, the competition for donor funds from other microfinance institutions makes this source of capital funding highly uncertain and in most cases, donor funds are prioritized for start-up microfinance NGOs (Ghosh & Van Tassel, 2008).

In recent years, the microfinance sector in Kenya has experienced some microfinance NGOs transforming into regulated microfinance institutions (RMFIs) such as Sidian Bank, Faulu Microfinance Bank Limited and Kenya Women Microfinance Bank Limited. However, empirical studies on the effects of transformation on the outreach performance of microfinance NGOs in Kenya are very rare. Therefore, this study examines the effects of transformation on the outreach performance of microfinance NGOs in the context of Kenya.

LITERATURE REVIEW

Theoretical Framework

This study was underpinned by dynamic capabilities framework (Teece, Pisano & Shuen, 1997). The dynamic capabilities framework contends that possessing a heterogeneous and inimitable bundle of resources does not necessarily mean that the organisation will be able to maintain its superior performance in the long-term but the ability of the firm to cope with the dynamic nature of resources and capabilities systems and their ever-changing relationship (Grobler, 2007). Therefore, the dynamic capabilities framework explains the dynamic interactions between the environment of the firm and the essential capability building for sustainable competitive advantage (Zaidi & Othman, 2012). Dynamic capabilities framework was chosen to guide this study because it explains the changes that are taking place in the firm which consequently necessitates changes of the resources that are acquired and utilized by microfinance institutions and hence determines the performance of the firm.

The theoretical discussion on the transformation of microfinance NGOs can also be anchored on the life cycle theory of microfinance institution development (de Sousa-Shields & Frankiewicz, 2004). The institutional life-cycle theory explains the process of change in organizations arguing that organizations are entities that share processes similar to those of any human's psycho-social development (Bayai & Ikhide, 2016b). In its life cycle development, a microfinance institution passes through start-up stage, growth stage and maturity stage. The life cycle theory postulates that capital funding for microfinance institutions is associated with their respective stage of institutional development (Farrington & Abrams, 2002). This entails that the diverse changes that are taking place in the microfinance institution at different stages of its development necessitate divergent sources of funding for its operations and sustainability (Bogan, 2012).

Commercial Capital and Outreach Performance

Microfinance NGOs have not been successful at accessing commercial sources of capital funding because

they are not regulated (Hishigsuren, 2006; Bogan et al., 2007). Transformation into a regulated microfinance institution guarantees payback of the borrowed funds and investments to commercial lenders such as banks as well as investors and depositors (Ledgerwood & White, 2006). That is why the microfinance industry has recently witnessed several microfinance NGOs transformed into regulated microfinance institutions to have access to commercial sources of capital funding (Hishigsuren, 2006; Bayai et al., 2016a). The microfinance NGOs have transformed their capital structures from one that depends largely on donor funding and subsidies to capital structures that integrate commercial sources such as loans at market rates and equity funding (Campion & White, 2001; Charitonenko, 2003; Khan, 2008; Cull, Demirgüç-Kunt & Morduch; 2009; Johnson, 2015).

Mobilization of Savings and Outreach Performance

Possible sources of funding available to microfinance institutions to capitalize on loan portfolios include mobilization of savings (among others) from the public. However, regulatory policies in most countries do not allow financial intermediaries that are not regulated to take savings from the public due to a lack of insurance mechanisms for those savings (Frank et al., 2008). According to McGuire et al. (2000), savings mobilization from the public is an important financial intermediation and stable source of capital base that most microfinance institutions could use to secure funds that supplement the limited donations and subsidies.

Some microfinance NGOs have transformed into regulated microfinance to be able to take deposits from the public to build a stable source of capital base (CGAP, 2005; Frank, et al, 2008). The ability to mobilize savings from the public contributes both to meeting the effective demand for financial services by the poor and enhancing the long-term sustainability of the transformed microfinance institution (Elser et al, 1999). According to Mwizarubi, Singh, Mnzava & Prusty (2016), the mobilization of savings from the public constitutes the most significant drive of financial sustainability among other sources of capital funding for microfinance institutions.

EMPIRICAL LITERATURE REVIEW

Commercial Capital and Outreach Performance

A considerable body of empirical studies exist that discuss the transformation of microfinance NGOs and its effects on outreach performance. Various researchers including Hartarska (2005), Mersland and Strom (2007), Mori and Olomi (2012) and Bakker, Schaveling and Nijhof (2014) report that different indicators such as debt-to-equity ratio and debt-to-asset ratio can be used to study the relationship between commercial capital funding and performance of microfinance institutions. Johnson (2015) studied how the change in financing microfinance institutions affects outreach objectives using cross-sectional data from 74 microfinance institutions. The study found that the more the microfinance institutions is financed by commercial debt the lower the outreach performance. Osotimehin, Jegede and Akinlabi (2011) employed a pooled ordinary least squares regression method to study factors of outreach performance measured by number of active borrowers in microfinance institutions of South-Western Nigeria. The authors employed secondary data from 80 microfinance institutions for period of six years from 2005 to 2010 and found that there is a positive and significant relationship between outreach and debt-to-equity ratio but there was a non-significant relationship between outreach and savings, institutional size and age.

Bayai et al. (2016a) conducted a conceptual review on the link between financing of microfinance institutions and indicators of financial sustainability. The authors noted that donor funding is losing control as a popular microfinance institution financing option. Instead, more focus is on debt which has been shown to improve the financial sustainability of microfinance institutions but warned management to keep borrowing limits to control liquidation and avoid financial performance objectives to overshadow outreach goals. Furthermore, the authors found that the mobilization of savings from the public increasessustainability

sustainability and expands the outreach performance of microfinance institutions. Results of the study proved that scarce equity funds provide a cheap source of capital for microfinance institutions and guarantee financial sustainability which implied that the management should consider formulating strategies that would enable microfinance institutions to have access to and utilize commercial sources of capital funding while ensuring that the option for external sources of capital funding do not outperform efforts of attaining financial sustainability and expanding outreach performance.

Mobilization of Savings and Outreach Performance

Diop, Dorsner and Gross (2003) investigated the factors that determine savings mobilization for Mutual Savings and Loans Institutions in some of the West African Economic and Monetary Union (WAEMU) countries. The study surveyed the structural and financial characteristics of the microfinance institutions and found that there were some similar savings services and products in most of the sampled countries. However, the study noted differences in the levels of mobilization of savings from the public which could have been caused by micro and macroeconomic factors and specific features like outreach and transaction costs. These findings lead the study to recommend utilization of mutual funds and loans and introduction of a wide variety of savings products to attract more savings.

Rao and Fitamo (2013) studied credit provision and savings mobilization of microfinance institutions in Ethiopia and their trend during 2007–2011. The authors found that the microfinance institutions had different backgrounds to the major outreach measures and also found out that the three institutions under investigation use different policies and programs to credit provision as well as savings mobilization.

Conceptual Framework

Figure 2.1 presents the conceptual framework illustrating the interrelationship of the variables used in this study. The independent variable is the transformation of microfinance NGOs and the dependent variable is outreach performance. There are three variables explained in the conceptual framework that were identified from the reviewed theoretical and empirical literature on the effects of transformation on the outreach performance of microfinance NGOs. The conceptual framework illustrates that the transformation of microfinance NGOs is the independent variable while outreach performance is the dependent variable. Additionally, institutional size (measured by the total value of assets owned by the institution) and institutional age (measured by the number of years the institution has been in operation) were treated as control variables. The conceptual framework shows that the transformation of microfinance institutions was assessed by access to commercial sources of capital and the ability of the transformed microfinance institution to attract savers/mobilize savings from the public.
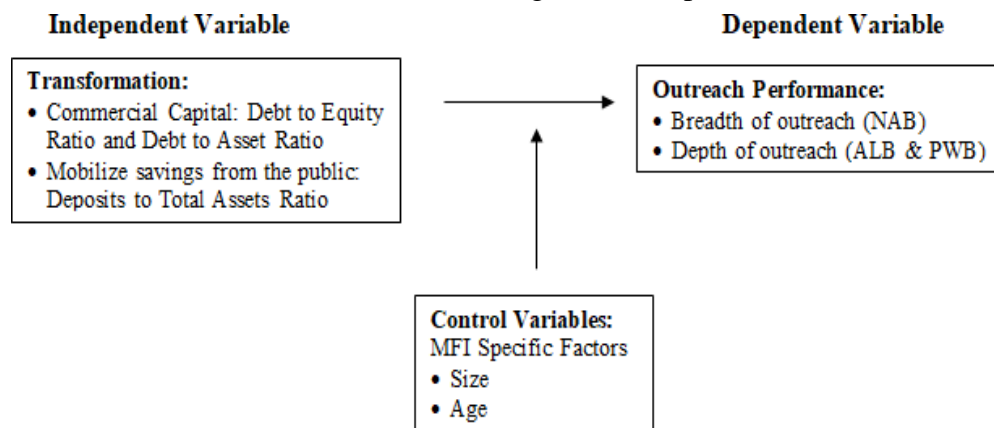

Figure 2.1: Conceptual framework of the relationship between transformation of microfinance NGOs and outreach performance

Source: Own formulation based on Hamel et al. (2005), Teece et al. (1997) and Casselman et al. (2013)

RESEARCH METHODOLOGY

This study collected numerical data and used quantitative data examination methods to study the cause-effect relationship between the transformation of microfinance NGOs and outreach performance. Therefore, the population for this study included commercial and microfinance banks that have transformed from microfinance NGOs. By June 2015, the Kenyan banking sector was comprised of two (2) commercial banks that were transformed from microfinance NGOs, namely Sidian Bank and Jamii Bora Bank (CBK Annual Report, 2015). The sector was also comprised of four (4) microfinance banks (MFBs) that were transformed from microfinance NGOs including Faulu Microfinance Bank Ltd, Kenya Women Microfinance Bank Ltd, SMEP Microfinance Bank Ltd and Uwezo Microfinance Bank Ltd. The study has taken a census survey whereby all commercial and microfinance banks that have transformed from microfinance NGOs were involved in the investigation. Therefore, the unit of analysis for this study had six

(6) financial institutions including Sidian Bank, Jamii Bora Bank, Faulu Microfinance Bank Ltd, Kenya Women Microfinance Bank Ltd, SMEP Microfinance Bank Ltd and Uwezo Microfinance Bank Ltd.

The study applied secondary data that was collected from the Microfinance Information Exchange (Mix) Market database on the selected indicators of transformation and outreach performance of the sampled microfinance institutions. The Mix Market is a non-profit organization based in the United States that has the most comprehensive, reliable and publicly available audited financial and outreach performance information on institutions that offer microfinance services and products to the poor, all over the world (Shu & Oney, 2014). Websites of the targeted commercial and microfinance banks were also visited to access published audited financial statements to complement the missing data collected from Mix Market. Moreover, individual microfinance institutions were contacted to get updated and detailed information. The study used statistical ratios analyses to establish the association between the transformation of microfinance NGOs and outreach performance using an unbalanced panel dataset of 6 cross sections (commercial and microfinance banks) for 19 years extending from 1997 to 2015. Unbalanced panel data resulted from the fact that the time series data collected and applied in this study was not the same for all the six cross sections.

The study preferred to use panel data because of its potential for the analysis of causal relationships between transformation and outreach performance in the transformed microfinance NGOs (Berrington, Smith & Sturgis, 2006). Panel data can be analyzed using fixed effects model or random effects model (Park, 2015). Hausman test was applied to decide on whether to use the fixed effects regression model or random effects regression model for the analysis of panel data with the null hypothesis that the individual specific effects and the regressors in the model are not correlated. A test with a significant probability statistic value ($p < 0.05$) indicated that fixed effect regression model was appropriate to analyze the panel data, otherwise a random effect regression model was applied.

Shapiro-Wilk test and Kernel density plots were applied to examine the normality assumption for the distribution of the study variables. A collinearity diagnostic routine using pairwise correlation was performed in the linear regression model to detect the existence of multicollinearity problems in the selected indicators of transformation of microfinance NGOs. Variance Inflation Factor (VIF) as well as tolerance statistic values were also used to check for multicollinearity. The rule of thumb used was that, if the resulting VIF value lies between 1 and 10 then there is no multicollinearity problem (Bowerman & O'Connell, 1990). The tolerance value was obtained by subtracting the value of R from 1 (O'brien, 2007).

Variables with tolerance statistic values less than 0.1 were considered as having multicollinearity problems (Tabachnick & Fidell, 2001; Katz, 2011). A heteroskedasticity test using Breusch-Pagan Test/Cook- Weisberg was

deployed to examine the existence of constant variance among the range of predictor variables/error terms i.e., Var (u/X1, . . , Xk) = σ. The study performed also the Wooldridge test to check if the error terms from consecutive periods are uncorrelated (Studenmund, 2013), that is, the error term for period t-1 is uncorrelated with the error term for period t. A robust consistent standard error approach was carried out in the regression models to clear all possible heteroscedasticity and autocorrelation problems in the models (Long & Ervin, 2000; Hayes & Cai, 2007). To check whether the values of the response variable for two different periods are not related to each other (i.e., stationarity test), the study used the Fisher test for panel unit root using an augmented Dickey-Fuller (ADF) to examine the existence of unit root in the dependent variable, i.e., outreach performance. A significance level (alpha) of $p < 0.05$ was applied in this study. The study rejected the null hypotheses if the calculated test statistic value was significant, i.e., falls below the chosen significance level ($p < 0.05$).

METHODS AND TOOLS

Multiple regression statistical tool was applied in this study as the central statistical technique to examine the effects of transformation on the outreach performance of microfinance NGOs (Quayes, 2012; Assefa et al., 2013; Adhikary et al., 2014). The study used statistical ratios analyses to establish the association between the transformation of microfinance NGOs and outreach performance using an unbalanced panel dataset of 6 cross sections (microfinance banks) for 19 years extending from 1997 to 2015. To analyze the effects independent variable, the transformation of microfinance NGOs, on outreach performance (the dependent variables), the following basic panel data regression model was applied:

$$Y_{i,t} = \alpha + \beta X' + u_{i,t} \text{ where } i = 1. . . N \text{ and } t = 1. . . T \tag{1}$$

Where:

i stands for cross-section dimension i.e., individual microfinance institutions and t stands for the period dimension. α is scalar, β is a $Kx1$ vector and $X_{i,t}$ is a vector of explanatory or independent variables. Beyond the institution-specific variables identified, the study believes that the individual institutions might have other unobserved characteristics that differentiate them from each other. To estimate the panel data model that takes care of such unobserved individual-specific effects, this study applied a one-way error component model and re-write equation (1) as follows:

$$Y_{i,t} = \alpha + \beta X' + \mu_i + v_{i,t} \tag{2}$$

Where:

$u_{i,t} = \mu_i + v_{i,t}$ and μ_i stand for the unobserved heterogeneity time-invariant institution-specific effect and $v_{i,t}$ denotes the remainder of the disturbances.

Models Specification

Variables and indicators included in the empirical model were selected based on the reviewed literature and availability of data. This study aimed to test and examine the effects of transformation on the level of outreach performance of microfinance NGOs, that is, transformation enables the regulated microfinance institutions to reduce average loan balance per borrower and increase the percentage of female borrowers and number of active borrowers. Following the recent literature, the following econometric panel data model with aggregated time effects was estimated:

$$Y_{i,t} = \alpha_i + \delta_i X_{i,t} + \beta_i' \text{Trans}_{i,t} + \varepsilon_{i,t} \tag{3}$$

Where:

$Y_{i,t}$ is the dependent variable i.e. outreach performance of the microfinance bank $_i$ at time $_t$, with i = 1,…,6, t = 1,…,19, α_i is the value of a constant term, X_i represents control variables for the microfinance bank $_i$ at time $_t$ with coefficient δ_i, $\text{Trans}_{i,t}$ represent the transformation indicators of the microfinance institution $_i$ at time $_t$ with a coefficient β_i, and $\varepsilon_{i,t}$ is the error term.

RESULTS AND DISCUSSION

Transformation of Microfinance NGOs and Average Loan Balance per Borrower

This study used fixed effects regression model with a consistent robust standard error approach to analyze the effects of the selected indicators of transformation of microfinance NGOs on outreach performance as measured by average loan balance per borrower (ALBB). To establish the actual regressors, the study applied a backward stepwise regression method with a 0.1 significance level for the coefficients where DER was removed and the final model used is given below:

$$lnALBB_{i,t} = \beta_0 + \beta_1 lnDAR_{i,t} + \beta_2 DTAR_{i,t} + \beta_3 lnAssets_t + \beta_4 lnAge_t + u_{i,t} \tag{4}$$

Where:

$lnALBB_{i,t}$ represents the natural logarithm for average loan balance per borrower (dependent variable), β_0 is the value of a constant term, $DTAR_{i,t}$ stands for deposits to total assets ratio, $lnAssets$ represent the natural logarithm of assets, $lnAge$ stands for the natural logarithm of age, β_{1-4} represent the parameters of the independent variables, and $u_{i,t}$ is the error term. All variables are for the microfinance bank $_i$ at time $_t$, with i = 1… 6 and t = 1… 19.

Econometric results from the fixed effects regression model recorded a very significant F (4, 52), Prob > 0.0000 at 0.05. Therefore, the study rejected the null hypothesis and concluded that the estimated regression model was significant in establishing the effects of the transformation of microfinance NGOs on average loan balance per borrower indicator of outreach performance. The R-squared values indicated that using average loan balance per borrower as a measure of outreach performance, the variations that can be explained by transformation are higher within the same microfinance institution than from one microfinance institution to the next. However, overall, the estimated regression model explains 63.46% of the variations in the average loan balance per borrower determinant of outreach performance using the selected independent variables (see Table 4.1).

Econometric results demonstrated a significant effect of debt-to-asset ratio on average loan balance per borrower. As expected, the coefficient is negative and statistically significant at the 0.05 level. Results show that for one unit increase in debt-to-asset ratio, the average loan balance per borrower is anticipated to decrease by 2.8697 units, when the remaining variables in the model are kept constant. This implies that as the microfinance institution opts to finance its capital with a higher proportion of debt relative to asset (higher debt to asset ratio) outreach performance will increase noted by the decrease in average loan balance per borrower. However, Kar (2011) and Hoque et al. (2011) found that an increase in leverage measured by debt-to-asset ratio decreases outreach performance measured by average loan balance per borrower in microfinance institutions.

Deposits to total assets ratio recorded a non-significant effect on average loan balance per borrower.

Unexpectedly, the coefficient is positive and statistically insignificant at the 0.05 level. Results show that for one unit increase in deposits to total assets ratio, it is anticipated that the average loan balance per borrower will increase by 2.8062 units, when the remaining variables in the model are kept constant. This suggests that as the microfinance institution relies heavily on deposit financing to achieve financial sustainability, its outreach performance proxied by the average balance per borrower decreases. Nevertheless, the insignificant coefficient in this model implies that outreach performance proxied by the average loan balance per borrower is not compromised by the deposit-to-total-assets ratio as the microfinance institution chooses to finance its capital by taking deposits from the public. These results concur with the findings in the study of Bogan (2012) and Millson (2013).

Regression results demonstrated that institutional size positively affected the average loan balance per borrower. Unexpectedly, the coefficient is positive and statistically significant at the 0.05 level. Results show that for one unit increase in institutional size, the average loan balance per borrower is anticipated to increase by 0.6884 units, when the remaining variables in the model are kept constant. Mature microfinance institutions have a greater opportunity to utilize commercial sources of capital. An increase in the use of debt capital (cost of borrowing) puts more pressure on financial performance than outreach objectives resulting in a positive relationship between institutional size and average loan balance per borrower. This result affirms the findings in Kar (2013) but is in contrast with the evidence found in Kar (2011) and Bogan (2012).

Econometric results demonstrated that institutional age inversely affected the average loan balance per borrower. As expected, the coefficient is negative and very significant at the 0.05 level. Results show that for one unit increase in institutional age, the average loan balance is anticipated to decrease by 2.7848 units, when the remaining variables in the model are kept constant. This suggests that as microfinance institutions get older (mature) the level of outreach performance increases depicted by decreasing average loan balance per borrower. This could probably be explained by the experience mature microfinance institutions have gained in the industry and the trust built within a community. This finding supports the life cycle theory of institutional development which suggests utilization of divergent sources of capital as the microfinance institution matures. This result is in line with the study of Olivares-Polanco (2005) and Millson (2013), however, the result is at odds with the findings of Christen (2001).

Table 4:1 *Fixed Effect Regression Model: Effects of Transformation on Average loan balance per borrower.*

lnALBB	Coef.	Robust Std. Err.	t	P>|t|
lnDAR	-2.869729	.4919848	-5.83	0.002
DTAR	2.806226	1.343255	2.09	0.091
lnAssets	.6884066	.2374513	2.90	0.034
lnAge	-2.784835	.4418672	-6.30	0.001
_cons	-5.985288	3.911654	-1.53	0.187
R-sq	Within = 0.6926	Between = 0.5145		Overall = 0.6346

Transformation of Microfinance NGOs and Number of Active Borrowers

This study used random effects regression model with consistent robust standard errors approach to analyse the effects of the selected indicators of transformation of microfinance NGOs on outreach performance as measured by a number of active borrowers (NAB). To establish the actual regressors, the study applied a backward stepwise regression method with a 0.1 significance level for the coefficients where DER was removed and the final model used is given below:

$$lnNAB_{i,t} = \beta_0 + \beta_1 lnDAR_{i,t} + \beta_2 DTAR_{i,t} + \beta_3 lnAssets_t + \beta_4 lnAge_t + u_{i,t} \qquad (5)$$

Where:

$lnNAB_{i,t}$ is the natural logarithm of the number of active borrowers (dependent variable), β_0 is the value of a constant term, $lnDAR_{i,t}$ is the natural logarithm of debt to asset ratio, $DTAR_{i,t}$ stands for deposits to total assets ratio, $lnAssets$ represents the natural logarithm of assets, $lnAge$ stands for the natural logarithm of age, β_{1-4} represents the coefficients of the independent variables, and $u_{i,t}$ is the error term. All variables are for the microfinance bank $_i$ at time $_t$, with i = 1… 6 and t = 1… 19.

Econometric results from the random effects regression model indicated a very significant Wald chi2 (4) = 930.62, Prob> chi2 = 0.0000. Therefore, the study rejected the null hypothesis that all coefficients are equal to zero and concluded that at the 0.05 level, the estimated regression model was significant in establishing the effects of transformation of microfinance NGOs on the number of active borrowers' indicator of outreach performance. The R-squared values indicate that using the number of active borrowers as a measure of outreach performance, the variations that can be explained by transformation are higher from one microfinance institution to the next than within the same microfinance institution. However, overall, the estimated regression model explains 91.24% of the variations in the number of active borrower's measure of outreach performance using the selected independent variables (see Table 4.2).

Economic results indicated that debt to asset ratio positively affected the number of active borrowers. As expected, the coefficient is positive and statistically significant at the 0.05 level. This means that for a unit increase in debt -to-asset ratio, the number of active borrowers is anticipated to increase by 2.5551 units, when the remaining variables in the model are kept constant. This suggests that as the microfinance institution opts for commercial debt (higher debt-to-assets ratio), its outreach performance measured by the number of active borrowers increases proportionately. This result is in line with the findings in the study of Hoquel et al. (2011) who evidenced that the higher the leverage the greater the outreach level for the microfinance institution. However, using a different regression model, Hoque et al. (2011) observed a negative relationship between leverage and outreach.

Deposit-to-total-assets ratio was noted to significantly affect the number of active borrowers. As expected, the coefficient is positive and statistically significant at the 0.05 level. Results show that for a unit increase in deposit-to-asset ratio, the number of active borrowers for the microfinance institution is anticipated to increase by 3.4858 units, when the remaining variables in the model are kept constant. This implies that as a microfinance institution encompasses the proportion of deposits in its financing structure, its ability to reach more borrowers increases. This result confirms the findings in the study of Hartarska et al. (2007) and Awaworyi et al. (2014 but differs from the findings in the study of Osotimehin et al. (2011).

Economic results showed that institutional size very significantly affects the number of active borrowers. As expected, the coefficient is positive and statistically significant at the 0.05 level. This means that for a unit increase in institutional size, the number of active borrowers is anticipated to increase by 0.5853 units, when the remaining variables in the model are kept constant. This could be so because large microfinance institutions have more access to commercial sources of capital than small ones which enables them to increase the number of active borrowers. This result is in line with the findings in the study of Hartarska, et al. (2007), Hoque et al. (2011) and Bogan (2012). However, other studies found a positive non-significant association between institutional size and number of active borrowers (Millson, 2013; Ahmed, Ibrahim, Said, and Salleh, 2016).

Furthermore, regression results indicated that there is a very significant effect of institutional age on the number of active borrowers. As expected, the coefficient is positive and very significant at the 0.05 level.

Results show that for a unit increase in institutional age, the number of active borrowers is anticipated to increase by 2.6694 units, when the remaining variables in the model are kept constant. This suggests that mature microfinance institutions reach/serve more clients (borrowers) than new ones. This result concurs with the findings in the study of Hoque et al. (2011) and Hartarska et al. (2007). However, this result is at odds with the evidence found in the study of Millson (2013) and Osotimehin et al. (2011).

Table 4.2 *Random Effects Regression Model: Transformation with Number of Active Borrowers*

lnNAB	Coef.	Robust Std. Err.	z	P>|z|
lnDAR	2.555083	.4022731	6.35	0.000
DTAR	3.485787	.5707798	6.11	0.000
lnAssets	.5853424	.097226	6.02	0.000
lnAge	2.669408	.3290125	8.11	0.000
_cons	1.112078	1.55642	0.71	0.475
R-sq	Within = 0.6403	Between = 0.9946		Overall = 0.9124

Transformation of Microfinance NGOs and Percent of Female Borrowers

This study used random effects regression model with a consistent robust standard error approach to analyze the effects of the selected indicators of transformation of microfinance NGOs on outreach performance as measured by the percent of female borrowers (PFB). To establish the actual regressors, the study applied a backward stepwise regression method with a 0.1 significance level for the coefficients where lnAge was removed and the final model used is given below:

$$lnPFB_{i,t} = \beta_0 + \beta_1 lnDER_{i,t} + \beta_2 lnDAR_{i,t} + \beta_3 DTAR_{i,t} + \beta_4 lnAssets_t + u_{i,t} \qquad (6)$$

Where:

$lnPFB_{i,t}$ is the natural logarithm of the percent of female borrowers (dependent variable), β_0 is the value of a constant term, $lnDER_{i,t}$ stands for natural logarithms of debt to equity ratio, $lnDAR_{i,t}$ is the natural logarithm of debt-to-asset ratio, $lnDTAR_{i,t}$ stands for the natural logarithm of deposits-to-total-assets ratio, $lnAssets$ represents the natural logarithm of assets, β_{1-4} represents the coefficients of the independent variables, and $u_{i,t}$ is the error term. All variables in the model are for the microfinance bank i at time t, with i = 1… 6 and t = 1… 19.

Econometric results from the random effects regression model indicated a very significant Wald chi2 (4) = 859.75, Prob> chi2 = 0.0000. Therefore, the study rejected the null hypothesis that all coefficients are equal to zero and concluded that at the 0.05 level, the estimated regression model was significant in establishing the effects of transformation of microfinance NGOs on percent of female borrowers' indicator of outreach performance. The R-squared values indicate that using the percentage of female borrowers as a measure of outreach performance, the variations that can be explained by transformation is higher within the same microfinance institution than from one microfinance institution to the next. However, overall, the estimated regression model explains 26.92% of the variations in the return on assets using the selected independent variables (see Table 4.3).

Econometric results indicated that debt-to-equity ratio inversely affects the percent of female borrowers. The coefficient being negative and statistically significant at the 0.05 level. Results show that for one unit increase in debt-to-equity ratio, the percentage of female borrowers is anticipated to decrease by 0.3039 units, when the remaining variables in the model are kept constant. This suggests that the use of commercial debt (debt relative to equity capital financing) in microfinance institutions is associated with lower outreach

performance to female borrowers. Increased use of commercial debt puts more pressure on financial performance thus reducing outreach to female clients. This result agrees with findings in the study of Kar (2011), Johnson (2012) and Millson (2013) who found a negative and significant relationship between the use of debt and depth of outreach performance in microfinance institutions but differs from Kipesha et al. (2013) found that debt to equity ratio is positively correlated with outreach measured by percent of female borrowers.

Results demonstrated further that there is a positive and significant effect of debt-to-asset ratio on the percentage of female borrowers. As expected, the coefficient is positive and statistically significant at the 0.05 level. Results show that for a unit increase in debt-to-asset ratio, the percentage of female borrowers is anticipated to increase by 1.3651 units, when the remaining variables in the model are kept constant. This suggests that when a microfinance institution opts for commercial debt as a source of capital funding, outreach performance measured by the percentage of female borrowers increases. This result is in contrast with the study of Millson (2013) who found a negative and insignificant association between debt and outreach performance measured by the percentage of female borrowers.

Regression results also showed that there is a non-significant effect of deposit-to-total assets ratio on the percentage of female borrowers. As expected, the coefficient is positive but statistically insignificant at the 0.05 level. This means that for a unit increase in deposit-to-total-assets ratio, the percentage of female borrowers is anticipated to increase by 0.1279 units, when the remaining variables in the model are kept constant. This implies that when a microfinance institution opts to finance its capital by taking deposits from the public, its outreach performance measured by the percentage of female borrowers increases. However, the insignificant coefficient in this model indicates that deposits do not necessarily increase female clients in microfinance institutions. This result is at odds with the findings in the study of Millson (2013).

Institutional size was noted to insignificantly affect the percentage of female borrowers. As expected, the coefficient is positive but statistically insignificant at the 0.05 level. Results show that for a unit increase in institutional size, the percentage of female borrowers is also anticipated to increase by 0.0228 units, when the remaining variables in the model are kept constant. This implies that larger microfinance institutions serve more female borrowers than small ones. Yet, the non-significant coefficient in this model implies that the option for commercial sources of funding as the microfinance institution grows in size does not necessarily increase outreach to female borrowers. This result concurs with the findings in the study of Millson (2013) who found a positive but significant association between institutional size and outreach performance measured by the percentage of female borrowers. However, this result is in contrast with the findings in the study of Bassem (2012).

Table 4.3 *Random Effect Regression Model: Transformation and Percent of Female Borrowers*

lnPFB	Coef.	Robust Std. Err.	z	P>|z|
lnDER	-.30385	.0664113	-4.58	0.000
lnDAR	1.365137	.1342885	10.17	0.000
DTAR	.127899	.1597281	0.80	0.103
lnAssets	.0228191	.0523697	0.44	0.063
_cons	.6385796	.8501486	0.75	0.453
R-sq	Within = 0.6699	Between = 0.0481		Overall = 0.2692

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study set out to investigate the effects of the transformation on the outreach performance of microfinance NGOs. Findings from the empirical analysis have shown that debt to asset ratio, deposits to total assets ratio, institutional size and age are the most important drivers of outreach measured by average loan balance per borrower number of active borrowers. These findings lead the study to conclude that commercial debt (debt to asset ratio) and mobilization of savings from the public (deposits to total assets ratio) significantly enable the attainment of outreach goals (average loan balance per borrower and number of active borrowers) of transformed microfinance NGOs in Kenya.

Implications of the Study Results on Transformation and Outreach Performance

The findings of this study suggest that specific indicators of microfinance NGO transformation wield significant sway over outreach performance in Kenya. Notably, metrics like debt to asset ratio and deposits to total assets ratio exhibit a pronounced impact on variables such as average loan balance per borrower and the number of active borrowers. Furthermore, the study underscores the critical role of the debt-to-equity ratio in shaping outreach of microfinance institutions to female clients. Consequently, effective management necessitates proactive measures such as transitioning to regulated microfinance entities. This strategic shift facilitates access to diverse capital sources, including debt capital and public deposits, thereby fostering expanded outreach and enhanced provision of financial services to impoverished clientele.

Limitations of the Study

The findings and conclusions made in this study may or may not be relevant for generalization to outreach performance of all microfinance institutions in Kenya or to the rest of the transformed microfinance NGOs all over the world due to insufficient data resulting from sample selection and selected area of the study.

REFERENCES

1. Adhikary, S. (2014). *Financial performance of microfinance institutions and outreach to the poor in South Asia*(Doctoral dissertation, Department of Economics, Aristotle University of Thessaloniki Thessaloniki, Greece). org/10.12681/eadd/34550
2. Adu, J. K., Anarfi, B. O., & Poku, K. (2014). The Role of Microfinance on Poverty Reduction: A Case Study of Adansi Rural Bank in Ashanti Region of Ghana. *Social and Basic Sciences Research Review*, *2*(3), 96-109.
3. Ahmed, I., Ibrahim, Y., Said, J., Salleh, M. F. (2016). Social Accountability of Microfinance Institutions in South Asian Region. *International Journal of Economics and Financial Issues*, *6*(3), 824-829.
4. Ali, A. E. E. S. (2015). The Regulatory and Supervision Framework of Microfinance in Kenya. *International Journal of Social Science Studies*, *3*(5), 123-130. org/10.11114/ijsss.v3i5.1004
5. Amin, W., Qin, F., Rauf, A., & Ahmad, F. (2017). Impact of MFIs Outreach on Profitability. The Case of Latin America. *Public Finance Quarterly*, *62*(3), 348-361.
6. Armendáriz, B and A Vanroose (2009). Uncovering three microfinance myths: Does age Matter? *Reflects et Perspectives de la Vie Economique*, *48*(3), 7–17. doi.org/10.3917/rpve.483.0007
7. Assefa, E., Hermes, N., & Meesters, A. (2013). Competition and the performance of microfinance institutions. *Applied Financial Economics*, *23*(9), 767-782; doi:1080/09603107.2012.754541
8. Awaworyi, S. K., & Marr, A. (2014). Sustainability and Outreach: A Comparative Study of MFIs in South Asia and Latin America & the Caribbean. *Monash University Department of Economics Working Paper Series, 13*, *14*. org/10.1111/boer.12100
9. Bakhtiari, S. (2011). Microfinance and poverty reduction: some international evidence. *International Business & Economics Research Journal (IBER)*, *5*(12). org/10.19030/iber.v5i12.3550

10. Bakker, A., Schaveling, J., & Nijhof, A. (2014). Governance and microfinance institutions. *Corporate Governance*, *14*(5), 637-652. org/10.1108/cg-03-2014-0032

11. Bassem, B. S. (2012). Social and financial performance of microfinance institutions: Is there a trade-off?. *Journal of Economics and International Finance*, *4*(4), 92-100. doi: 10.5897/JEIF11.129

12. Bayai, I., & Ikhide, S. (2016a). Financing and Financial Sustainability of Microfinance Institutions (MFIs): A Conceptual View. Banks and Bank Systems (open-access), 11(2). doi:10.21511/bbs.11 (2).2016.03

13. Bayai, I., & Ikhide, S. (2016b). Life Cycle Theory and Financial Sustainability of Selected SADC Microfinance Institutions (MFIs). *The Journal of Developing Areas*, *50*(6), 121-132. doi.org/10.1353/jda.2016.0120

14. Berrington, A., Smith, P., & Sturgis, P. (2006). An overview of methods for the analysis of panel data; Retrieved from http://eprints.ncrm.ac.uk/415/1/MethodsReviewPaperNCRM-007.pdf; [viewed on 22/11/2015]

15. Bogan, V. L. (2012). Capital structure and sustainability: An empirical study of microfinance institutions. *Review of Economics and Statistics*, *94*(4), 1045-1058. org/10.1162/rest_a_00223

16. Bowerman, B.L. and O'Connell, R.T. (1990). Linear statistical models: an applied approach. Belmont, CA: Duxbury.

17. Campion, A., & White, V. (2001). NGO transformation. *Microenterprises Best Practice Project: 31*.

18. Casselman, R. M., & Sama, L. M. (2013). Microfinance, Mission Drift, and the Impact on the Base of the Pyramid: A Resource-Based Approach. *Business and Society Revie*w, *118*(4), 437-461. DOI: 10.1111/basr.12017

19. CBK (2015). The Annual Report of the Central Bank of Kenya for the Fiscal Year 2014/15 Report; Retrieved from https://www.centralbank.go.ke/images/docs/CBKAnnualReports/Annual_Report_2015.pdf; [viewed on 21/02/2016]

20. CGAP (2005). Microfinance Consensus Guidelines: Developing Deposit Services for the Poor; CGAP/World Bank:

21. Charitonenko, S. (2003). Commercialization of Microfinance Philippines. Retrieved from; https://adb-test.atmire.com/bitstream/handle/11540/2380/micro-phi.pdf?sequence=1; [viewed on 06/11/2015]

22. Chijoriga, M. (2015). Transformation of Non-Governmental Micro Finance Institutions (MFIs) in Tanzania. *Business Management Review*, *15*(1).

23. Christen, R. P., & Drake, D. (2002). Commerciliazation. The new reality of microfinance. *Commercilization of microfinance: Balancing business and development*, 2-21

24. Cull, R., Asli Demirgüç-Kunt, A., & Morduch, J. (2009). Microfinance meets the market. *Journal of Economic perspectives*, *23*(1), 167-92. org/10.1596/1813-9450-4630

25. D'Espallier, B., Goedecke, J., Hudon, M., & Mersland, R. (2017). From NGOs to banks: Does institutional transformation alter the business model of microfinance institutions?. *World Development*, *89*, 19-33. org/10.1016/j.worlddev.2016.06.021

26. de Sousa-Shields, M., & Frankiewicz, C. (2004). Financing Microfinance Institutions: The Context for Transitions to Private Capital. *Micro Report*, *32*.

27. Diop, C., Dorsner, C., & Gross, D. M. (2003). *Understanding Savings Mobilisation by Mutual Savings and Loan Institutions in WAEMU Countries*. ILO.

28. Elser, L., Hannig, A., & Wisniwski, S. (1999). Comparative Analysis of Savings Mobilization Strategies. *Working Group on Savings Mobilization. Eschborn, Alemania: CGAP*.

29. Farrington, T., and Abrams, J. (2002), "The Evolving Capital Structure of Microfinance Institutions", *Micro-Enterprise Development Review, Washington D.C,* Inter-American

30. Frank, C., Lynch, E., & Schneider-Moretto, L. (2008). Stemming the tide of mission drift: microfinance transformations and the double bottom line. *Women's World Banking Focus Note*.

31. Frees, E. W. (2004). *Longitudinal and panel data: analysis and applications in the social sciences*. Cambridge University Press.

32. Ghosh, S., & Van Tassel, E. (2008). A model of mission drift in microfinance institutions.

Department of Economics, Florida Atlantic University, December. Retrieved from; http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-a-model-of-   mission-drift-in-microfinance-institutions-dec-2008_0.pdf; [Viewed on 21/02/2017]

33. Grobler, A. (2007), "A Dynamic View on Strategic Resources and Capabilities Applied to an Example from the Manufacturing Strategy Literature", Journal of Manufacturing Technology Management, *18*(3), 250-266. org/10.1108/17410380710730594

34. Hamel, G., & Prahalad, C. K. (2005). Strategic intent. *Harvard Business Review*, *83*(7), 148-161.

35. Hartarska, V. (2005). Governance and performance of microfinance institutions in Central and Eastern Europe and the newly independent states. *World development*, *33*(10), 1627-1643. org/10.1016/j.worlddev.2005.06.001

36. Hartarska, V., & Nadolnyak, D. (2007). Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied economics*, *39*(10), 1207-1222. doi**:** 1080/00036840500461840

37. Hayes, A. F., & Cai, L. (2007). Using Heteroskedasticity-Consistent Standard Error Estimators in OLS regression: An Introduction and Software Implementation. *Behavior Research Methods, 39*(4), 709-722. org/10.3758/bf03192961

38. Hishigsuren, G. (2006). Transformation of Micro-finance Operations from NGO to Regulated MFI. Decatur,   USA.   IDEAS;   Retrieved   from; http://www.spanish.microfinancegateway.org/files/36733_file_Hishigsuren.pdf;   [viewed   on 06/11/2014]

39. Hoque, M., Chishty, M., & Halloway, R. (2011). Commercialization and Changes in Capital Structure in Microfinance Institutions: An Innovation or Wrong Turn?. *Managerial Finance*, *37*(5), 414-425. doi: 11108/03074351111126906

40. Hubka, A., & Zaidi, R. (2005). Impact of government regulation on microfinance. Retrieved from; http://siteresources.worldbank.org/INTWDRS/Resources/477365- 1327693758977/Hubka_Zaidi_Impact_of_Government_Regulation. pdf ; [Viewed on 07/11/2014]

41. Intersect, J. (2005). Microfinance for Profit. *Research Review: February*. Retrieved from; http://www.jintersect.com/PDF/CAKE%20JI%20Microfinance%20for%20Profit_MF500021.pdf; [viewed on 07/12/2015]

42. Jha, D. K. (2017). *An Investigation of How Changes to Corporate Governance in Nepalese Microfinance Institutions may increase Outreach while maintaining their Financial Performance* (Doctoral dissertation, The University of Waikato).

43. Johnson, C. (2015). The Impacts of Capital Structure on Depth of Outreach in Sub-Saharan Africa. 118-149

44. Kar, A. K. (2013). Double bottom lines in microfinance: are they mutually exclusive?. J *ournal of Small Business & Entrepreneurship*, 26(1), 87-107. doi: 10.1080/08276331.2012.761804

45. Kar, A. K. (2011). Microfinance institutions: A cross-country empirical investigation of outreach and sustainability. *Journal of Small Business & Entrepreneurship*, *24*(3), 427-446. org/10.1080/08276331.2011.10593547

46. Katz, M. H. (2011). *Multivariable analysis: A practical guide for clinical and public health researchers* (3rd ed.). New York, NY: Cambridge University Press.

47. Khan, A. A. (2008). Paradigm Shift in the Microfinance Sector and its Implications for Theory Development: Empirical Evidence from Pakistan. *Australasian Accounting, Business and Finance Journal*, *2*(4), 6-32.

48. Khan, M. M. (2015). Credit Constraints for Microfinance Sector in Pakistan, an Analysis of Internal and External Factors. *International Letters of Social and Humanistic Sciences*, *47*, 164-173. org/10.18052/www.scipress.com/ilshs.47.164

49. Kipesha, E. F., & Zhang, X. (2013). Sustainability, Profitability and Outreach Tradeoffs: Evidences from Microfinance Institutions in East Africa. *European Journal of Business and Management*, *5*(8), 136-148.

50. Ledgerwood, J., & White, V. (2006). *Transforming Microfinance Institutions: Providing Full Financial Services to the Poor*. World Bank Publications; doi: 10.1596/978-0-8213-6615-8.

51. Long, J. S., & Ervin, L. H. (2000). Using heteroscedasticity consistent standard errors in the linear regression model. *The American Statistician*, *54*(3), 217-224. org/10.2307/2685594

52. Lopatta, K., Tchikov, M., Jaeschke, R., & Lodhia, S. (2017). Sustainable Development and Microfinance: The Effect of Outreach and Profitability on Microfinance Institutions' Development Mission. *Sustainable Development*, *25*(5), 386-399. org/10.1002/sd.1663

53. Louis, P., & Baesens, B. (2013). Do for-profit microfinance institutions achieve better financial efficiency and social impact? A generalised estimating equations panel data approach. *Journal of Development Effectiveness*, *5*(3), 359-380. doi:1080/19439342.2013.822015

54. McGuire, P. B., & Conroy, J. D. (2000). The microfinance phenomenon. *Asia Pacific Review*, *7*(1), 90-108. org/10.1080/713650817

55. Mersland, R., & Strøm, R. Ø. (2007). Microbanks: Ownership, performance and social tradeoffs-a global analysis.

56. Millson, H. F. (2013). The Trade-Off Between Sustainability And Outreach: The Experience Of Commercial Microfinance Institutions. Retrieved from; http://thesis.haverford.edu/dspace/bitstream/handle/10066/10992/2013MillsonH_thesis.pdf?sequence=1; [viewed on 07/11/2014]

57. Mori, N., & Olomi, D. R. (2012). *The effect of boards on the performance of microfinance institutions: evidence from Tanzania and Kenya*. Research on Poverty Alleviation (REPOA).

58. Mwizarubi, M., Singh, H., Mnzava, B., & Prusty, S. (2016). Emerging Paradigms of Financing Tanzanian Microfinance Institutions and their Impact on Financial Sustainability–Part I. *World*, *6*(1).

59. O'brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, *41*(5), 673-690. org/10.1007/s11135-006-9018-6

60. Olivares-Polanco, F. (2005). Commercializing microfinance and deepening outreach? Empirical evidence from Latin America. *ESR Review*, *7*(2), 47.

61. Osotimehin, K. O., Jegede, C. A., & Akinlabi, B. H. (2011). Determinants of microfinance outreach in South-Western Nigeria: An empirical analysis. *International Journal of Management and Business Studies*, *1*(1), 001-007.

62. Park, H. M. (2015). Linear regression models for panel data using SAS, Stata, LIMDEP, and SPSS.

63. Quayes, S. (2012). Depth of Outreach and Financial Sustainability of Microfinance Institutions. *Applied Economics*, *44*(26), 3421-3433; doi:1080/00036846.2011.577016

64. Quayes, S., & Hasan, T. (2014). Financial disclosure and performance of microfinance institutions. *Journal of Accounting and Organizational Change, 10*(3), 314-337. doi 10.1108/JAOC-12-2011-0067

65. Rao, K. R. M., & Fitamo, T. L. (2013). Credit Provision and Savings Mobilization of Microfinance Institutions in Ethiopia. *International Journal of Accounting and Financial Management Research, 3* (1), 157-176.

66. Satta, T. A. (2004). Microfinance regulation influence on small firms' financing in Tanzania. *Journal of financial regulation and compliance*, *12*(1), 64-74. doi.org/10.1108/13581980410810696

67. Schreiner, M. (2002). Aspects of outreach: A framework for discussion of the social benefits of microfinance. *Journal of international development*, *14*(5), 591-603. org/10.1002/jid.908

68. Shu, C. A., & Oney, B. (2014). Outreach and performance analysis of microfinance institutions in Cameroon. *Ekonomska istraživanja*, *27*(1), 107-119. org/10.1080/1331677x.2014.947108

69. Tabachnick, B. G., & Fidell, L. S. (2001). Using Multivariate Statistics. *Boston, MA: Pearson, Education, Inc*.

70. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 509-533. org/10.1002/(sici)1097-0266(199708)18:7<509::aid-smj882>3.0.co;2-z

71. Thrikawala, S., Locke, S., & Reddy, K. (2013). Social Performance of Microfinance Institutions (MFIs): Does Existing Practice Imply a Social Objective?. *American Journal of Business and Management*, *2*(2), 173-180. doi: 10.11634/216796061302340

72. Vanroose, A., & D'Espallier, B. (2013). Do microfinance institutions accomplish their mission? Evidence from the relationship between traditional financial sector development and microfinance

institutions' outreach and performance. *Applied Economics*, *45*(15), 1965-1982. doi: 10.1080/00036846.2011.641932

73. Zaidi, M. F. A., & Othman, S. N. (2012). Understanding the Concept of Dynamic Capabilities by Dismantling Teece, Pisano, and Shuen (1997)'s Definition. *International Journal of Academic Research in Business and Social Sciences*, *2*(8), 367.