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Compatibility of Financial and Outreach Performance in the Transformed NGO Microfinance Institutions in Kenya

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***Abstract*:** *Microfinance is gradually acknowledged as an effective tool of poverty reduction in the developing countries. This is because microfinance service providers play a significant role of ensuring access to financial services for the poorest segments of the society. The present study links financial performance with outreach to examine mission drift concern in the transformed NGO microfinance institutions in Kenya. The study adopts a quantitative research approach based on unbalanced panel data for 19 years extending from the year 1997 to 2015 obtained from Microfinance Information Exchange (Mix) Market database on six purposively selected transformed NGO microfinance institutions in Kenya. This study employs 2SLS regression of the instrumental variables estimation method for model specification. Results show that operational self-sufficiency increases with both average loan balance per borrower and percent of female borrowers which provides empirical evidence of mission drift concern in the transformed NGO microfinance institutions with regard to average loan balance per borrower. These results suggest that there is a need for the management of the NGO microfinance institutions that are faced with the challenges of capital funding to formulate or adopt policies that will enable utilization of commercial sources of capital funding to enhance financial performance and outreach to more poor people at the bottom of the pyramid. However, management of the institutions have to established mechanismsof ensuring that the option for commercial sources of capital funding including taking deposits from the public does not compromise the mission of reaching out to poorest of the poor.*

Keywords: *Financial Performance, Microfinance,NGO Microfinance Institutions Transformation,Outreach Performance*

I. INTRODUCTION

Microfinance is the provision of small scale financial services such as loans, savings, insurance, fund transfers and other financial instruments to lower income individuals excluded from the mainstream financial institutions (Amin, Qin, Rauf&Ahmad, 2017; Lopatta, Tchikov, Jaeschke&Lodhia, 2017) to finance their entrepreneurial activities and advance out of poverty (Quayes &Hasan, 2014; Jha, 2017). Despite of 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 to access financial services (Hishigsuren, 2007; Bogan, Johnson & Mhlanga, 2007;Armendáriz et al., 2009; Kar, 2011; Bogan, 2012; Adu, Anarfi&Poku, 2014; Ledgerwood, 2014). Studies estimate that over 500 million poor clients all over the world demand financial services (Helms, 2006). However, by the end of 2010 microfinance institutions were reported to have reached over 200 million poor clients, women forming 82.3% (Maes& Reed, 2012). In most of the developing countries, microfinance institutions serve 5-20% of the poor population (Hubka& Zaidi, 2005). Empirical evidence show that more than 50% of the poor population in Kenya has no access to traditional banking system (Ali, 2015). The Financial Sector Deepening (FSD) reports that Kenyan commercial banks serve no more than 4 million people, leaving the rest of the economically active population to depend on risky and expensive informal and semi-formal sources of finance (Ali, 2015).

Therefore, 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 main challenges facing microfinance institutions' efforts to expand the provision of financial services to a larger of group clients at the bottom of the pyramid (Chijoriga, 2015). Moreover, as the microfinance industry matures, financial performance has become a more important objective and another key challenge facing non-governmental organisations (NGO) microfinance institutions. NGO microfinance institutions depend largely on donor funds (from different multilateral institutions) and government subsidies to provide financial services to the poor at low cost(Vanroose&D'Espallier, 2013; Louis &Baesens, 2013; D'Espallier, Goedecke, Hudon, &Mersland, 2017; Amin et al., 2017). However, donor funding from the multilateral institutions are increasingly limited and insufficient to satisfy the ever growing needs of microfinance institutions (Intersect, 2005; Khan, 2008). Donor funds are also often characterized by a high level of uncertainty resulting from competition and in most cases prioritised for start-up NGO microfinance institutions.

In an effort to seek for alternative sources of funds for financial sustainability and deepen outreach performance to more poorer people at the bottom of the pyramid, some of the NGO microfinance institutions were/are being transformed or commercialised into formally regulated microfinance institutions (Fehr & Hishigsuren, 2006; Sarma, 2011; Quayes et al., 2014). It was deemed necessary to apply market based interest rates, earn higher profits and move efforts towards commercialization of microfinance institutions in order to achieve financial sustainability, ensure large scale outreach and make them efficient without depending on donor funds or government subsidies (Hina, n.d; Quayes et al., 2014). Putting emphasis on the achievement of financial sustainability guaranteesthe microfinance institutions' efforts of providing financial services to the poor (Huq, Azad, Masum, Wanke& Rahman, 2017).

The main objective of the transformation of the NGO microfinance institutions is claimed to be the pursuit of the double bottom lines goal of performance, that is achievement of both financial and outreach performance (Roy, 2017). In recent decades, the microfinance sector has witnessed a major shift from donor dependent microfinance programmes originated by NGO microfinance institutions to the development of financially viable, well regulated microfinance institutions serving the poorest segment of the population (Quayes et al., 2014; Amin et al., 2017). Like the rest of the world, the microfinance sector in Kenya has experienced some NGO microfinance institutions transformation into regulated microfinance institutions (RMFIs) such as Sidian Bank, Faulu Microfinance Bank Limited and Kenya Women Microfinance Bank Limited.

The pressure to become financially sustainable raises hesitations among scholars and practitioners that the transformed NGO microfinance institution might lose focus to its original mission (serving clients excluded from the mainstream financial system) and target better off borrowers and therefore unintentionally lower its contribution to alleviating poverty. There is an extensive debate in the existing literature regarding the compatibility of the financial and outreach performance in the transformed NGO microfinance institutions. However, empirical studies on the achievement of double bottom line goal in the transformed NGO microfinance institutions present mixed or even contradictory results (Kipesha, 2013). Some empirical studies found a positive correlation between financial sustainability and expansion of outreach performance in the transformed microfinance institutions (Fernando, 2004; Kar, 2012). Other studies have found a negative correlation between financial sustainability and the ability of the microfinance institution to deepen its outreach to the poor in the transformed microfinance institutions (Olivares-Polanco, 2005; Quayes, 2012; Kinde, 2012; Louis et al., 2013; Kar, 2013). Bassem (2012) found no meaningful association between depth of outreach and financial performance and concluded that microfinance institutions can well and truly achieve double bottom lines goal of performance.Moreover, previous academic studies have rarely investigated the association between financial and outreach performance in the transformed NGO microfinance institutions in Kenya. Hence, the association between these two variables remains obscure.

These contradicting empirical findings in the existing literature demonstrate lack of consensus and generate a primary dilemma in both the academic and professional worldand therefore the investigation on the compatibility of financial and outreach performance in the transformed NGO microfinance institutions must be extended.

II. LITERATURE REVIEW

Theoretical Review

This section present the theoretical discussions underpinning the study and review of documented empirical studies on the association between financial and outreach performance in microfinance institutions. The study was anchored on Dynamic Capabilities View, however, Life Cycle Theory was also reviewed.

Dynamic Capabilities View

The literature on dynamic capabilities view was first documented by Teece (1990). Dynamic capabilities view contends that possessing heterogeneous and inimitable bundle of resources does not guarantee sustainable competitive advantage for the firm but the ability of the firm to cope with the dynamic nature of resources and capabilities systems and their ever changing relationship (Grobler, 2007). The theory extends the resource based view to explain firm's sustainable competitive advantage under regimes of rapidly changing environment (Teece, Pisano &Shuen, 1997; Helfat&Peteraf, 2003, Zaidi et al., 2012). Dynamic capabilities view transforms the static perspective of the resource based view to firm's long term competitive advantage in a dynamic perspective due to the changing nature of the environment (Barney, 2001).

Despite of its growing popularity in the explanation of sustainable competitive advantage for firms in regimes of rapidly changing environment, the dynamic capabilities view has not gone without criticisms.Sirmon, Hitt and Ireland (2007) challenge the dynamic capabilities view stating that firms can be able to reconfigure their internal and external resources to match with the market changes but the ability of the reconfigured resources to create value in the future can be difficult to determine due to inability of the firm to predict the future business environment. The theory is also criticised for lack of empirical research on dynamic capabilities (Newbert, 2007). Researches on the application of dynamic capabilities are heavily biased on qualitative case studies and small portions of the concept. Wang and Ahmed (2007) also contribute to criticise dynamic capabilities view arguing that quantitative empirical tests of a comprehensive model of dynamic capabilities are yet to be established.

Life Cycle Theory

Life-cycle theory explains the process of change in the organisations arguing that organisations are entities that share processes similar to those of any human's psycho social development (Van de Ven& Poole, 1995; Bayai&Ikhide, 2016). In its life cycle development, a microfinance institution passes through start up stage, growth stage and maturity stage. The life cycle theory posits that the funding sources of microfinance institutions are linked to their respective stage of development (Farrington & Abrams, 2002). The diverse changes that are taking place in the microfinance institution at different stages in its development necessitate divergent sources of funding for its operations and sustainability (Bogan, 2012). At the initial stage, the infant microfinance institution with a social mission basically depends on donor funds, soft loans and subsidies to finance its operations and provide financial service and products to the poor clients at low cost (Beg, 2016). As the institution grows more collateral and debt capital becomes available (Xiao, 2014). It is hoped that microfinance programs will depend on donors and use subsidies in their early start-up phases only, and, as scale economies and experience drive costs down, programs will eventually be able to operate without dependency on donors and subsidies. In the last stage of microfinance institution evolution, traditional equity and more commercial sources of financing become available. Transformation is a stage in the NGO microfinance institutions development where other sources of capital funding available are sought be utilized by theinstitution.

Although the life cycle theory is highly used in explaining the link between institutional development phases and growth, the theory does not entirely give reasons for microfinance institution'ssustainability because other features such as size of the microfinance institution's assets and its capital structure may be the contributing factors (Bogan et al., 2007; Bogan, 2012). The life cycle theory is also criticized for having little documented empirical evidence that link microfinance institution's growth stages with performance (Bayai et al., 2016).

Empirical Review

The recent trend of many NGO microfinance institutions transformation into regulated financial intermediaries in pursuit for financial sustainability and outreach expansion especially to the core poor has raised a huge debate among scholars in the microfinance field. Some studies which argue that transformed NGO microfinance institutions are profit driven and that there is always a trade-off between microfinance profitability and the ability of the microfinance to expand outreach, a phenomenon termed as mission drift (Hishigsuren, 2007; Hartarska&Nadolnyak, 2007; Christen & Drake, 2002; Copestake, Dawson, Fanning, McKay & Wright-Revolledo, 2005). Quayes (2012) studied the relationship between depth of outreach and the pursuit for financial sustainability of 702 microfinance institutions operating in 83 countries. The author found that microfinance institutions that were committed to lending to the very poor have had to gradually decrease their depth of outreach.Olivares-Polanco (2005) employed ordinary least squares regression and data from 28 microfinance institutions in Latin America for the years 1999-2001 to study the effects of commercializing microfinance institution measured by profitability, competition and regulation on depth of outreach measured by loan size. The author found that increased focus on profitability increases loan size of the microfinance institution which confirms existence of a trade-off between financial sustainability and depth of outreach performance in the transformed microfinance institutions. In his study of the impact of profitability on depth of outreach in microfinance institutions, Kar (2013) found an extent of mission drift suggested by a positive significant association between microfinance institutions size and average loan amount.Hoque et al. (2011) studied transformation and changes in capital structure of 24 microfinance institutions from Central and South America, Africa, Eastern Europe, and Asia. The authors found out that transformation of microfinance institutions lowers outreach performance due to high interest rates charged to cover for increased costs of operations.

Other studies have found that the pursuit for financial sustainability does not reduce the outreach of the microfinance institution. Tchakoute-Tchuigoua (2010) used a sample of 202 microfinance institutions between the period of 2001 and 2005 to study the relationship between commercialization and performance of microfinance institutions and found that commercialization does not affect the social mission. Fernando (2004) studied the success of transformed microfinance institutions and pointed out that most of the transformed financial institutions had achieved encouraging results. The author explains that the transformed organisations have managed to achieve institutional sustainability and improve outreach to the poor. But Hishigsuren (2007) and Campion and White (2001) challenge the findings of Fernando (2004) arguing that little evidence is available to demonstrate the benefits of transforming microfinance institutions with confidence. Using annual data that spans from 1996 to 2010, Louis et al. (2013) investigated the impact of increased focus on profitabilityon 456 MFIs from 70 countries. The authors found that microfinance institutions that aim for profit are able to expand the outreach performance by increasing the number of clients but have lower depth of outreach noted by the reduction in the percent of women clients in the loan portfolio.

Zerai and Rani (2012) studied the possibility of a trade-off between depth of outreach and financial sustainability and argued that the presence of a trade-off in microfinance institutions that aim for financial sustainability was not supported by cases and empirical evidence. Hermes and Lensink (2007) assert that the there is no systematic empirical analyses on the nature and determinants of the trade-off between financial sustainability and outreach in microfinance programmes. Wagenaar (2012) states thatNGO microfinance institutions transformation aims to enhance financial sustainability and expand outreach performance but the ability for these institutions to maximise both goals remains unclear. In a study of 47 microfinance institutions from East Africa for four years, Kipesha and Zhang (2013) used Welfarist approach and found that microfinance institutions that focus on financial sustainability perform poorly on social mission. However, under the Institutionist approach, the authors found that outreach to the poor positivelyaffects financial sustainability and profit measures and concluded that the presence of trade-offs between financial and social performance in microfinance institutions depended on the variables and specified model used in the analysis

Gashayie et al. (2014) studied the microfinance institutions in Ethiopia to investigate the association between financial sustainability and outreach. The authors found out that there was no statistically significant relationship between financial sustainability and outreach. Zerai and Rani (2012) used correlation matrix in a study to examine existence of a trade-off between outreach and financial sustainability using 85 microfinance institutions in India. The author found a weak relationship between depth of outreach and financial sustainability and also found a weak correlation between number of women borrowers and operational sustainability. Some of

the transformed microfinance institutions are still under transition between NGO microfinance institutions and formal financial institutions at operational, organizational and financial level and therefore concluding that transformation has positive results for these institutions could be misleading (Hishigsuren, 2007).

III. METHODOLOGY

Empirical Framework

The study employed instrumental variablesestimation method to investigate whether the pursuit for financial sustainability leads to a trade-off between financial and outreach performance in the transformed NGO microfinance institutions in Kenya. Specifically, the study was set to investigate whether or not there is a positive or negative link between the pursuit for financial performance and the ability of the microfinance institution to expand its outreach performance. A negative link indicated incompatibility between financial and outreach performance i.e. the motivation for financial performance involves additional financial costs which entails poor outreach performance for the microfinance institution since the poor will not be able to afford. A positive link suggested a compatibility between financial and outreach performance i.e. the pursuit for financial performance does not compromise the outreach to poor clients in the transformed NGO microfinance institution (Huq et al., 2017). The study used a census survey whereby, purposively, each and every NGO microfinance institution transformed into regulated financial intermediary during the study period (from the year 1997 to 2015) was included in the study population. By June, 2015 the banking sector in Kenya had only four (4) microfinance banks (i.e. Faulu Microfinance Bank Ltd, Kenya Women Microfinance Bank Ltd, SMEP Microfinance Bank Ltd and Uwezo Microfinance Bank Ltd) and two (2) commercial banks (i.e. Sidian Bank and Jamii Bora Bank) that were transformed from NGO microfinance institutions. Microfinance Information Exchange (Mix) Market database was used to get secondary data on the selected indicators of financial and outreach performance for the microfinance institutions. Furthermore, websites of the surveyed institutions were also visited to access published audited financial and income statements in order to supplement the information obtained from Mix Market database.

Before running the actual analysis, the study performed diagnosis of panel data that was used to link the indicators of financial performance with the indicators ofoutreach. The study used variance inflation factor (VIF) and tolerance values to check for multicollinearity in the indicators of outreach performance and other variables included in the model as explanatory variables. Shapiro-Wilk*W* test was deployed to determine if the collected data on the selected indicators of outreach and financial performance are well-modelled by a normal distribution or there is a departure from normality. The study used Wooldridge test to check for first-order serial correlation in the error term of the model that were designed to examine the compatibility between outreach and financial performance. The study used Fisher's test for panel unit root using an augmented Dickey-Fuller (ADF) test to check for existence of unit root in the estimated models.

To avoid the endogeneity problem in the models that was estimated to establish the compatibility between financial and outreach performance, this study used Two-Stage Least Squares (2SLS) of the instrumental variables estimator (Greene, 2012; Schmidheiny, 2012; Wooldridge, 2014). Two simultaneous equations were estimated. The first simultaneous equation was for financial performance measured by operational self-sufficiency where average loan balance per borrower was treated as an endogenous variable and cost per borrower was treated as an instrument. The second simultaneous equation was for outreach performance measured by average loan balance per borrower where operational self-sufficiency was treated as an endogenous variable and operating expense ratio was treated as an instrument. Standard partial *F* statistic test and *r*-squared for the joint significance of the coefficients of the instrumentsused in the first stage regression(Stock, Wright &Yogo, 2002; Cameron & Trivedi, 2005) was used to check for the relevance of the cost per borrower and operating expense ratio. The standard partial *F* statistic test was also preferred to check for the validity of the instruments because the study used a single endogenous regressor (Stock &Yogo, 2003; Awaworyi et al., 2014).

Furthermore, the study performed an over-identifying restrictions test (overid) to check if cost per borrower and operating expense ratio are exogenous variables, i.e. they are appropriately uncorrelated with the error term (Baum, 2006). The study performed also a test of endogeneity (endogenous) using Durbin (score)

statistics as well as Wu-Hausman statistics values to check for endogeneity of average loan balance per borrower in the first simultaneous equation and operational self-sufficiency in the second simultaneous equation. Lastly, this study applied Pagan-Hall test of heteroskedasticity for instrumental variables estimation to check whether there is heteroscedasticity problem in the consecutive error terms in the estimated instrumental variable regression models that is related to one or more indicator variables (Baum, Schaffer &Stillman, 2003).

The Models

The aim of this study was to investigate the compatibility between financial and outreach performance in the transformed NGO microfinance institutions in Kenya. The study linked financial performance measured by return on assets (ROA), return on equity (ROE) and operational self-sufficiency (OSS) with outreach performance measured by average loan balance per borrower (ALBB), number of active borrowers (NAB) and percent of female borrowers (PFB). The studytested and examined whether transformed NGO microfinance institutions with operational self-sufficiency ratio greater than 1, earn higher return on assets and higher return on equity have lower breadth or depth of outreach performance. Following the recent literature, the study applied the two-stage least squares (2sls) method of instrumental variables regression approach for panel data model with the robust option and the following two equations were estimated simultaneously:

$$Equation\ (1)\ldots\ldots lnOSS_{i,t} = \beta_0 + \beta_1 lnALBB_{i,t} + \beta_2 lnNAB_{i,t} + \beta_3 lnPFB_{i,t} + \beta_4 lnDER_{i,t} + \beta_5 lnTER_{i,t} + \beta_6 lnCPB_{i,t} + \beta_7 lnAge_{i,t} + \beta_8 lnAssets_{i,t} + \varepsilon_{i,t}$$

$$Equation\ (2)\ldots\ldots lnALBB_{i,t} = \beta_0 + \beta_1 lnOSS_{i,t} + \beta_2 lnCPB_{i,t} + \beta_3 lnAssets_{i,t} + \varepsilon_{i,t}$$

Where:

$lnOSS_{i,t}$is the dependent variable for equation (1) and standsfornatural logarithm of operationalself-sufficiency and$lnALBB_{i,t}$ is the dependent variable for equation (2) and stands for natural logarithm of average loan balance per borrower, $\beta_0$is a constant term, *lnNAB, lnPFB, lnDER, lnTER and lnCPB*are the independent variables, *lnAge*is the natural logarithm of age, $lnAssets_{i,t}$is the natural logarithm of assets, $\beta_{1\text{-}8}$ are the estimated coefficients to measure the partial effect of the independent variables and $\varepsilon_{i,t}$is the error term.

Explanation and Operationalization of the Study Variables

ROA provides an indication of the ability of microfinance institution to generate a commercially acceptable rate of return, which would enable it to access commercial financing as well as the potentiality to become a formal financial institution (Adhikary &Papachristou, 2014). ROE is an accounting ratio that measures the efficiency of a firm in generating profits from each unit of shareholder equity (Dissanayake, 2014; Rahman et al., 2014a). Positive ROA and ROE indicate that the microfinance institution is earning satisfactory profit in utilizing owner's resources (Bassem, 2012; Dissanayake, 2014). OSS is a ratio which indicates whether enough revenue (operating revenue) has been earned to cover total costs (Hartarska et al., 2007; Schäfer et al., 2011; Quayes, 2015). A microfinance institution with OSS value of 100% or more indicates full operational self-sufficiency (Bassem, 2012; Quayes, 2015).

ALBB is the best simple measure of depth of outreach to the poor clients for the microfinance institution (Schreiner, 2001; Gonzalez, 2008; Abdulai et al., 2017b). Lower values of average loan balance per borrower with shorter repayment periods indicate deeper outreach by the microfinance institution (Kar, 2013; Adhikary et al., 2014; Abdulai&Tewari, 2017a). PFB measures the institution's outreach to women. Therefore, higher percent of female borrowers indicates higher outreach performance for the microfinance institution (Hermes et al., 2011; Bassem, 2012).

Furthermore, thestudy used institutional size variable (measured by the value of total assets owned by the institution) to control for differences in the size of the microfinance institutions. It was expected, therefore, that institutional size will have a positive effect on both financial and outreach performance of the microfinance institution (Quayes, 2012). Institutional age (measured by the number of years the institution has been in operation) was also used to control for the differences in time the institutions have been in operation.

Empirical Results and Discussions

Table 1 shows the descriptive statistics of the variables used in the analysis. It can be noted that on average, the microfinance institutions are not profitable noted bythe -5.9 percent and -24.7 percent values of return on assets and return on equityrespectively. However, the microfinance institutions appear to be operationally sustainable since the reportedaverage operational self-sufficiencyvalue is 1.05.

Table 1: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	91	-.0592209	.3813839	-3.36	.0836
ROE	91	-.246844	2.593523	-24.62	.4674
OSS	81	1.05277	.2166718	.3428	1.4051
ALBB	86	761.6279	981.884	25	4251
NAB	86	60658.56	80540.78	135	413040
PFB	65	.6713354	.2160758	.3037	1
DER	92	3.490009	2.73025	.07	14.59
CPB	66	132.1818	103.2154	18	575
OER	71	.2063169	.1538916	.1037	1.2851
TER	71	.2560085	.1593499	.139	1.399

The real mean value for average loan balance per borrower of the microfinance institutions is 761.63. The number of active borrowers with the microfinance institutions is on the average of 60,659 with the percent of female borrowers forming an average of 67%. This indicates a higher depth of outreach for the microfinance institutions.

Influence of Outreach on Financial Performance

This section presents interpretation and discussion of the empirical results from the econometric analysis of the first simultaneous equation which analysed the influence of outreach performance indicators (average loan balance per borrower, number of active borrowers and percent of female borrowers) and other variables (debt to equity ratio, total expense ratio) on financial performance measured by operational self-sufficiency. Results of the econometric analysis (Table 2) exhibited a very significant Wald chi2 (6) = 52.88, Prob> chi2 = 0.0000 at the 0.05 level. Therefore, the study rejected the null hypothesis that all coefficients of the variables that are not significant individually are equal to zero and concluded that at the 0.05 level, the estimated regression model was significant at establishing the compatibility between outreach and financial performance. The R-squared value suggests that 43.35% of the variations in financial performance measured by operational self-sufficiency can be explained by the estimated regression model using the selected measures of outreach and other independent variables

Table 2: IV (2SLS) Regression: Influence of Outreach on Financial Performance

lnOSS	Coefficient	Robust Std. Err.	z	P>|z|
lnALBB	.0932484	.0388567	2.40	0.016
lnNAB	-.0328008	.0328504	-1.00	0.318
lnPFB	.1916617	.069147	2.77	0.006
lnDER	-.0057708	.0410088	-0.14	0.888
lnTER	-.4112782	.0808643	-5.09	0.000
lnAge	-.1342082	.1058737	-1.27	0.205
_cons	-.5635965	.3134942	-1.80	0.072
	Wald chi2(6)=52.88Prob chi2=0.0000R-squared=0.4335			

Average loan balance per borrower was noted to have a positive influence on operational self-sufficiency. The coefficient being positive and statistically significant at the 0.05 level. This finding revealed

that average loan balance per borrower is strongly associated with operational self-sufficiency. Results show that holding all other variables constant, when average loan balance per borrower increases by one unit, operational self-sufficiency is expected to increase by 0.0932 units. This implies that attainment of financial performance measured by operational self-sufficiency in microfinance institutions is associated with an increase in average loan balance per borrower. The pursuit for financial performance motivates the microfinance institution to reach out to wealthier clients rather than the core poor. Increased average loan balance per borrower increases the operating revenue for the microfinance institution to cover for the costs of providing financial services and products to their clients. While this evidence supports the institutionalist argument, it substantiate incompatibility of financial and outreach performance in the transformed NGO microfinance institutions because an increase in average loan balance per borrower leads the microfinance institution to serve the better-off poor clients. This result is consistent with Kipesha et al. (2013), Ngo (2012), Xu, Copestake and Peng (2016) and Abdulai et al. (2017a) but is at odds with evidence found in the study of Rahman and Mazlan (2014) and Quayes (2015).

Results indicated that number of active borrowers insignificantly influenced operational self-sufficiency. Surprisingly, the coefficient is negative and statistically insignificant at the 0.05 level. Results show that when the number of active borrowers increases by one unit, operational self-sufficiency is expected to decrease by 0.0328 units, holding all other variables constant. This finding suggests that an increase in the number of active borrowers per se does not improve the financial performance measured by operational self-sufficiency in microfinance institutions. This finding supports evidence found by Woller and Schreiner (2002) and Ahmed, Ibrahim, Said and Salleh(2016) but is in contrast with evidence found by Schäfer et al. (2011), Rahman et al. (2014), Adhikary and Papachristou (2014) and Abdulai et al. (2017b) who found a positive and significant coefficient and argued that the increase in number of borrowers increases sells which maximizes profit and consequently the financial sustainability measured by operational self-sufficiency in microfinance institutions.

Furthermore, econometric results indicated that percent of female borrowers significantly influenced operational self-sufficiency. As expected, the coefficient is positive and statistically significant at the 0.05 level. Results show that for a one unit increase in percent of female borrowers, operational self-sufficiency is expected to increase by 0.1916 units, holding all other variables constant. This implies that an increase in the percent of female borrowers improves the financial performance measured by operational self-sufficiency in microfinance institutions. This could be explained by higher repayment rate, fewer bad debts and provisions records by female clients in microfinance institutions. This finding supports the institutionalist argument and substantiate that outreach measured by percent of female borrowers is compatible with financial performance measured by operational self-sufficiency. This result affirms findings of Quayes (2012) and Adhikary et al. (2014) but differs with Awaworyi (2014) and Bassem (2012) who found a negative and insignificant coefficient.

Econometric results demonstrated also that there is a very significant influence of total expense ratio on operational self-sufficiency. This finding shows that operating costs strongly influence operational self-sufficiency in microfinance institutions. As expected, the coefficient is negative and statistically significant at the 0.05 level. Results show that for one unit increase in total expense ratio, operational self-sufficiency is expected to decrease by 0.4113 units, holding all other variables constant. This finding suggests that an increase in the proportion of total expenses has a negative consequence to the financial performance measured by operational self-sufficiency in microfinance institutions. In other words, this implies that the ability of efficient management to offer loans at the minimum costs possible will enable the microfinance institutions to earn more profits and become operationally self-sustainable. This result is in harmony with Quayes (2012) and Quayes (2015).

Results revealed that institutional age has insignificant influence on operational self-sufficiency. The coefficient is negative and statistically insignificant at the 0.05 level. Results show that a one unit increase in institutional age is expected to decrease financial performance measured by operational self-sufficiency by 0.1342 units, holding all other variables constant. This finding suggests that institutional age does not improve financial performance measured by operational self-sufficiency in microfinance institutions. Yet, the

insignificant coefficient in this model implies that operational self-sufficiency in microfinance institutions is not compromised by institutional age. This result is in line with evidence found in the study of Rahman et al. (2014) but differs with Bassem (2012), Vanroose et al. (2013) and Adhikary et al. (2014).

Influence of Financial Performance on Outreach

In this section the study presents the interpretation and discussion of the empirical results from the econometric analysis of the second simultaneous equation which analysed the influence of financial performance measured by operational self-sufficiency and other variable (cost per borrower) on outreach performance measured by average loan balance per borrower.

Table 3: IV (2SLS) Regression: Influence of Financial PerformanceonOutreach

lnALBB	Coefficient	Robust Std. Err.	z	P>|z|
lnOSS	3.409587	.8078517	4.22	0.000
lnCPB	.957104	.1125352	8.50	0.000
lnAssets	.0891685	.0556569	1.60	0.109
_cons	-.2362151	.7756879	-0.30	0.761
	Wald chi2(3)=185.36Prob>chi2=0.0000R-squared=0.5582			

Results of the econometric analysis (Table 3) demonstrated a very significant Wald chi2 (3) = 185.36, Prob> chi2 = 0.0000 at the 0.05 level. Therefore, the study rejected the null hypothesis that all coefficients of the variables that are not significant individually are equal to zero and concluded that at the 0.05 level, the estimated regression model was significant at establishing the compatibility between financial performance and outreach. The R-squared value suggests that 55.82% of the variations in outreach performance measured by average loan balance per borrower can be explained by the estimated regression model using the selected measures of financial performance and other independent variables.

Economic results show that operational self-sufficiency significantly affected average loan balance per borrower. Similar to the first case, the coefficient is positive and statistically significant at the 0.05 level. This implies that average loan balance per borrower strongly influence operational self-sufficiency in microfinance institutions. Results show that holding all other variables constant, a one unit increase in financial performance measured by operational self-sufficiency is expected to increase average loan balance per borrower by 3.4096 units. This finding suggests that the pressure for financial sustainability (OSS) in microfinance institutions overshadow the outreach performance noted by the increase in average loan balance. In other words, this implies that a microfinance institution with better operational self-sufficiency performs poorly in outreach measured by average loan balance per borrower. This substantiate incompatibility of financial and outreach performance in microfinance institutions found by Kipesha et al. (2013) and Adhikary et al. (2014). Moreover, Abdulai et al. (2017a) and Abdulai et al. (2017b) found a positive but insignificant coefficient suggesting that operational self-sufficiency does not drive outreach in microfinance institutions in the Sub-Saharan Africa.

Cost per borrower was noted to significantly affect average loan balance per borrower. As expected, the coefficient is positive and statistically significant at the 0.05 level. Results show that when cost per borrower increases by one unit, average loan balance per borrower is expected to increase by 0.9571 units, holding all other variables constant. This finding suggests that expensive loans (observed by higher cost per borrower) have a negative consequence to the microfinance institution's efforts of expanding outreach (measured by average loan balance per borrower) performance to the core poor clients. This finding affirms the argument of Welfarist approach and substantiate the incompatibility of financial and outreach performance where the transformed microfinance institutions serve the relatively better-off poor clients. This result confirms evidence found in the study of Quayes (2012) and Kipesha et al. (2013).

Regression results indicated that institutional size insignificantly affect average loan balance per borrower. As expected, the coefficient is positive but statistically insignificant at the 0.05 level. The insignificant coefficient in this model implies that institutional size alone does not have a strong influence on outreach performance. Results show that when institutional size increases by one unit, average loan balance per borrower is expected to increase by 0.0892 units, holding all other variables constant. This suggests that larger microfinance institutions do not have better outreach performance than small ones. This result agrees with Cull et al. (2007), Kar (2013) and Costa (2017) who found a significant coefficient.

Conclusion and Recommendations

This study has highlighted the concern for mission drift in the transformed NGO microfinance institutions in Kenya. Empirical evidence developed by the econometric analysis suggests that outreach and financial performance in microfinance institutions influence each other. Different indicators of outreach have shown different effects on financial performance measured by operational self-sufficiency, leading to mixed evidence about mission drift in the transformed microfinance institutions. In the first simultaneous equation, results have shown that an increase in average loan balance per borrower in pursuit of operational self-sufficiency goal significantly leads to a reduction in outreach performance (ALBB) as the microfinance institution will be serving the better-off poor. Consistent results were obtained when operational self-sufficiency was treated as a regressor in the second simultaneous equation. This evidence lead the study to conclude that there is a mission drift in the transformed microfinance institutions with respect to serving the poorest of the poor (ALBB). However, with regard to percent of female borrowers, the study could not find empirical evidence of mission drift. This is so because an increase in outreach to female borrowers has shown to enhance operational self-sufficiency in the transformed NGO microfinance institutions in Kenya.

This implies that there is a definite need for greater and continued efforts by the management of microfinance institutions to ensure that they design a wide variety of financial services and products that respond to the clients' demands from different income levels. Moreover, efforts are needed to introduce cost reduction strategies that ensure financial performance especially operational self-sufficiency while expanding outreach to more poor clients at the same time. Furthermore, there is a need for policy makers to formulate commercial approach mechanisms of providing financial services and products to the excluded segment of the society without compromising the microfinance promise in the transformed NGO microfinance institutions in Kenya.

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