

# **THE EFFECTS OF DEPOSIT TO ASSET RATIO ON THE FINANCIAL SUSTAINABILITY OF DEPOSIT TAKING MICRO FINANCE INSTITUTIONS IN KENYA**

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## **Abstract**

*Explanatory research design was used for the purpose of this study. The target population was the 9 registered Micro Finance Banks regulated by the Central bank of Kenya where a populous sample was selected for the purposes of the study. The study utilized cross sectional data set up to draw inferences on the study using SPSS statistical package. The study found deposit to asset ratio to be statistically significant in determining the financial sustainability of MFIs ( $t$  values=2.374,  $p$  values=0.0005). Therefore this study calls for the development of appropriate regulatory policies that enable MFIs to have access to cheaper long term debt to improve their profitability. The study also calls for listing of the MFIs to list on the GEM segment of the capital markets.*

*Keywords: Deposit, Asset Ratio, Financial Sustainability and Micro Finance Institutions*

## INTRODUCTION

According to the Consultative Group to Assist the Poor (CGAP), (2013), Microfinance is the provision of basic financial services to impoverished clients who otherwise lack access to financial institutions. The main activity of microfinance is microcredit, which refers to the extension of very small, uncollateralized loans; usually of less than \$100 (Micro Banking Bulletin, 2006). Microfinance institutions are institutions that offer microfinance services to the poor. MFIs can operate as Non-Governmental Organizations (NGOs), credit unions, non-bank financial intermediaries or commercial banks. To cushion themselves from perceived risks due to the target client's lack of collateral as a guarantee against default, MFIs are known to charge very high (30% - 60%) nominal interest rates (Montgomery & Morduch, 2005). According to Aghion & Morduch (2005), over 67 million households are served by microfinance programs globally.

On the other hand, financial sustainability is defined as the development of products and delivery systems that meet client needs, at prices that cover all costs of providing these financial services independent of external subsidies (Rosengard, 2001). Muriu (2011) noted that a profitable microfinance industry is vital in maintaining the stability of the micro banking system. Accordingly low profitability weakens the capacity of microfinance institutions to absorb negative shocks, which subsequently affect solvency. Profitability which is the best proxy measurement for financial sustainability, reflects how MFIs are run given the environment in which they operate, which should epitomize efficiency, risk management capabilities, their competitive strategies, quality of their management and levels of capitalization. This study investigated the effects of capital structure on MFI sustainability. The study was motivated by the events of the 2008 global financial meltdown where most financial institutions had to rely on government bailouts in order to remain sustainable in their foreseeable future. Bogan (2009) observed that the capital structure of lending institutions has become an increasingly prominent issue in the world of finance, particularly in the wake of the 2008 banking collapse and the ensuing government bailouts and institutional restructuring efforts.

According to Modigliani & Miller (1958), capital structure refers to the way a corporation finances its assets through some combination of equity, debt or hybrid securities. A firm's capital structure is then the composition or 'structure' of its liabilities. The capital structure theorem by Modigliani & Miller (1958) stated that, in a perfect market, how a firm is financed is irrelevant to its value. This result provided the base with which to examine real world reasons why capital structure is relevant, that is, a company's value is affected by the capital structure it employs. Some of the reasons Titman and Wessels (1988) include bankruptcy costs, agency costs, taxes, and information asymmetry. The question of the optimal capital structure for lending

institutions, particularly ones with access to grant funding, is an open and weighty question (Bogan, 2009). The financing choice by a firm involves a tradeoff between risk and return to maximize shareholder wealth (see Berger & Bonaccorsi, 2006). The objective of an optimal financing choice for any firm is therefore to have a mix of debt, preferred stock, and common equity that will maximize shareholders' wealth. A higher debt ratio on one hand can enhance the rate of return on equity capital during good economic times. On the contrary, a higher debt ratio increases the riskiness of the firm's earnings stream (Muriu, 2011). Moreover, the presence of debt may exert pressure on MFI management to ensure profitability in order to honour such debt obligations. Although debt as a homogeneous source of MFI funds is a powerful theoretical construct and a useful first step, this study goes beyond the leverage decision and will investigate other dimensions of MFIs' funding choice including MFI characteristics such as the age of institutions.

### **Statement of the Problem**

Following the 2008 financial crisis that affected most financial institutions across the world, the issues of capital structure by lending institutions have become increasingly important. Studies on the impact of capital structure on firm performance have in most cases been carried out in developed economies on large and listed firms. Although several research questions remain unresolved in the banking industry, due to banks being informational opaque, (Berger & Bonaccorsi, 2006), it similarly remains so for the microfinance industry where information asymmetry is also severe. Since the seminal contribution by Modigliani and Miller (1958), several subsequent studies show that a firm with high leverage tends to have a capital structure that translates into a better performance. The Modigliani-Miller (MM) theorem asserts to the contrary. The basic MM principles are applicable to lending institutions, but only after accounting for the fundamental differences on how lenders and corporations operate (Cebenoyan & Strahan, 2004). This has motivated researchers to examine the impact of capital structure on performance; though the main focus has been on the non-financial firms. The main goal of this study was therefore to investigate the role that individual funding instruments play in influencing MFI financial sustainability in Kenya where no other similar empirical studies have been recorded. Bogan, (2009) suggested that MFIs follow a lifecycle in their capital structure from purely donor reliant funded institutions to deposit taking self-reliant institutions and hence a complete transformation in their capital structure. According to the mix market report (2010), newly transformed institutions in Kenya suffered losses which were largely attributed to capital structure changes. This study conducted an empirical analysis

on the effects of deposit to asset ratio on the financial sustainability of deposit taking micro finance institutions in Kenya.

## LITERATURE REVIEW

Muriu (2011) broadly defines sustainability as the long-term continuation of the Microfinance program after the project activities have been discontinued. It entails that appropriate systems and processes have been put in place that will enable the Microfinance services to be available on a continuous basis and the clients continue to benefit from these services in a routine manner. This also would mean that the program would meet the needs of the members through resources raised on their own strength, either from among themselves or from external sources. Though sustainability does get understood immediately in the financial terms or the resource terms, it actually has broader dimensions, of which financial sustainability is only one major dimension. Accordingly Muriu (2011) defines financial sustainability as the ability of MFIs to cover all its present costs and the costs incurred in growth, if it expands operations. Muriu (2011) further states that the MFIs would be able to meet their operating costs, financial costs adjusted for inflation and costs incurred in growth.

From bankers' perspective, a microfinance institution is said to have reached sustainability when the operating income from the loan is sufficient to cover all the operating costs (Sharma & Nepal, 1997). This definition adopts the bankers' perspective and sticks to 'accounting approach' of sustainability. However, Shah (1999) adopts for an 'integrated approach' in defining the term sustainability as the 'accounting approach' to sustainability that takes into account the financial aspect of the institution is too narrow for him. For Shah (1999), the concept of sustainability includes, amongst other criteria, - obtaining funds at market rate and mobilization of local resources. Therefore, his performance assessment criteria for the financial viability of any microfinance related financial institution are: repayment rate, operating cost ratio, market interest rates, portfolio quality, and 'demand driven' rural credit system in which farmers themselves demand the loans for their project. From banker's perspective, sustainability of microfinance institution includes both financial viability and institutional sustainability (self-sufficiency) of the lending institution (Sharma and Nepal, 1997). The frames of reference in banker's definitions are therefore, more financial, administrative and institution focused. Small farmer communities are also expected to embrace these definitions. However, this study will adopt Rosengard (2001) definition of financial sustainability who defined it as the development of products and delivery systems that meet client needs, at prices that cover all costs of providing these financial services, [independent of external subsidies].

According to Kwan (2000), deposits to asset ratio measures the magnitude of assets being funded by public deposits. He further stated that the Deposit-to-Asset Ratio tests whether banks that have more deposits incur additional operating costs to attract deposits. In the context of MFIs, deposits to assets ratio measures the relative portion of the MFI's total assets that is funded by deposits and gives an informed analysis of the role of deposits as a funding source (Mix Market, 2011). According to Helms (2007), deposits are viewed as cheaper alternatives to funding and as such deposits are deemed to bring down the cost of operations in the process increasing profitability and in effect the MFIs sustainability. Deposit to assets ratio will only be relevant to MFIs that mobilize deposits in this study. According to Muriu (2011), the lower the ratio, the greater is the MFI's capability to fund its assets base from deposits. A proportionally larger deposit base as a percentage of total assets will typically lead to an overall lower cost of funds, assuming that the deposits program is cost efficient in its operational and financial expense of deposits ratios. The higher the ratio, the more the MFI must rely on external funding, which is often a more costly source of funding than deposits. MFIs may also effectively use local depositors as in the case of Irish loan funds (Hollis, & Sweetman, 2007) not just for funding, but also because of the important discipline that depositors can impose on expenses management—which has an impact on profitability and financial sustainability.

Muriu (2011) found a positive significant relationship between deposits to assets ratio and MFI sustainability. He attributed these results to the fact that a proportionally larger deposit base will typically lead to an overall lower cost of funds for the MFIs with an implication of improved profitability and consequently financial sustainability —assuming that the deposits program is cost efficient. His findings were consistent with Cull, et al (2011), that MFIs should therefore broaden their services toward offering (more) deposits. This is important as it would also broaden the lending capacity of MFIs. These results are however contrary to García-Herrero, (2009) who do not find significant results in the Chinese banking industry. However, Bogan (2009) found a negative relationship between deposits to assets ratio and financial sustainability. This could have been attributed to the lack of experience in deposit taking and the high costs associated with transformation.

## RESEARCH METHODOLOGY

This study adopted causal relationship research design in trying to investigate the effect of capital structure on financial sustainability in Kenyan Deposit Taking Micro Finance Institutions. All the deposit taking Micro Finance Banks regulated by the Central Bank of Kenya (CBK) formed the target population for this study. The study utilized population sampling technique

where the nine microfinance Banks were studied. This technique was highly dependable since out of the 52 microfinances in Kenya, only 9 collect deposits and hence the study utilized the Population sampling technique since all the 9 microfinances were studied. The study utilized secondary data with a data collection schedule being used to gather the necessary data. The data set was obtained from the Central Bank of Kenya bank Supervision department reports for 2012 and 2013. The study analysis was undertaken using the panel data regression estimation , generalized methods moments, GMM estimation technique utilized in panel estimation that incorporates dynamics to take into consideration persistence in the behavior of dependent variables over time.

## ANALYSIS & FINDINGS

Table 1: Ratio Analysis

MFB	Loans to	Debt to	Capital	Deposit	Return on
FAULU KENYA	70.17%	261.90%	6.42%	57.89%	1.90%
KWFT	66.80%	172.42%	13.32%	25.08%	2.60%
SMEP	72.25%	78.37%	26.18%	50.32%	1.10%
REMU	47.77%	12.12%	39.17%	51.63%	-2.40%
RAFIKI	50.72%	161.80%	12.67%	38.38%	0.40%
UWEZO	68.22%	7.46%	62.62%	22.43%	-2.80%
CENTURY	50.00%	0.00%	54.88%	33.54%	-23.17%
SUMAC	66.45%	4.37%	59.61%	32.25%	-5.21%
U & I	45.00%	0.00%	56.25%	42.50%	2.50%

Table 1 shows the analyzed ratios which were regressed to generate the coefficients showing the relationship between the dependent and independent variables. These ratios were analyzed after calculating the average ROA and the averages of the regression variables. From the above ratio analysis we proceed to generate the regression coefficients and explain their meaning in relation to the problem we are investigating as laid down in our study objectives.

The study hypothesized that deposits to asset ratio had no effect on the deposit taking microfinance institutions financial sustainability. The study rejected this null hypothesis at 95% confidence level implying that deposits to asset ratio had a significant relationship (t values = 2.374 and P values = 0.00636) with MFIs financial sustainability. The positive coefficient of 0.362 revealed that the deposit to asset ratio had a positive and significant effect on the MFIs financial sustainability. This meant that a one percentage change in the deposit to asset ratio led to a 0.362 percentage change in the return on assets.

## CONCLUSION AND RECOMMENDATIONS

A proportionally higher deposit as a percentage of total assets is associated with improved financial sustainability, assuming that the deposits program is cost efficient. From this perspective, voluntary deposit mobilization may help MFIs achieve independence from donors and investors, which is particularly important in periods of liquidity constraints. Savings mobilization may therefore lead to greater financial sustainability since it provides MFIs with inexpensive and sustainable source of funds for lending. This perhaps explains why it is an indispensable element for well-performing MFIs. Deposits may however require widespread branching and other expenses. Higher deposit to asset ratio has a significant contribution to MFI financial sustainability. MFIs should therefore devise strategies to win the confidence of depositors if they are to enhance their financial performance. MFIs should therefore diversify their saving products to capture a wider client base. This will increase their deposit mobilization chances and hence contribute the firm's bottom line of their listing requirements in the capital market.

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