Influence of Financial Leverage on Profitability of Micro Finance Banks In Kakamega County, Kenya

Agripina Butsili¹, Dr. Julius Miroga ²

¹ Master Student, Jomo Kenyatta University of Agriculture and Technology, Kenya
² Senior Lecturer: Department of Economics, Finance and Accounting College of Human Resource Development Jomo Kenyatta University of Agriculture and Technology, Kenya

Corresponding Author: Agripina Butsili

Abstract: Financial leverage is the ratio of debt and equity, which states the relationship between borrowed funds and owner’s funds in the capital structure of the firm. Studies from literature review confirms that firms that rely on only equity are referred to as unlevered firms while those that rely on both debt and equity are referred to as levered firms. Specific objective of the study was to determine the effect of debt equity on profitability of Micro Finance banks in Kakamega County. The research design used descriptive research design and the target population of the study consists of top and middle level managers of 4 microfinance banks in Kakamega County represented by 55 employees. The study was done on a census scale since data was collected using questionnaires. Data was then be analyzed using a regression analysis model with the help of SPSS version 21. Debt equity influence profitability of microfinance bank positively and it significantly accounted up to 88.6% change in profitability. The study recommended that managers need also to accompany improved loan averages with expanded services and effective follow-ups of loan recoveries as indicated by the existence of the relationship between financial leverage and profitability.

Keywords: Debt Equity Ratio, Profitability, Financial Leverage, Microfinance Bank, Kakamega County

I. Introduction

Chadha and Sharma (2015) define financial leverage as “the ratio of debt and equity, which states the relationship between borrowed funds and owner’s funds in the capital structure of the firm”. They define that firms that rely on only equity are referred to as unlevered firms while those that rely on both debt and equity are referred to as levered firms. Financial leverage is a measure of how much firms use equity and debt to finance their assets (Enekwe, Agu, & Eziedo, 2014). Financial leverage has also been defined as the degree to which a company uses fixed income securities such as debt and preferred equity (Rajkumar, 2014). He adds that the higher the financial leverage, the higher the interest payments leading to low earnings per share.

Previous studies about whether there is a relationship between financial leverage and the financial performance of a firm have been inconclusive. In his study, Rajkumar (2014) concluded that though there was a negative relationship between financial leverage and the financial performance of a firm, 54.8% of a firm’s financial performance was affected by its financial leverage, attributing the remaining 45.2% to other factors. In their study, Innocent, (2014), concluded that the debt to equity ratio has a negative relationship with the firm’s return on assets while the interest coverage ratio of financial leverage has a positive relationship with the return on assets. Salim and Yadav (2012) concluded that total debt has a weak positive relationship with a firm’s financial performance measured by earnings per share.

The global financial crisis affected the capital structures of a number of firms globally, especially the highly levered firms despite the difference in the magnitude of the impact due to differences in financial market development and other factors (Zarebski & Dimovski, 2012). They explain that during the economic boom, most firms were highly liquid, leading to high rates of lending, refinancing and underwriting by financial institutions. This was halted by the real estate market crash in the US which led to the loss of value of many assets, leading to the highly levered firms to default their debts (Zarebski & Dimovski, 2012).

For large Malaysian construction companies, return on capital has a strong positive relationship with financial leverage measured by the debt to equity ratio while for small construction companies; financial leverage has a negative impact on the companies’ profitability (San & Heng, 2011). Ramachandran and Candasamy (2011) found that the use of debt had no impact on the ROA of low income IT firms in India while debt financing had a negative on the profitability of high income IT firms in India. Chadha and Sharma (2015) found that higher debt results into low ROE for shareholders. Mireku, Mensah and Ogoe (2014) found that a higher percentage of Ghanaian companies preferred short-term debt to long-term debt as a source of funds to
finance their assets and operations. They attribute this to the inaccessibility to long term debt due to the high lending rates offered by banks and the immaturity of the Ghanaian capital market. Ojo (2012) shows that financial leverage has a significant negative effect on the performance of firms in Nigeria. He however adds that firms are likely to opt for more debt financing in case of poor performance.

Some studies conducted in Asian countries show that debt financing has a negative impact on the performance of the firm (Pathak, 2011; Salim & Yadav, 2012). Jensen and Meckling (1976) argue that financial leverage affects the financial performance of the firm by restricting managers’ efficiency to act in the interests of the shareholders, hence increasing agency costs. However, Khan (2011), conducted a study in India, which indicated no significant impact of financial leverage on the level of efficiency. For large Malaysian construction companies, return on capital has a strong positive relationship with financial leverage measured by the debt to equity ratio while for small construction companies financial leverage has a negative impact on the company’s profitability (San & Heng, 2011). Ramachandran and Candasamy (2011) found that the use of debt had no impact on the ROA of low income IT firms in India while debt financing had a negative on the profitability of high income IT firms in India.

In Kenya, Yegon, Cheruiyot, and Cheruiyot (2014), show that there is a negative relationship between long term debt and profitability and a positive relationship between short term debt and firm profitability. They attribute this to the fact that short term debt is cheaper than long term debt hence, increasing short term debt will lead to increased profitability. However, overall debt has no significant impact on the firm’s performance due the distinctive features of both short term and long term debt (Yegon et al., 2014). All in all, a firm’s financial leverage choices are explained by a number of theories (Mule & Mukras, 2015). Mueni and Muturi (2015) found that there was a significant negative relationship between financial leverage and the performance of sampled NSE listed firms. This is in support of the findings of (Mule & Mukras, 2015). However, Maniagi, Mwalati, Ondieki, Musiega and Ruto (2013), reported both positive and negative relationships between financial leverage and firm performance.

What is Microfinance? Business Daily - 4th April 2013 allocated to one of the members at a time. With advent of money and commercialization, these transactions were replaced with money such as naira and pounds. In the less developed countries, development of MFIs accelerated in the period of decolonization where many states originated. This is because there was a vacancy for the financial provision for the poor in these states (K. Srnec, 2009). Over the period of 1980-1990s MFIs began to develop and found sustaining models of lending to the poor: non-governmental organization (NGOs), non-bank financial institutions (NBFI), rural banks of nationalized banks and village banks began to develop (Elgar, 2008). In Kenya, Microfinance sector began in the late 1960s with NGOs setting up pilot programs providing donor funded credit services. Some of the organizations have evolved over time to become commercialized, self-sustaining and hugely profitable institutions with over 100,000 citizens (Njoroge, 2008). These MFIs are regulated by the Central Bank of Kenya. There are twelve licensed MFIs in Kenya. These include Choice Microfinance Bank, Faulu, Kenya Women Microfinance bank limited, SMEP, REMU, Rafiki, Uwezo, Century, Sumac, U&I, Duraj.

1.1 Statement of the Problem

One of the significant roles of a financial manager of a firm is the formulation of financial policies that are intended to maximize the profitability of the firm, among them being the financial leverage decision (Mueni & Muturi, 2015). They add that these decisions have an effect the company’s retained earnings, which in turn influences the company’s future growth, investment potential and working capital. Therefore, it is important for firms in developing countries to find optimum levels of their capital structure so as to fund their activities and grow enough to generate income and employment opportunities (Wachilonga, 2013). However, due a limited availability of company resources, finance managers have to work hard to ensure proper working capital management so as to avoid the opportunity cost of foregoing the resources held in current assets, hence lowering the firm’s returns (Mueni & Muturi, 2015).

Throughout the world, performance of microfinance institutions has been one of the issues that have recently captured the attention of many researchers. The Performance measure of MFIs has been a means for managing MFIs and a necessity for sustainability (Kheder, Mustafa, Saat, 2013). Several studies have been conducted to determine factors affecting the performance of microfinance institutions using large and well developed MFIs in various countries. According to Cull, (2007), some of the determinants are found to be significant in one economy or applicable to a set of MFIs, some are not significant. For the purpose of this study we reviewed empirical literature based on the influence of deposit portfolio, loan portfolio and dividend policy. The microfinance paradigms focus on reduction of poverty through improving access to finance and financial services. However, the positive impacts on microfinance institutions and the welfare of the poor can only be sustained if the institutions can achieve good profitability index.

This decision is particularly crucial given the effect it has on the value of the firm. The financial leverage of a firm is a specific mix of debt and equity the firm uses to finance its operations (Abor, 2005). A
firm can use different mixes of debts, equity or other financial arrangements. This interplay of debt and equity and corporate performance has been the subject of a number of studies. However, such empirical studies on the effect of financial leverage on profitability have tended to concentrate on large firms (Majumdar & Chhibber, 1999; Abor, 2005).

1.2 Research Objective
The specific objective of the study was to determine the effect of debt equity on profitability of Micro Finance banks in Kakamega County

1.3 Research Hypothesis
H₀ debt equity has no significant effect on profitability of Microfinance banks in Kakamega County

II. Literature Review

2. 1 Trade off Theory
The trade-off theory claims that companies should aim to find the optimal level of financial leverage. With optimal level of financial leverage, it means when gains and costs of financial leverage is balanced (Myers, 1984). This implies that there should be a relationship between financial leverage and financial performance, where the financial leverage affect financial performance (Brealey, Myers & Allen, 2017). The advantages of financial leverage are according to the theory related to tax advantage of debt because of the deductibility of interest expenses, but also the increased cash flows (Modigliani & Miller, 1963; Kraus & Litzenberger, 1973). The tax advantage of debt indicates that larger companies measured by total assets should use more financial Leverage than small companies, since they have more capital to protect (Ebaid, 2009).

According to Kraus and Litzenberger (1973) could a disadvantage of financial leverage be the potential costs associated to bankruptcy. There are two types of cost that is associated to bankruptcy according to the trade-off theory. The direct cost refers to legal advice, credit cost and reconstruction, while costs like loss of employees is referred to as indirect costs in the trade-off theory (Murray & Vidhan, 2008; Brealey, Myers & Allen, 2017). According to the trade-off theory does the margin benefit of financial leverage decrease, unlike the disadvantages of the financial leverage-curve which constantly increases when the financial leverage increases Myers (1984) is reasoning about if there is the same optimal level of financial leverage for every company, but the companies' management is not able to find it, or if the optimal level of financial leverage differ from each company.

In this reasoning, Myers introduces a cost of adjustment. These factors could according to the trade-off theory be the reasons why it is more common that large companies use financial leverage than small companies (Brealey et al., 2017). This cost of adjustment refer to the costs associated to changing level of financial leverage depending on the business situation and what the company needs for the moment. It could be questioned, if there is an optimal level of financial leverage, why do not companies use financial leverage in the same way and always have this level of financial leverage. The trade-off theory can with some success explain factors that affect how companies behave when it comes to financial leverage. It can be how risk averts the decision makers are, but also if the company’s assets contain a lot of intangible assets or if the company’s return differ a lot from year to year. High-tech companies often use a relatively low financial leverage, unlike industries like airlines which borrow a lot of capital because their assets are relatively safe and tangible (Brealey et al., 2017).

Equity financing is the financing source a company prefers the least according to the pecking order theory (Edim, Atseye & Eke, 2014). This financing source is only used when the debt capacity is reached and there is no other way of financing the operating business or investment. When a company uses this option, the decision makers in the company believe the market valuate the company too high because of asymmetric information between the company and external investors (Brealey et al., 2017). Several approaches to raise funds to achieve the desired capital mix with the most common sources being retained earnings of the business, debt and equity (Singh & Suchard, 2013). Mostafa and Boregowda (2014) classify the sources of capital as being either internal sources or external sources. Internal financing is that from the company’s retained earnings whereas external financing is that from the issue of equity or debt.

Financial leverage decisions are of strategic importance to any organization because they define the financial stability of the organization. Sheikh and Wang (2010) recognize the importance of capital structure decisions as pivotal in helping the stewardship of a business entity in choosing between financing alternatives at an optimum cost that results in the maximization of the total value of the firm. Singh and Suchard (2013) found that various strategies can be used by an organization to raise capital with the most basic and important sources being retained earnings, equity and debt.
2.2 Debt to Equity

Equity financing is the financing source a company prefers the least according to the pecking order theory (Edim et al., 2014). This financing source is only used when the debt capacity is reached and there is no other way of financing the operating business or investment. When a company uses this option, the decision makers in the company believe the market valuate the company too high because of asymmetric information between the company and external investors (Brealey et al., 2017). Several approaches to raise funds to achieve the desired capital mix with the most common sources being retained earnings of the business, debt and equity (Singh & Suchard, 2013). Mostafa and Boregowda (2014) classify the sources of capital as being either internal sources or external sources. Internal financing is that from the company’s retained earnings whereas external financing is that from the issue of equity or debt.

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2.3 Firm Profitability

Penman (2007) defines profitability as the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit. The assessment of profitability is usually done through the Return on Assets (ROA) which equals to Net Income divided by Total Assets and ROE (Return on Equity) that is equal to Net Income divided by Equity, which is the ultimate measure of economic success.

Profitability is ‘the ability of a given investment to earn a return from its use’ (Srivastava & Srivastava, 2006). Profit maximization is said to be the main objective of all firms. In a competitive marketplace, a business owner must learn to achieve a satisfactory level of profitability. Increasing profitability involves determining which areas of a financial strategy are working and which ones need improvement. Maheshwari (2001) explains that profitability is the final measure of economic success achieved by a company in relation to the capital invested. This economic success is determined by the magnitude of the net profit. To achieve an appropriate return over the amount of risk accepted by the shareholders is the main objective of companies operating in capitalist economies. After all, profit is the propulsive element of any investments in different projects.

III. Research Methodology

Survey research design was employed in the study. The target population of the study consists of top and middle level managers of microfinance banks in Kakamega County represented by 55 employees. A sample size of 55 employees was considered for this study. Top and middle level management in each of these microfinance banks were interviewed. Census survey is a complete enumeration of all items in the population (Kothari, 2004). Accordingly, this sampling technique is useful when the target population is less than one hundred. In this research the sampling frame were the 4 microfinance banks in Kakamega County that are members of the Association of Microfinance Institutions (AMFI). A structured questionnaire with closed ended questions was handed to the respondents to fill. The questionnaire used five point Likert scale format presented as: 5-Strongly disagree, 4-Disagree, 3-Sometimes, 2-agree and 1-Strongly Agree. A pilot test was conducted with the objective of ensuring the validity and reliability of the questionnaire. The test of validity was checked by computing Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Bartlett’s test of sphericity. Reliability of the study was checked through the computation of Cronbach’s alpha coefficient. The data collected in the study was guided by the research objective and research hypothesis. Therefore to determine the relationship between the independent variables and dependent variable (profitability) inferential statistics was used. This included Pearson correlation and linear regression analysis. Data entry, storage and analysis were done using Scientific Package for Social Sciences (SPSS).

IV. Findings and Discussions

4.1 Descriptive Statistics

The data was analyzed using mean and standard deviation. The scale of the responses ranged from to strongly agree to strongly disagree. A number of questions were frontal to the respondents who gave their responses on a scale of 1-5 where 5 represent to a strongly agree while 1 represents strongly disagree. Table 1 the mean and standard deviation of how debt equity ratio impacts on profitability. A mean of between 3 and 5 shows that the factor has a great impact on the profitability of the firm while a mean of 1-2 shows that the factor has less effect.
on the profitability of the firm.

### Table 1: Descriptive Results for Debt Equity

<table>
<thead>
<tr>
<th>Description</th>
<th>SD</th>
<th>D</th>
<th>SA</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms are likely to lose resources when performing certain function</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100% (43)</td>
<td>5.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>In Kenya Firms have conducive environment to operate in</td>
<td>0%</td>
<td>0%</td>
<td>92% (40)</td>
<td>8% (3)</td>
<td>0%</td>
<td>3.0769</td>
<td>0.27735</td>
</tr>
<tr>
<td>Taxes Charged on Intermediaries are too high</td>
<td>0%</td>
<td>8% (3)</td>
<td>84% (37)</td>
<td>8% (3)</td>
<td>0%</td>
<td>3.0000</td>
<td>0.40825</td>
</tr>
<tr>
<td>Our institution has practiced tax avoidance</td>
<td>92% (40)</td>
<td>0%</td>
<td>0%</td>
<td>8% (3)</td>
<td>0%</td>
<td>1.0769</td>
<td>0.27735</td>
</tr>
<tr>
<td>We have challenges meeting our Debt obligations</td>
<td>0%</td>
<td>23% (10)</td>
<td>62% (26)</td>
<td>15% (7)</td>
<td>0%</td>
<td>2.9231</td>
<td>0.64051</td>
</tr>
</tbody>
</table>

From the above analysis most respondents agreed that firms are likely to lose resources when performing certain functions at a mean of 5.00 while very few respondents agreed that they practiced tax avoidance at a mean of 1.07. Most of the respondents (mean of 3.07) were in agreement that the Kenya had a good conducive environment for operating a micro finance business. Few of the respondents agreed that the firms had challenges meeting their debt obligations at a mean of 2.92.

### Table 2: Descriptive Results for Profitability

<table>
<thead>
<tr>
<th>Description</th>
<th>SD</th>
<th>D</th>
<th>SA</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer deposits impact on Intermediary performance</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>23% (10)</td>
<td>77% (33)</td>
<td>4.92</td>
<td>0.277</td>
</tr>
<tr>
<td>Liquid assets impact on the performance of the organization</td>
<td>0%</td>
<td>0%</td>
<td>46% (20)</td>
<td>38% (17)</td>
<td>16% (6)</td>
<td>3.69</td>
<td>0.751</td>
</tr>
<tr>
<td>Level of Equity determine the cost of capital and profitability</td>
<td>0%</td>
<td>0%</td>
<td>8% (3)</td>
<td>8% (8)</td>
<td>84% (37)</td>
<td>4.84</td>
<td>0.375</td>
</tr>
<tr>
<td>Non-Interest income is an Important driver of profitability</td>
<td>0%</td>
<td>0%</td>
<td>38% (17)</td>
<td>46% (20)</td>
<td>16% (6)</td>
<td>2.76</td>
<td>0.725</td>
</tr>
<tr>
<td>Efficient allocation of portfolio minimizes taxes</td>
<td>0%</td>
<td>0%</td>
<td>15% (7)</td>
<td>69% (30)</td>
<td>16% (6)</td>
<td>4.00</td>
<td>0.577</td>
</tr>
</tbody>
</table>

From Table 2 analysis it was found that customer deposits had an impact on the profitability of the bank at a mean of 4.92. This means that most of those banks used the deposits for lending to their customers. Also the level of equity determines the cost of capital and profitability at a mean of 4.846. The non-interest income did not contribute greatly to the profitability of a bank because it had a mean of 2.769. Another factor that didn’t impact greatly on the profitability of the bank was the liquid assets at a mean of 3.69.

### 4.2 Inferential statistics

The specific objective of the study was to determine the effect of debt equity on profitability of Micro Finance banks in Kakamega County. The findings of this objective tested the research hypothesis that posits: $H_0$: debt equity has no significant effect on profitability of Microfinance banks in Kakamega County. This was achieved using both Pearson correlation and linear regression analysis at 0.05 significance level.

### Table 3: Correlation between profitability and debt to equity ratio

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>1.0000</td>
</tr>
<tr>
<td>Debt to equity</td>
<td>0.947</td>
</tr>
</tbody>
</table>

From Table 3, the results revealed that there is a strong positive correlation $r = 0.947$ between profitability and debt equity of microfinance institutions in Kakamega County. This implies that increase in debt to equity ratio would results to increase in profitability of microfinance.

### Table 4: Regression Results for profitability and debt to equity ratio

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.947</td>
<td>0.896</td>
<td>0.886</td>
<td>2588</td>
</tr>
</tbody>
</table>

Regression Coefficient

Unstandardized Coefficients Sig.
From Table 4, using a significance level of 5%, any variable having a significant value greater than 5% is not statistically significant. Debt equity ratio was found to significantly account for 89.6% ($R^2=0.896$) variation in the profitability of sample microfinance banks in Kakamega County. From Table 4, debt equity ratio is statistically significant being at 0%. This means that debt equity is suitable predictors of profitability. This means that for every unit increase in measure of debt equity, the level of profitability increases by 0.719 units.

Profitability=$0.093+0.719$ Debt Equity Ratio

The results of this study revealed that debt to equity ratio has significant relationship with profitability of microfinance banks in Kakamega County. Debt to equity ratio has significant influence on the profitability of sampled microfinance banks. Therefore, the null hypothesis was rejected implying that debt equity has no significant effect on profitability of Microfinance banks in Kakamega County. These findings agree with Velnampy and Niresh (2012) who found out that positive association between debt to equity and profitability of ten listed SriLankan banks over the past 8 years period from 2002 to 2009. On the other hand, Ulzanah and Murtaqi (2015) established that debt to equity ratio has a negative significant impact towards profitability (ROA) of companies listed in LQ45. Firm’s with higher DER is considered more risky since debt is used more than the equity, it will result in the higher interest rate which will decrease profit. The lower profits will result to the lower value of ROA. So, the increasing of DER value will result in the decreasing of ROA value.

V. Conclusion and Recommendation

From the results debt equity has a significant influence on the profitability of the microfinance banks. An improvement on the debt equity will lead to a significant improvement on the debt equity ratio. Debt equity was found to be a good predictor of profitability of a microfinance banks. The study failed to accept the null hypothesis that debt equity has no effect on the profitability of the microfinance institution. The results from the likert scale, most financial intermediaries had a conducive environment to operate in and although the tax charged on the intermediaries was high most of the firm s made profit nonetheless. Most of the banks didn’t experience a challenge in meeting their debt obligations.

The implication of the conclusions made under this study is that microfinance banks in Kakamega County should increase their average loan sizes as this will improve financial sustainability. These institutions should attract high income bracket borrowers and managers need also to accompany improved loan averages with expanded services and effective follow-up of loan recoveries as indicated by the existence of the relationship between financial leverage and profitability. The challenges banking risks however, need to be properly managed through stringent practices and policies.

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