The Effects of Capital Budgeting Techniques on The Growth of Micro-Finance Enterprises in Mombasa

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Abstract: Capital budgeting is the process through which firms decide which long-term investments are expected to generate cash flows over several years. The decision to accept or reject a capital budgeting decision depends on an analysis of cash flows generated by the project and it's costs. The decision rules in capital budgeting decision are Payback Period, Net Present Values, Internal Rates of Returns, Accounting Rates of Returns and Profitability Index. A capital budgeting decision rule must consider all of the project's cash flows, must consider time value of money and must always lead to the correct decision when choosing among mutually exclusive projects. Capital budgeting projects are classified as either Independent project or mutually exclusive projects. An Independent project is a project whose cash flows are not affected by the accept/reject decision for other projects. Thus all Independent projects meeting the capital budgeting criterion should be accepted. Mutually exclusive projects are a set of from which at most one will be accepted. The main objective of this research is to determine the effect of capital budgeting on the growth of MFIs in Mombasa County. The specific objectives of this research are assessing the extent to which Internal Rate of Returns assist in the investment appraisal of MFIs in Mombasa County, establishing the factors influencing the usage of NPV by MFIs in Mombasa County, to assess the extent to which Payback Period rule affects the growth of MFIs in Mombasa County and to find out the challenges that MFIs in Mombasa County face in the implementation of Capital Budgeting Decisions. The study research design employed was a census method. This is a method of collecting information that represents the views of the whole community and group. There was collection of quantitative data which was analyzed using descriptive statistics. The study population consisted of all MFIs operating within Mombasa County. There are 16 Micro finance Enterprises in Mombasa County as per data from Association of Micro finance Institutions of Kenya website. The data was collected from all these Micro-finance enterprises with one of them being used as a pilot test. Thus data was officially utilized essentially from 15 Micro-finance Enterprises as the sixteenth one was a pilot test. The data collected was analyzed using descriptive statistics and regression, presented in tables and charts extracted from both MS Excel and Statistical Package for Social Studies (SPSS) software tools. The data collected was presented in tables and charts extracted from both Ms excel and Statistical Package for Social Studies (SPSS) software tools version 20. The general findings of the research were that the capital budgeting techniques do indeed play an essential role in the growth of micro-finance enterprises from Mombasa County. Recommendations like better communications between micro-finance enterprises and the essentiality for better trained employees were made further stating that the government should strive to ensure that micro-finance enterprise managers are properly trained on emergent financial trends like capital budgeting. Some simple capital budgeting techniques like payback period should be taught at even technical colleges.

Keywords: Multinational enterprises, Capital Budgeting, Mutually exclusive projects, Capital constraint, Informal sector.

1. Introduction

Capital budgeting is seen as a means through which investment decisions by micro finance enterprises are majorly based on. Capital budgeting is a required managerial tool [1]. Multinational capital budgeting, like domestic capital budgeting, focuses on the cash flows of prospective long-term investment projects [2]. It is used both in traditional, foreign, direct-investment analysis, such as the construction of a chain of retail stores in another country, as well as in cross-border mergers and acquisitions activity. International capital budgeting decisions are similar to domestic capital decisions but are more demanding due to additional considerations that must be taken into account. Such additional considerations may include foreign currency considerations, transfer pricing and political (country) risk.

The most crucial information for the capital budgeting decision is the forecast cash flows [3]. Multinational capital budgeting analysis, focusing on cash flow, shows that; it easily measures the impact upon the firm’s wealth, profit and loss in financial statements do not always represent the net increase or decrease in cash flows, cash flows occur at different times and these times are easily identifiable, the time of flows is particularly important for capital budgeting analysis, cash flow can provide existing data for forecasting projects and cash flow will change the firm's overall cash flow as a direct result of decision to be accepted or rejected [4].

Capital budgeting also occurs in the public sector. The capital budgeting debate can be traced back to at least 18th century England. Capital budgeting in the public sector is subject to political accountability [5].

The finance sector in Kenya was served by 43 commercial banks, 96 foreign exchange bureaus, 2 mortgage finance institutions, 5122 Savings and credit societies (SACCOS), 6 development finance institutions and 34 microfinance institutions [6]. The microfinance sector in Kenya is currently serving 6.5 million people with outstanding loans of US $ 310 million (amfikenya.com). Microfinance in Kenya is carried out by institutions with varied forms including companies, cooperative societies, trusts, non-governmental organizations (NGOs) state corporations and governmental organizations (NGOs) state corporations and
informal operators such as moneylenders [6], here are over 100 organizations in Kenya including 50 non-Governmental organizations (NGOs) which practice some form of microfinance [7]. 20 of these organizations practice pure microfinance while the rest practice microfinance alongside social welfare activities. Kithinji (2002) noted that Kenya has had more exposure to microfinance than any other country in Sub-Saharan Africa, with micro-credit programmes dating back to the early 1980s [8]. The major players in this sector are Faulu Kenya, Kenya Women Finance Trust KWFT), Pride Ltd, Wedco Ltd, Small and Medium Enterprise Programme (SMEP), (Kenya Small Traders and Entrepreneurs Society (KSTES), Ecumenical Loans Fund (ECLOF) and Vintage Management (Jitegemee Trust) [7]. The Microfinance sector is licensed and regulated by the Central Bank according to the Microfinance Act (GOK 2006). The microfinance sector regulation has adopted a 3 tiered approach which comprised a prudential regulation and supervision for deposit-taking institutions by the Central bank, a non-prudential regulation for credit only by the Ministry of Finance and finally no regulation for ROSCAs and ASCAs [9].

Microfinance institutions in Mombasa vary in size and approaches. They provide a variety of services such as loans ranging from Ksh1, 000 to Ksh.1 million and above to individual group members through the Grameen lending model. They also offer saving products, health insurance and business training for group members. The microfinance sector in Mombasa also has regional players who have a presence only in the Coast province and also institutions that have a presence in more than one region of the country. Players who have a presence only in the Coast province include Yehu Enterprise Services. Institutions with a presence in other parts of the country include Faulu Kenya, Kenya Women Finance Trust (KWFT) Small &Micro Enterprise Program (SMEP), and 4 K-REP bank among other institutions. Institutions in Mombasa range from NGO based microfinance institutions and commercial microfinance institutions.

1.1 Statement of the problem

“The high interest rates on loans, world economic crisis, low level of managerial skills” among other factors inhibit the growth of many enterprises worldwide [10], micro financial enterprises in Mombasa County are largely impeded in their quest to achieve profitability by factors like financial problems, insufficient know-how (on how they can navigate successfully in the business sector, the technical know-how), unfair competition from larger and more established market players etc. Due to the above factors, micro-finance enterprises are impeded in their quest to achieve financial stability. This is because MFIs are the main lenders to small businesses and if these MFIs are not properly shielded from market negatives, it has a domino effect on the stability of businesses in the county, the transition rate of businesses in Mombasa County from being SMEs to being larger and more competitive market players is thus impeded if microfinance enterprises in the County are not protected. Microfinance institutions offer business solutions to small and medium enterprises by providing savings and credit, insurance, payment services, social intermediation services such as group formation, development of self-confidence, and training in financial literacy and management capabilities among members of a group [11]. MFIs in the County have eventually become casualties of market dynamics that favor the larger and more established market players (financial intermediaries) as opposed to MFIs which are cannibalized by these established firms easily. A sound prescription to impediments encountered by micro finance enterprises from Mombasa County would be to adopt new and proven techniques that would ensure eventual financial stability for SMEs operating in Mombasa County. With stability comes the room for financial and organic growth for these micro finance enterprises and their client base. It is thus essential to note that in this instance, capital budgeting techniques come in handy. It is a rule or tool that will go a long way to liberate these micro finance enterprises so that they may grow exponentially. Capital budgeting will thus ensure long-term financial stability of the said micro finance institutions. This is so because capital budgeting techniques ensures sound investment decisions that are long-term in nature (higher quality investment appraisal mechanism).

1.2 Research Objectives

The overall objective of this study was to determine the effects of capital budgeting on the growth of micro finance enterprises in Mombasa County. The specific objectives were:

1. To identify how payback period influences the spread of micro-finance enterprises in Mombasa County.
2. To assess the role played by internal rates of return in investment appraisal of micro finance enterprises in Mombasa County.
3. To establish the relationship between net present values and micro-finance enterprises in Mombasa County.
4. To establish the challenges that micro finance enterprises in Mombasa County face in implementing capital budgeting decisions.

2. Theoretical Literature

A simple rule managers can use to make capital budgeting decisions: Invest in all positive net present value projects and reject those with a negative net present value [12]. By following this rule, capital budgeting theory says firms will make the set of investment decisions that will maximize shareholder’s wealth. It can be observed that, because net present value is a complete measure of a project’s contribution to shareholder’s wealth, it is thus the main capital budgeting tool to be used.

Capital budgeting theory generally assumes that the primary goals of a firm’s shareholders is to maximize the firm’s value. In addition, the firm is assumed to have access to perfect financial markets, allowing it to finance all value-enhancing projects. When those assumption are met, firms can separate investment and finance decisions and should invest in all positive net present value projects [12].

The net present value theory of how investments should be chosen offers decision makers a tool by which they can evaluate several different alternatives when the investment period extends over some period of time. The idea is based
on the idea that investments (loans) are undertaken with the expectation that future benefit will be received, but that the future benefit in question must be paid for with the loan. Generally, the goal is for investments to be self-sustaining; that is, the loan should generate benefits sufficient to cover the repayment of the loan. If additional funds must be generated to cover the repayment, the investment is considered a poor one [13].

Just as a borrower takes out a loan to generate some sort of benefit (in the case of a business, the benefit is typically a stream of revenue), so the lender considers

Just as a borrower takes out a loan to generate some sort of benefit (in the case of a business, the benefit is typically a stream of revenue), so the lender considers the loan an investment. In exchange for making funds available to the borrower, the lender charges an interest rate; that interest rate is the lender's own cash flow. Banks charge interest rates to their borrowers, and pay interest rates to their depositors (from whom the banks are essentially "borrowing" funds). Similarly, interest (coupons) is paid on corporate bonds. When considering investments of this type, decision makers typically take into account the interest rate that they will be earning on their funds. Over time, this rate of return provides a gauge by which investments can be measured.

3. Conceptual Framework

This study sought to establish the effect of capital budgeting on the growth of micro-finance enterprises in Mombasa. The independent variables were net present values, internal rate of returns, payback period and capital budgeting decisions. Dependent variable was growth of Mombasa micro-finance enterprises. The study therefore proposed the following conceptual framework.

![Conceptual Framework](image)

4. Empirical Review

There was a wide disparity between the capital budgeting theory and practice by analyzing the risk in investment decisions and the profitability criteria for investment selection. Appraisal techniques (either discounted or non-discounted ones. The M&M capital-structure irrelevance proposition He however established that the theory and practice disparity in capital budgeting could be modified to make it more meaningfully operational by maximizing firms value(mfi) as the main objective of investments decisions and improvising a criterion for choosing between timpatterns of share prices. He confirmed the prevalent use of PBP and AP unlike the IRR and the NPV in the observed companies he did and the need to establish a reason behind the executives' choice and how to modify the IRR and NPV to make them more applicable.

A survey was done in USA to determine the role of the board of directors in capital budgeting process [14]. The sample consisted of "S&P 500" firms and covered the period from 1995 to 2000. Their final sample consisted of 2,262 firms after excluding financial institutions due to their special governance regulations and requirements and a further 292 firms for whose proxy statement information was not obtained. They used both univariate and multivariate data analysis methods in their survey. They found 17% of the board of directors of the sampled firms disclosed to having established committees with a capital budgeting role. The study revealed that board of directors have four main roles in capital budgeting including review of annual budgets, large capital expenditure requests, merger and acquisition proposals and performance of approved budgets. Some committees have an advisory role in capital budgeting process. The main finding of the study was that boards of directors have a dual role in capital budgeting process, which is the disciplinary and advisory role. A study on the use of capital budgeting techniques in businesses in the Western Cape Province of South Africa investigated a number of variables and associations relating to capital budgeting practices [15]. The sample consisted of 600 firms but only 211 interviews were conducted successfully giving a response rate of 35%. A descriptive approach to the research finding was adopted. The study revealed 64% of the businesses surveyed used only one method of capital budgeting while 32% used between two and three different techniques to evaluate capital budgeting decisions. The more complicated methods such as NPV and IRR were favored by large businesses compared to small businesses.

Investment and financing decisions and their interactions as the corporate financial principles addressed by financial managers to help them in providing accurate answers to the two fundamental preoccupations of the investments the firm should make and how it should pay for the Investments [12]. They qualify that that is the secret of success in financial management. In principle, a firm's decision to invest in a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox. Typically, students in corporate finance are taught that a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox. Typically, students in corporate finance are taught that a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox. Typically, students in corporate finance are taught that a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox. Typically, students in corporate finance are taught that a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox. Typically, students in corporate finance are taught that a new project should be made according to whether the project increases the wealth of the firm's shareholders. The way capital budgeting is taught and practiced presents a paradox.

5. Research Gap

From the above literature, it is clear that the micro-finance enterprise sector growth is dependent on the capital budgeting techniques thus also growing the economy. Further to improving the economy, it is clear that micro-
finance sector’s means for growth is not only capital budgeting techniques as shown by various studies, micro-finance institutions also require a wide range of financial, business development, social services for different business and household purpose. Access to these financial services or related services thus stands out as an essentiality here. It is also clearly visible that the area of inflation as it relates to capital budgeting techniques is not properly highlighted in the literature. Do inflationary tendencies play a role in the selection of capital budgeting technique to influence growth of micro-finance enterprises? This said area should thus be reviewed and researched further.

6. Research Methodology

In addition, a research design is a blue print which facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible hence yielding maximum information with minimal expenditure of effort, time and money.

This study used a descriptive research design. The target population of this study was therefore finance managers and finance clerks of 16 micro-finance firms in Mombasa with one of the firms being used as a pilot test. A total of 3o (main respondents) and 2 (pilot test respondents). A census methodology will thus be used since the population of MFIs is low (16) in Mombasa County.

Quantitative data, which was collected using structured questionnaires, was analyzed using the Statistical Package for Social Scientists (SPSS), which offers extensive data handling capability and numerous statistical analysis routines that can analyze small to very large data statistics and can generate descriptive statistics [17].

The qualitative data was organized according to answers to open ended questions in the questionnaire and analyzed through content analysis.

Presentation of data was in form of Tables, Pie-charts and Bar graphs only where it provided successful interpretation of the findings. Descriptive data was provided in form of explanatory notes.

To test whether the relationship between capital budgeting techniques and growth of micro-finance enterprises holds in Mombasa County, regression analysis was used in the data analysis process using the regression model. Regression applications in which there are several independent variables, $x_1$, $x_2$, ..., $x_k$.

Growth of MFE=$\beta_0 + \beta_1$NPV+$\beta_2$IRR+$\beta_3$PBP+$\beta_4$CBD+\epsilon

Multiple regression model was used to determine the importance of each variables with respect to the growth of micro-finance enterprises.

$Y=\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon$

$Y=the\ dependent\ variable.$

$\beta_0=constant\ term.$

$\beta_1$, $\beta_3$, $\beta_4= independent\ variables.$

$\epsilon=error\ term.$

Growth of MFE=$\beta_0 + \beta_1$NPV+$\beta_2$IRR+$\beta_3$PBP+$\beta_4$CBD+\epsilon

7. Results and Discussion

7.1 The relationship between net present value and micro-finance enterprises

The study clearly showed that there is a clear relationship between net present values as a capital budgeting technique and the micro-finance enterprises in Mombasa. That relationship is clearly characterized by the tendency of the micro-finance enterprises to depend on NPV so as to know their present value, assure them on the sustainability of their long-term investments and ensuring that these micro-finance enterprises do not waste resources since net present value is also finance saving technique. The findings showed that there is a high tendency of micro-finance enterprise utilization of net present value capital budgeting technique. The findings also showed that there were some positive correlations between some of the variables.

7.2 What roles are played by internal rate of returns in the investment appraisal of micro-finance enterprises in Mombasa County.

From the study, it has been deduced that internal rates of returns play an essential role in the investment appraisal carried out by micro-finance enterprises. It is through knowing the rate of returns that the micro-finance enterprises can know how to set up interest rates. It is also through this capital budgeting technique that micro-finance enterprises can effectively save financial resources through knowing the rates of returns and effectively making investments based on this knowledge. From the study, internal rates of return have come out clearly as a financial health indicator of these micro-finance enterprises. It is through knowing the internal rates of returns that a micro-finance enterprise can effectively know it’s financial capability and thus make financial forecast or prepare themselves for any future financial eventuality. The findings also showed that there were some positive correlations between some of the variables.

7.3 How payback period affects the rate of growth of micro-finance enterprises in Mombasa County.

Payback period is generally the calculation of the duration through which an organization expects to get returns on investments. It is mostly used for investments that do not take that long. From the study, it has been deduced that payback period is a rather simple capital budgeting technique and it is because of this that many micro-finance enterprises in Mombasa County tend to use it for their investment appraisal. Payback period has also been observed to be a finance saving capital budgeting technique. This is because a micro-finance enterprise will generally know when to expect payments of loans from it’s members. Getting to know the average payback period of loans will make the micro-finance enterprise save finances through not approving loans for individuals with a longer average payback period. The findings also showed that there were some positive correlations between some of the variables.
7.4 What challenges micro-finance enterprises face in the implementation of capital budgeting.

It has been deduced from the study that micro-finance enterprises face many challenges in the implementation of capital budgeting techniques. One of them is knowledge sharing. Some micro-finance enterprises are modern in nature and thus have the financial might to counter any turbulence that may come their way. They have the expertise and know how to navigate through emergent organizational trends. Some capital budgeting techniques, although efficient, do require experts to assist in their implementation (as per the study). Not all micro-finance enterprises have access to such know-how and skilled labor thus the need and challenge of knowledge sharing arises. As per the study, many micro-finance enterprises operating in rural Mombasa are not exposed to emergent finance techniques like capital budgeting techniques. The findings also showed that there were some positive correlations between some of the variables.

### Correlations

<table>
<thead>
<tr>
<th></th>
<th>GMF</th>
<th>Capitalbudgeting_decisions</th>
<th>Payback_period</th>
<th>Internalrateof_returns</th>
<th>Netpresent_value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMF</td>
<td>1</td>
<td>0.948</td>
<td>0.896</td>
<td>0.823</td>
<td>0.22</td>
</tr>
<tr>
<td>NPV</td>
<td>0.948</td>
<td>1</td>
<td>0.92</td>
<td>0.81</td>
<td>0.173</td>
</tr>
<tr>
<td>IRR</td>
<td>0.896</td>
<td>0.92</td>
<td>1</td>
<td>0.835</td>
<td>0.151</td>
</tr>
<tr>
<td>PBP</td>
<td>0.823</td>
<td>0.81</td>
<td>0.835</td>
<td>1</td>
<td>0.067</td>
</tr>
<tr>
<td>CBD</td>
<td>0.22</td>
<td>0.173</td>
<td>0.151</td>
<td>0.067</td>
<td>1</td>
</tr>
</tbody>
</table>

**Key:** NPV-Net Present values, IRR-Internal rate of returns, PBP-Payback period, CBD-Capital budgeting decisions, GMF-Growth of micro-finance enterprises. There is a weak positive coefficient of correlation of 0.220 between growth of micro-finance enterprises (dependent variable) and net present value (independent variable) indicating that net present value has minimal effect on the growth of micro-finance enterprises in Mombasa County. There is a strong positive correlation of 0.823 between growth of micro-finance enterprises (dependent variable) and internal rate of returns (independent variable) indicating that internal rate of returns has a strong influence on the growth of micro-finance enterprises in Mombasa County. There is a strong positive correlation of 0.823 between growth of micro-finance enterprises (dependent variable) and payback period (independent variable) indicating that payback period has a strong influence on the growth of micro-finance enterprises in Mombasa County. There is a strong positive correlation of 0.948 between growth of micro-finance enterprises (dependent variable) and capital budgeting decisions (independent variable) indicating that capital budgeting decisions has a strong influence on the growth of micro-finance enterprises in Mombasa County.

### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.955*</td>
<td>0.913</td>
<td>0.899</td>
<td>0.22983</td>
<td>0.913</td>
<td>65.294</td>
<td>4</td>
<td>25</td>
<td>0</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Capitalbudgeting_decisions, Netpresent_value, Internalrateof_returns, Payback_period

From the table above, 91.3% of the relationship between the growth of micro-finance in Mombasa County is explained by the independent variables namely; net present value, payback period, internal rate of returns and capital budgeting decision. The remaining 8.7% is the relationship by other variables.

### ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>13.796</td>
<td>4</td>
<td>3.449</td>
<td>65.294</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>1.321</td>
<td>25</td>
<td>0.053</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15.117</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Microfinance_growth

b. Predictors: (Constant), Capitalbudgeting_decisions, Netpresent_value, Internalrateof_returns, Payback_period

The test of ANOVA was also carried out (Table 4.20) to test whether capital budgeting techniques influence the growth of Mombasa County micro-finance enterprises. When the test was run at 0.05 significance level, the p value was 0.000. If p value (0.000) is less than α (0.05) then the result is significant inferring capital budgeting techniques do affect the growth of Mombasa micro-finance enterprises.

8. Recommendations

Financial managers and finance clerks of micro-finance enterprises in Mombasa County must be well versed and acquainted with capital budgeting techniques so as to shield the organization from financial turbulence. The government should strive to ensure that micro-finance enterprise managers are properly trained on emergent financial trends like capital budgeting. This would make the micro-finance enterprises to thrive thus positively influence the economy (mostly the informal sector).

Some simple capital budgeting techniques like payback period should be taught at even technical colleges. This would help give rise to a financially enlightened citizenry. This would even promote prudence in their financial
endeavourer. Eventually, it will have “trickledown” effect to how even micro-finance enterprises from the rural side of Mombasa are run.

Micro-finance enterprises should strive to ensure that they have a reference bureau whereby all the information on defaulting clients can be shared. This would eventually help these micro-finance enterprises better estimate their members payback period, internal rates of returns and their net present values.

9. Future Scope of the Study

The current study was based on a limited sample taken from Mombasa County. Therefore the results could not be generalized to other parts of Kenya especially in the analytical terms. Further research done on a bigger scale with a large sample size could shed light on how capital budgeting techniques effects the growth of micro-finance enterprises in Kenya, analytically. The current study did not consider the reasons of motivation to use capital budgeting techniques by the micro-finance enterprises from Mombasa County.

There is also another field which is neglected in our study. It is the gap of micro-finance enterprises. Actually, to what extent the micro-finance enterprise are capable of delivering services to the people. Further research could be conducted in this area and for finding reasons for the gap between demand and supply in terms of micro-finance services.

References


