CASH BUDGETING PRACTICES AND PROFITABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES IN NYERI TOWN SUB-COUNTY, KENYA

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ABSTRACT

The study sought to establish the effect of cash budgeting practices on profitability of Small and Medium-sized Enterprises in Nyeri County, Kenya. Profitability was measured using the Return on Assets (ROA). The study used systematic sampling to determine the different SMEs whose employees and officials would be adopted as sample members. In this study, the researcher used 311 respondents as sample members with 100 of them being the officials mostly from management. Questionnaires were used in collecting primary data. The instrument was tested for reliability using Cronbach’s Alpha Reliability test while content validity was assessed using expert opinion. The researcher used Statistical Package for Social Sciences (SPSS) to conduct data analysis. The study used both descriptive and inferential statistics in data analysis. Further, diagnostic tests were conducted to check whether the data set met general assumptions for certain statistical procedures such as regression analysis. The diagnostic tests included; normality tests, multicollinearity test, and heteroscedasticity test. Data was analysed using descriptive and inferential analysis. Descriptive statistics included means and standard deviations. The inferential statistics included the regression analysis and Pearson correlation analysis. As indicated by R square, the Coefficient of Determination, 78.49 percent of variation or changes in profitability was explained by variation in cash flow management and its component variables. With regard to regression analysis results, the coefficient for cash budgeting ($\beta=0.601$, $p=0.021$) shows that cash budgeting has a statistically significant effect on profitability. The results of Pearson correlation analysis indicated that cash budgeting ($r=0.662$, $p=0.001$) has a strong positive and statistically significant relationship with profitability. The study recommends that SME managers ensure that adequate cash is set aside to cater for unforeseen negative cash flows, which was scarcely the case, going by the findings. In addition, it is recommended that the government through her agencies such as the National Chamber of Commerce and Industry and the Small and Medium Enterprise Authority consider financial literacy training for SMEs to enlighten them on best practices in business management especially matters related to cash budgeting.

Key Words: cash budgeting, profitability, cash flow management, small and medium enterprises

INTRODUCTION

The Kenya National Bureau of statistics economic survey report (2016) indicated that SMEs contribute up to 45% of Kenya’s’ gross domestic product. The report further states that SMEs employ at least 85% of the Kenyan workforce hence they play an important role in the economy. According to Vasiliu and Dobrea (2013), small and medium enterprises have special characteristics that includes; these firms are small in size, the firms have greater likelihood of
bankruptcy, there is less information transparency provided to creditors about these companies and greater ability to change the nature of their assets. Further, the performance and profitability of the Small and Medium Enterprises is also affected by the unstable or reduced internal financing which also reduces the accessibility of funds for the organization. These financial challenges and lack of consolidated immovable assets by the SME’s leads to reduced possibility of credit funding which limits the firms growth and investments options due to lack of financing. Oluoch (2016) described the Small and Medium Enterprises as the firms that employ 1-50 people that is either in the formal or informal sectors. These enterprises are also not limited to any form of industry or sectors and they give provision for money creation, employment creation and reduction of poverty among the people of a given country.

In the United States of America (USA), the Small and Medium Enterprises are in various economic sectors with consideration of the annual turnover to a maximum of USD 22million (Hashim & Abdullah, 2013). The World Bank (1978) SMEs are enterprises that employee between 5-199 permanent employees can be said to be SMEs. In the European Union the Small and Medium Enterprises can be said to be those firms that employee less than 500 employees. Muturi (2016) observed that SMEs faced a lot of challenges despite their contribution to the economy and must identify ways to improve their profitability. Profitability of a firm is dependent on how well it manages its working capital and specifically cash management being a key item (Juan Garcia-Teruel & Martine-Solano, 2007). As such, for a firm to improve its profitability it must have a competitive advantage against its competitors. According to ILO (2010), about two thirds of the SMEs were generating equal or below the minimum wage.

Bowen, Morara and Murithi (2009) also observed that 50% of SMEs that were in operation had a declining performance and tend to register no growth at all and that three out of five SMEs exit business during the first year of operation. Cash management practices have been identified as a possible link to declining performance among firms. Karadag (2015) identified cash management practices as a major challenge among turkey firms and is highly linked to business failures in Small and Medium Enterprises. The study further suggest that poor financial management practices lead to low performance hence firms need to employ efficient cash management practices. Augustine and Jacob (2017) observed that in Nigeria poor cash management practices led to declining performance among listed firms. Kasim (2010) suggested that companies in the world market must be able to manage cash effectively in order to meet their current obligations and hence remain in business.

Profit maximization is a major goal for any business entity. Brigham and Houston (2012) defined profitability as the ability of a firm to earn profit. Profit is the excess amount generated from a firm using its resources to create revenue after paying its expenses. A firm needs to measure its profitability to gauge its performance since earning sales revenue is not necessarily an indication of a firm’s profitability ( McMahon, Holmes, Hutchinson & Forsaith, 1993). Profitability is normally measured using profitability ratios which portray how well a firm has utilized its
resources. Profitability ratios which have been used include; Gross profit margin, return on assets (ROA), return on investments (ROI), return on Equity (ROE) among others. Lee, Su and Liu (2017) argue that return on assets is a more effective way to measure profitability as compared to return on equity. Demirguc-Kunt and Huizinga (2010) also argue that return on assets is a superior measure of profitability as compared to return on equity since ROE is easily affected by owners’ capital. Cakiei, Chatterjee and Tang, (2017) advocated for gross profit or net profit as a more appropriate measure of profitability.

Cash management is an important aspect of efficient working capital. It’s concerned with planning and controlling cash flows in and out of the business entity, cash balances in the business entity and movement of cash within the business (Kaplan & Atkinson, 2015). According to Kroes and Manikas (2014), cash management is the analysis of cash receivables which is the total amount owed by customers generated from sales advanced on credit, inventory holding which is the costs associated with keeping unsold goods and cash payments to suppliers. Afrifa (2016) argues that cash flow management plays an important role in influencing working capital investments which consequently affects a firm’s performance. Cash management involves designing an optimal cash policy that balances between the costs of holding too much cash and holding too little cash (Kirkham, 2012). Cash flow management practices basically include; cash budgeting, cash collection, liquidity control and disbursement controls. Cash budgeting refers to an outlined plan of cash inflows as well as cash outflows expected in a given period of time. Cash budgeting is important since it enables companies to determine how much credit they can offer to their customers without fear of being faced by liquidity problems. Brooks and Mukherjee (2013) states that for a firm to be able to plan for its cash inflows and outflows it requires a well-developed plan in form of a cash budget.

According to the Kenya National Bureau of statistics (2013), three out of five SMEs fail within the first year of operation. Performance of the SMEs in Nyeri County has been faced by numerous challenges which has led to closure of some of the SMEs (Kinyanjui, Kiragu& Kamau, 2017). Small and medium sized enterprises are an important part of the economy. In Kenya, SMEs make up almost 97% of all businesses. According to the Kenya national bureau of statistics (2016), SMEs contribute about 45% of Kenya’s Gross Domestic Product. In addition, SMEs employ up to 85% of the total Kenyan workforce. In spite of their numerous contributions to the economy, SMEs still face many challenges that threaten their survival and performance. Approximately 95% of enterprises in many economies are SMEs and failure rate for SMEs in developed countries is between 70% and 90% (Kaminskaite, 2017). For the period of 5 years from 2012 to 2016, 2.2 million SMEs exited business due to poor performance. While studies have been done on the role of cash flow management practices on profitability there are still many unresolved issues.
STATEMENT OF THE PROBLEM

Having realised the significance and necessity of the Small and Medium Enterprises in development, the government of Kenya put in place measures to ensure proper facilitation and support of SMEs. This is to ensure total support in different aspects of the Economy. Some of the measures meant to support the growth of the SMEs includes; the establishment of affirmative action funds such as the Small and Medium Enterprise Authority, Women Enterprise Fund, Youth Enterprise Development Fund, National Government Affirmative Action Fund, and UWEZO Fund. Despite the continued support by the government and the private sector, most SMEs continue to have a short life spun and cannot be able to achieve their first birthday. According to the Kenya National Bureau of Statistics (2013), 3 out of 5 SMEs exit business within the first year of operation. This has been attributed to different factors but the main factor being poor cash management by the SMEs which end up giving low profits resulting to closure. An effective and efficient of cash budgeting framework has been fronted as one of the main factors that can help improve the profitability of the firm SMEs. The managers and administrators of different companies around the world in different industries have shown that the cash budgeting practices enable firms to increase their profitability. However, the results for most of these cases have not been all positive. Some past researchers established negative relationships between profitability and cash budgeting (Brooks, 2013). Varying effects have been found out on the relationship between the different components of working. Only a few studies have concentrated on budgeting practices among small and medium enterprises. According to Deloitte Kenya Economic Outlook (2016), about 80% of total employment in Kenya is credited to SMEs. Further, SMEs account for about 95% of all businesses in the developing countries (OECD, 2016). The research seeks to fill the existing gaps and enrich the available literature on cash budgeting practices and profitability of SMEs in Kenya with a focus on Nyeri County.

GENERAL OBJECTIVE

To establish the effect of cash budgeting practices on Profitability of Small and Medium Scale Enterprises in Nyeri County, Kenya.

RESEARCH HYPOTHESIS

H01: There is no statistically significant effect of cash budgeting practices on profitability of Small and Medium Scale Enterprises in Nyeri County, Kenya.

THEORETICAL REVIEW

The study was anchored upon the transaction cost theory, free cash flow theory and cash conversion cycle theory.
Transaction Cost Theory

Transactional Cost Theory was postulated by Ferris in the year 1981. The theory is based on the management of the payables which is said to be associated with the transaction costs. The theory suggests that efficient and effective management of payables would lead to reduced transaction costs. It is based on making collective payments for the expenses and supplies as opposed to making intermittent payments for all expenses every time they occur. It means that the firm should set a time when bills are paid as opposed to paying them every day. Monthly payments or quarterly payments are made compulsory so that all the expenditures are sorted together and this brings order in the expenditures of a firm. The organization will, therefore, be able to distinguish and separate the delivery schedule from the payment cycle (Williamson, 2013). The firms can be able to make arrangements for credit purchases of large inventories and maintain product flow or production.

Free Cash Flow Theory

The Free Cash Flow Theory was established in the year 1997 by Huseyin. The free cash flow theory states that it’s important for the management to keep liquid cash. This will help the management take advantage of investment decisions. The theory explains that with readily available cash, managers can easily invest in projects that will add to shareholder’s wealth by maximizing on shareholders return. Holding enough cash enables managers to take advantage of high growth projects since investment funds are readily available. This results to improved performance. On the other hand, limited cash will prevent the management from making investments and this could minimize shareholder’s wealth.

Holding excess cash could be detrimental to the business since this could lead a loss of possible income from investments that could have been undertaken. Another disadvantage of holding cash is the fact that managers may make careless financial decisions that may not add value to shareholder’s funds. Lastly, holding cash may also be detrimental due to interest paid on the debt. The payment of interest would have been eliminated if available cash was invested instead of taking up debts and holding available cash borrowed to invest. As much as the free cash flow theory advocates holding free cash flow, business managers must strike a balance between holding too little cash and holding excess cash (Kaplan & Atkinson, 2015). This theory acts as an important guide in understanding cash management practices like cash budgeting and their effect on profitability.

Cash Conversion Cycle Theory

The theory was developed by Gitman in the year 1974. The cash conversion cycle theory argues that the cash conversion cycle influenced financial performance positively. The Cash conversion cycle is a measure of time taken between acquiring raw materials and when cash flows into the business as a result to the sale of finished goods. Cash conversion cycle formulae measure the
time in days it takes for a company to turn its resources inputs into cash. The Cash conversion cycle helps business entities improve their financial performance since they are able to value the amount of cash needed for them to remain liquid. A longer cash conversion cycle leads to improved performance as the company expects high sales growth. On the other hand, a shorter cycle shows that business requires few resources to operate which may not be very profitable (Kinyanjui, Kiragu & Kamau, 2017).

The cash conversion cycle theory considers several items in the financial statements which include; revenue and cost of goods sold (COGS) from the income statement, Inventory at the beginning and end of the time period, account receivables at the beginning and end of the time period, accounts payables at the beginning and end of the time period and the number of days in the period (year = 365 days, quarter = 90). The Cash conversion cycle helps management in gauging whether working capital management is improving or deteriorating. This theory will be an important guide in analyzing several cash management practices like cash budgeting and the effect on profitability.

EMPIRICAL LITERATURE REVIEW

The empirical review presents past studies reviewed. The review presents the methodologies or approaches, concepts, theoretical foundations used as well as the findings established through the studies. This process is essential as it plays a key role in the identification of research gaps and guides a framework of filling those gaps. Raheman (2010) studied working capital management and its association with the financial performance of the firms in Pakistan. The study found out that there was a significant association between cash budgeting and firm performance.

Oluoch (2016) conducted a study on cash management practices and the performance of small and medium-sized enterprises in Eldoret central business district. The study used questionnaires as the main data collection tool advanced to a sample of 171 respondents. The study adopted both descriptive and inferential statistics in data analysis. The Performance was assessed using means and standard deviation. The study findings revealed that cash management practices specifically petty cash and cashbook preparations, cash collection and cash budgeting practices had a positive relationship with performance. The study presents empirical gaps on the need to include more cash management practices variables. Methodological gaps were also identified on the need to use other measures of performance indicators.

Uwonda and Okello (2015) dwelt on cash flow management and sustainability of SMEs in northern Uganda where the study considered a sample of 120 SMEs. Questionnaires were used for data collection. Correlation analysis and multiple logistic regressions were used for data analysis. The findings indicated that cash budgeting practices and cash flow control significantly influenced the sustainability of SMEs. The study revealed empirical and contextual gaps on the need to embrace more cash flow management practices and gauge if they affect performance and also replicate the study locally to give more applicable results.
Muthama (2016) embarked on a study to establish the effects of cash flow management practices on the operational performance of selected public hospitals in Kisii County, Kenya. The study sought to specifically address cash budgets, bank accounts and, bookkeeping. 31 public hospitals were sampled. The study applied both descriptive and inferential statistics using SPSS software. The study concluded that cash flow management improved operational performance. Specifically, cash budgeting practices was found to be a significant predictor of performance. The study presents empirical gaps on the need to include more cash management variables and evaluate other performance parameters that is the profitability of the firms.

**RESEARCH METHODOLOGY**

**Research Design**

In this study the mixed methods approach was adopted. This included both qualitative and quantitative methods. This was done to enable the researcher account for the views and opinion aspects of the data that is string variables by use of qualitative. The quantitative method was used to capture the nominal and numerical variables. The study also used a descriptive research design to explain the effect of cash budgeting practices on the profitability of SMEs. Mugenda and Mugenda (2003) argues that a descriptive design is used where there is an already existing relationship between variables and it seeks to explain the ‘what, where and how’ of a given phenomenon. The choice of descriptive research design is justified since the variables cash management and profitability involves already an existing relationship that cannot be manipulated.

**Target Population**

According to Kothari(2004), a target population refers to the entire group having the same features and from which a sample can be obtained to be used for research purposes. The target sample of 311 was drawn from the 3110 registered SMEs in Nyeri County as gathered from the Nyeri county business registration office.

**Sampling Design and Procedure**

Mugenda and Mugenda (2003) stated that a sample is a representation of the total population that can be used to generalize the results of a study. The researcher used a Systematic sampling procedure. The target population was grouped into five subsets namely Retail shops, Mpesa & Electronics, Food & Cereals, Clothing and Hardware shops. Data was collected from every third business shop on all the main roads and shops in the town. The respondents were the owners, directors, managers, supervisors and other employees of the business. According to Blumberg, Cooper& Schindler (2011), a sample of 10-30% is considered appropriate for a study, in this study a sample of 10% has been considered appropriate, hence the study’s sample size was 311.
Data Collection Instrument and Procedure

The study used primary data sources. Primary data was gathered using questionnaires. The researcher also reviewed the records, annual statements and documents held by the SMEs if any. The objective of the instruments was to determine the conditions of profitability of the SMEs and the cash management practices that were used by these firms and identify proxies for the variables used in this study. The drop and pick method of questionnaire administration was applied. Mugenda and Mugenda (2003) recommends the drop and pick method when dealing with a busy class of respondents.

Data Analysis and Presentation

The management and manipulation of data was achieved by use of Statistical Packages for Social Sciences (SPSS). This was done in two sets, that is, data collected was cleaned to get rid of the inaccurate inconsistencies and then grouped according to the research objectives. The output comprised descriptive and inferential statistics. Some of the statistical techniques and procedures that was conducted includes: descriptive statistics, correlation analysis, and regression analysis. The researcher also conducted descriptive statistics with an intention of understanding the feel of the data that is the characteristics of the variables therein. The correlation analysis or the correlation matrix was done to check linear relationship between the variables. The study used a regression model as adopted from (Kutner, Nachtsheim and Neter, 2004) for checking the influence of the explanatory variables (cash budgeting practices) on the dependent variable that is the profitability of the SMEs in Nyeri County. The model was as presented. The model estimated in this section was adapted from a study by Kinyanjui et al., (2017) with specific adjustments to the variables to suit the current study which includes additional variables like the cash budgeting, cash disbursement.

\[ Y_{ij} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: \( Y_{ij} \) = Profitability of SMEs will be measured by Return on Assets; \( X_1 \) = Cash Budgeting; \( X_2 \) = Cash Collection; \( X_3 \) = Liquidity Control; \( X_4 \) = Disbursement Control; \( \beta_0 \) = Constant; \( \beta_1, \beta_2, \beta_3, \beta_4 \), are regression Coefficients; \( \varepsilon \) is the error term.

RESEARCH FINDINGS AND DISCUSSIONS

Profitability of SMEs

The researcher collected information regarding the state of profitability in the SMEs in Nyeri town sub county, Kenya. The return on assets ratio was used as the ideal measure of profitability. Research results with regard to profitability of SMEs indicated that the return on assets averaged at 8.78 percent. The SME with the highest return on assets reported 12.02 percent with the least being a mere 3.20 percent. This as indicative that the profitability of SMEs in the county was largely dispersed with their being good and poor performers. Nonetheless, all the SMEs sampled
reported positive returns. The findings support past results by Oluoch (2016) who reported fairly good performance of SMEs.

**Cash Budgeting Practices by SMEs**

This part covers descriptive statistics on cash budgeting practices variable. The study sought to establish the budget approach adopted by the firms. Slightly over two thirds (68.35 percent) of SMEs adopted the income approach in budgeting. The remaining proportion of SMEs (31.65 percent) adopted the expenditure approach. Similar observations were made by Oluoch (2016) in a study of Eldoret SMEs. The study sought information on various dimensions of cash budgeting practices used by the SMEs. The likert scale used ranged from 1-5 with 5 being strongly agree with 1 being strongly disagree. As the mean of the means (3.50) indicated, the SMEs had largely implemented budgeting as a cash flow management practice. The average standard deviation (1.21011) further confirmed this state of affairs as it demonstrates that data was tightly held close to the mean. The bigger the standard deviation in relation to the mean, the further apart the responses would be from the mean. The SME largely and regularly implemented cash budgeting practices for all operations. They also largely allocated adequate cash for operations to ensure positive cash flows and made adequate plans for all its cash and cash equivalents. Nonetheless, it was observed that the adequate cash was scarcely set aside to cater for unforeseen negative cash flows. Further, it was observed that the firms only moderately analysed budget deficits and surplus on a monthly basis to ascertain the cause of the deviations. The results support past findings by Oluoch (2016) and Uwonda and Okello (2015) who indicated that SMEs had largely embraced cash budgeting practices. Respondents were further required to indicate the cash budgeting techniques utilized by their SMEs. A further 35.44 percent indicated that the firms used the receipts and payments method. Only a partly 12.66 percent indicated that their SMEs adopted the adjusted profit and loss method. Similar results were presented by Uwonda and Okello (2015).

**Effect of Cash Budgeting Practices on Profitability of SMEs**

Pearson Correlation Analysis was carried out to analyse the relationships among the variables of interest to the study. The analysis method was considered useful as it would demonstrate the nature, strength, direction and significance of the associations between cash budgeting practices and profitability. Cash budgeting as a cash flow management practice demonstrated a strong, positive correlation with profitability. This is evidenced by Pearson correlation coefficient (r=0.662) which indicates a strong and positive relationship between the variables. Further, the P value (0.001), signposts that the relationship between cash budgeting practices and profitability was statistically significant as the value is less than 0.05. The study agrees with Raheman (2010), Oluoch (2016), Uwonda and Okello (2015) and Muthama (2016) who established that cash budgeting practices was positively correlated with profitability.
INFERENTIAL STATISTICS

Table 1 presents the model coefficients. The output is key in determining the effect of each independent variable (cash flow management practices) on profitability. The results also provide evidence regarding the statistical significance or otherwise of the independent variables cash budgeting, cash collection, liquidity control, disbursement control in predicting profitability.

Table 1: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
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<td>.326</td>
</tr>
<tr>
<td>Cash Budgeting</td>
<td>.601</td>
<td>.222</td>
</tr>
<tr>
<td>Cash Collection</td>
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<td>.237</td>
</tr>
<tr>
<td>Liquidity Control</td>
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<td>.126</td>
</tr>
<tr>
<td>Disbursement Control</td>
<td>.523</td>
<td>.320</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Profitability

From the results, it is evident that all the cash flow management variables; cash budgeting, cash collection, had a positive and statistically significant effect on profitability. From the results captured in the coefficients table, the regression model for cash flow management practices and profitability was developed as:

\[ Y_{ij} = 8.021 + 0.601X_1 + 0.562X_2 + 0.325X_3 + 0.523X_4 \]

Where: \( Y_{ij} \) = Profitability; \( X_1 \) = Cash Budgeting; \( X_2 \) = Cash Collection; \( X_3 \) = Liquidity Control; \( X_4 \) = Disbursement Control.

The coefficient for cash budgeting (0.601) indicates that a unit increase in cash budgeting would result to a 0.601 unit increase in profitability. The effect of cash budgeting on profitability is statistically significant because the associated P-Value (0.021) falls below the 5% level of significance. As such, this resulted in rejection of the null hypothesis and a conclusion that cash budgeting has a significant effect on profitability. The study agrees with Raheman (2010), Oluoch (2016), Uwonda and Okello (2015) and Muthama (2016) who established that cash budgeting was a significant determinant of profitability.

CONCLUSIONS AND RECOMMENDATIONS

The study made the following conclusions regarding cash budgeting practices and profitability. It was concluded that the SMEs had largely implemented budgeting as a cash flow management
practice. However, it was concluded that adequate cash was scarcely set aside to cater for unforeseen negative cash flows. Further, analysis of budget deficits and surpluses was not regularly done. The regression analysis results informed a conclusion that cash budgeting practices plays a significant role in influencing the level of profitability of SMEs. Results of the Pearson correlation analysis results led to a conclusion that cash budgeting exhibits a positive relationship with profitability and as such an improvement in cash budgeting would lead to an improvement in profitability.

The study recommends that SMEs’ managers or owners whose entities were performing below standards to consider learning from their peers within the subsector who performed excellently. As cash budgeting practices was found to yield a positive influence on profitability, the study recommends that the SME owners or managers consider addressing the few cash budgeting concerns that were raised through the findings. There is need to ensure that adequate cash is set aside to cater for unforeseen negative cash flows, which was scarcely the case, going by the findings. In addition, there needs to be regular and effective analysis of budget deficits and surpluses to ascertain the cause of the deviations. The study recommends that the government through her agencies such as the National Chamber of Commerce and Industry and the Small and Medium Enterprise Authority consider financial literacy training for SMEs to enlighten them on best practices in cash budgeting practices.

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