THE EFFECT OF MULTIPLE BORROWING ON FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN MACHAKOS TOWN

BY

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DECLARATION

This research project is my original work and has not been presented for a degree at any other university for examination.

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This research project has been submitted for examination with my approval as the University supervisor.

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DEDICATION

I dedicate this project work to my wife, Agnes Kiminza

and

My children Timothy Musembi, Esther Musembi and Abigail Musembi.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CBK   -   Central Bank of Kenya

GDP   -   Gross Domestic Product

MFIs   -   Micro Finance Institutions

MSE   -   Micro and Small Enterprises

SACCOs -   Saving and Credit Cooperative Societies

SMEs   -   Small and Medium Enterprises

SPSS   -   Statistical Package for Social Sciences

ABSTRACT

Small and medium firms frequently choose to finance their business investments by taking out several loans from different banks. In most countries, firms tend to borrow from several banks and most of the small and medium-sized firms patronize several lenders. However, it may have a disastrous effect if borrowers keep accumulating debt with little or no ability to repay. This study seeks to examine the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town. The study adopted a descriptive research design and targeted a population of 2155 registered small and medium enterprises in Machakos Town. A sample of 95 small and medium enterprises was selected using the simple random sampling technique. This study used secondary data, which was collected using a data collection sheet. The data covered a period of 2 years from 2015 to 2016. The collected data was analyzed using descriptive statistics, correlation and regression analysis and was used to establish the relationship between the study variables. The study revealed that the relationship between multiple borrowing and return on assets of SMEs in Machakos Town is negative and insignificant while the relationship between management efficiency and return on assets of SMEs in Machakos Town is negative and significant respectively. The findings indicate that the relationship between size and return on the assets is negative and significant while the relationship between growth opportunity and return on assets of SMEs in Machakos Town is positive and significant. The results further indicate that the relationship between liquidity and return on assets of SMEs in Machakos Town is negative and insignificant. The study concluded that multiple borrowing and liquidity do not significantly affect SMEs financial performance but management efficiency, size and growth significantly affect SMEs financial performance. The study recommended that SMEs should avoid over borrowing since it may affect the firms and recommended that the managers and owners of SMEs should effectively manage their enterprises

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Credit serves as a source of funds to small and medium enterprises (SMEs) that can be utilized in production and sustaining a firm's competitive advantage process. Formal sources of financing SMEs are the commercial banks, merchant banks, and development banks who are the providers of formal sources of finance to SMEs. Informal sources include: family, friends, directors, trade credit, and so on (Eniola & Entebang, 2015). According to Peprah and Koomson, (2014) credit influences SME firm performance positively which transmit to the tier of economic activity in the state. However, the vast majority of small firms borrow for the first time from a single bank and soon afterwards, many of them switch banks and others start to borrow from multiple banks and other informal sources (Farinha & Santos, 2000).

Theoretically, the rational model supports that risk averse borrowers may take multiple loans as a more efficient risk diversification measure without necessarily increasing her loan burden (Lahkar, Pingali & Sadhu, 2012). The information asymmetry theory on the other hand presupposes that lack of information on borrowers' financial history exacerbates the problems related to multiple borrowing (Engel, Behmanesh & Johnston, 2014). According to McIntosh and Wydick (2005) the incentives to multiple borrow depend solely on an exogenous parameter measuring the borrowers' impatience. In other words, borrowers trade off the utility from borrowing more today with the risk of being denied credit access tomorrow.

Small and medium enterprises are very important for employment creation, are important sources of economic growth, and are considered the major source of dynamism, innovation and flexibility in emerging and developing countries (Musando, 2013). Small and medium enterprises have been acknowledged to have a prodigious potential for sustainable development. In emerging economies, it is estimated that SMEs employ about 22% of the adult population (Ansong & Agyemang, 2016). SMEs are some of the businesses in the world that cannot function/survive without an appropriate finance because of the nature of their operations and management style (Odongo, 2014). However, access to credit lures many small and medium sized entrepreneurs into a debt trap. An additional loan can then expose the SME to over-indebtedness and multiple borrowings to repay the past loans or rescheduling of loans to adjust the over-dues do not overcome the problem; the SME borrowers just get some reprieve (Peprah & Koomson, 2014).

In Kenya, the small and medium enterprises sector has continued to play an important role in the economy of this country. The sector's contribution to the gross domestic product (GDP) increased from 13.8% in 1993 to about 20% in 2007 (Mwewa, 2013). SMEs in Kenya have the tendency to serve as sources of livelihood to the poor, create employment opportunities, generate income and contribute to economic growth. They have been seen as the means through which accelerated growth and rapid industrialization have been achieved (Kalui & Omwansa, 2015). According to Boiwa and Bwisa (2014) besides their potential for job creation, SMEs also serve to alleviate other important needs: they elevate the income level of the population, function as a

mechanism for income distribution, and have helped develop an entrepreneurial class in Kenya.

1.1.1 Multiple Borrowing

Multiple borrowing refers to a situation where clients borrow from different institutions at the same time or at regular interval and has the potency of keeping the clients with the financial institution for quite some time (Peprah & Koomson, 2014). According to Diaz et al. (2011), multiple borrowing refers to the practice of availing loans from different sources within the same period. When an individual borrows from more than one financial institution it is called individual multiple borrowing whereas if more than one person from the same household (normal household unit) borrows from the same or different financial institution, it is known as household multiple borrowing (Mia, 2017). The phenomenon of multiple borrowing is sometimes referred to as overlapping. Any household with more than one membership is termed as household overlapping and any individual member having membership with more than one institute is defined as membership overlapping (Institute of Microfinance, 2012).

Multiple borrowing can result when two different kinds of lenders, namely a bank and moneylender, service the same population of borrowers (Tassel, 2014). Multiple borrowing is caused by factors from both the demand and supply sides and poses a credible threat to the long-term sustainability of the sector (Mia, 2017). According to Afroze, Rahman and Yousuf (2014) the key reasons for multiple borrowing are clients rustling and loan pushing from the financial institutions side and loan recycling from the borrowers' side. Repayment problems as well as social and economic pressure can drive

borrowers into a vicious cycle of taking out more and more loans (Engel, Behmanesh & Johnston, 2014). The causes of multiple borrowing reflect both crisis driven motives as well as opportunity-driven ones (Chua & Tiongson, 2012).

Multiple borrowing can bring benefits to clients, but too much can also bring problems. For instance, multiple borrowing ensures a reliable and steady source of funds to cope with financial pressures. However, lack of control and discipline in multiple borrowing can lead to over-indebtedness where the borrower takes more loans than she can repay (Diaz & Ledesma, 2011). Multiple borrowing is a measurement of over-indebtedness and can be used as a proxy for early warnings. Multiple borrowing also represents a person's cycle of debt and a higher risk of loan default. The problem happens in the absence of credit bureaus because borrowers do not know how much they are capable of repaying. The worst-case scenario is when a borrower takes loans to repay existing debt (Mia, 2017).

1.1.2 Financial Performance

Financial performance means firm's overall financial health over a given period of time (Bhunia, Mukhuti & Roy, 2011). Financial performance also refers to the degree to which financial objectives of a firm are being or has been accomplished. Financial performance comprises of financial efficiency measures such as return on investment and return on equity, and profit measures such as return on sales and net profit margin (Sidik, 2012). Financial performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. The goal of such analysis is to determine the efficiency and performance of firm's management, as

reflected in the financial records and reports. The ability of an organization to analyze its financial performance is essential for improving its competitive position in the marketplace (Bhunia et al., 2011).

Financial performance measures are typically derived from or directly related to the chart of accounts and found in a company's profit and loss statement or balance sheet, such as inventory levels or cash on hand (Odongo, 2014; Harash, Al-Timimi & Alsaadi, 2014). Financial performance measurement generally looks at firms' financial ratios such as liquidity ratios, activity ratios, profitability ratios, and debt ratios (Ismaila, 2011). The financial performance of a firm is measured in various ways. However, financial ratios are normally used in measuring and interpreting financial performance and comparison of other company's results in the similar industries or different industries in order to gauge the performance of the companies' sector over a given period (Odongo, 2014). Each of the financial ratios captures a slightly different aspect of financial performance. Some of the measures include like return on assets and return on equity (Vijfvinkel, Bouman & Hessels, 2011).

1.1.3 Multiple Borrowing and Financial Performance

Multiple borrowing is sometimes synonymous with over-indebtedness when monthly loan repayments exceed 50% of income (Mpogole et al., 2012). Over-indebtedness has a negative impact on borrowers' financial status. Because of over-indebtedness, some borrowers further engage in multiple borrowing, which creates even more dire problems. Thus, instead of borrowers gaining financial freedom, they are forced into a debt trap or debt peonage (Mia, 2017). Multiple borrowing may arise due to the inability to calculate

the debt capacity of client due to foreseeable (relying on client's self-reported income figure for debt assessment) and unforeseeable reasons (Agarwal & Srivastava, 2016). Tirri (2007) posits that multiple borrowing is costly for the borrowing firm also because it implies significant transaction costs and can affect both the cost of capital and the quality of the investment projects in different ways.

According to Venkata and Veena (2010) when borrowers resort to multiple borrowings to smooth their cash flows, they must bear a heavy burden. This includes: transaction, opportunity costs and time spent in various group meetings; household over indebtedness; stress of meeting multiple loan payment schedules; increased risk of inability to pay; stress of increasingly unstable joint liability agreements; and ultimately the risk of defaulting. Green and Liu (2015) also posit that the problem of multiple borrowing is exacerbated when borrowers have access to more lenders, providing an explanation of why increased access to finance does not always improve aggregate outcomes.

A study by Farinha and Santos (2000) on the determinants and implications of switching from single to multiple bank lending relationships established that firms with lower profitability and those that more often have bank loans that were past due are more likely to initiate multiple relationships. Additionally, Liv (2013) carried out a study on the drivers of over-indebtedness of microfinance borrowers in Cambodia established that clients with multiple loans, especially three or more loans, were far more likely both to be insolvent and to have struggled to repay. The study also established that clients with insufficient profit from their own business were more likely to be insolvent. Kitala and Kimaro (2014) also found that multiple borrowing by many businesses was one of the

major factors influencing loan repayment in microfinance sector since the ability to repay multiple loans was a challenge

1.1.4 Small and Medium Enterprises in Machakos Town

Small and Medium Enterprises in Kenya are regulated by the Micro and Small Enterprise (MSE) Act No. 55 of 2012 (Odongo, 2014). The SME industry in Kenya is characterized by the employment of between 50 to 200 employees and capital assets of a substantial amount of about Ksh. 2 million (Mbuva, Kimunduu & Shisia, 2015). Lenders in Kenya define SMEs as that business with six to fifty employees or with annual revenue below Ksh. 50 million (Mwewa, 2013). The SME sector in Kenya is considered as one of the major contributors to the economy by providing income and employment to a significant proportion of the population (Nakhaima, 2016). SMEs in Kenya are responsible for about 80% of employment and contribute about 40% to GDP and SMEs are an integral part of the economy, critical in spurring socioeconomic development in Kenya (Yeboah, 2015).

Most small and medium enterprises operating in Machakos Town include wholesalers, accommodation and hospitality, agriculture, technical services, manufactures and private education and health service providers (Agan, 2015). The health of Machakos economy as a whole has a strong relationship with the health and nature of small and micro enterprise sector (Agan, 2015). Just like in the other counties in Kenya, SMEs in Machakos Town are the main driving forces of economic growth and job creation. However, SMEs continue to face constraints that limit their development and financial performance. Lack of access to financial services is one of the main problems facing

SMEs in Kenya. Lack of access to long-term credit for small enterprises forces them to rely on high cost of short term finance (Kung'u, 2011). A study by (Agan, 2015) studied the relationship between innovation and the performance of Small and Medium Enterprises in Machakos Township and found that there is a close relationship between innovation and performance of SMEs, which had embraced innovation surviving longer and being more profitable.

1.2 Research Problem

Small and medium firms frequently choose to finance their business investments by taking out several loans from different banks (Tassel, 2014). According to Bennardo, Pagano and Piccolo, (2009) in most countries, firms tend to borrow from several banks and most of the small and medium-sized firms patronize several lenders. As such, borrowing from different financial institution and investing the finances together in a productive business may enhance the financial performance of small and medium enterprises. However, it may have a disastrous effect if borrowers keep accumulating debt with little or no ability to repay (Mia, 2017). Through multiple borrowing, small and medium enterprises can increase the amount of loan that they can borrow and accumulate more debt than they can repay and imply refinance or turnover existing loans that are ultimately un-payable and enter into a vicious circle of debt and dependency (Chichaibelu & Waibel, 2015). According to Green and Liu (2015), the ability to borrow from multiple lenders is a sign of financial development, yet appears problematic in emerging economies.

In Kenya, the SMEs sector employs 74% of the labour force and contributes over 18% of the country's gross domestic product (Musando, 2013). However, despite the importance of SMEs to the Kenyan economy, Sessional Paper No. 2 of 2005 indicates that three out of five businesses fail within the first three years of operation (Nakhaima, 2016). According to Oluoch (2016), despite the fact that SMEs are major pillars of economic development in Kenya, most SMEs in Kenya are faced with a lot of challenges starting and maintaining businesses in a highly competitive environment in Kenya. Njagi, Kimani and Kariuki (2017) posit that at least 40% of SMEs in Kenya collapse within one year whereas other SMEs are auctioned while some are merged or acquired signifying questionable financial performance due to lack of proper management of debt acquired from various lenders. Additionally, Agan (2015) posits that most of SMEs in Machakos County collapse within six months of their inception hence the need to examine effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town.

Additionally, several authors have studied the effects of multiple borrowing. For instance; in their study, Chalu and Lubawa (2015) assessed the impacts of multiple borrowing on entrepreneur's business performance in Tanzania and found that multiple borrowings had a significant positive influence on gross profit ratio, net profit ratio, and return on equity but the study focused on multiple borrowing on microfinance clients. Afroze, Rahman and Yousuf (2014) also explored the multiple borrowing scenarios and its impact, especially on the loan repayments of the borrowers in Bangladesh and found that the main reason for multiple borrowing was the small size of loans from MFIs and

that people with multiple loans are having more trouble in timely repayments. The study by Afroze et al. (2014) focused on microfinance clients in Bangladesh.

Mwewa (2014) also examined the effects of microfinance services on the growth of small and medium enterprises in Machakos County in Kenya and found that micro credit and training contribute positively to the sales growth while micro insurance affects growth negatively. Kanyare and Mungai (2017) examined the effect of determinants of access to microcredit on financial performance of retailing SMEs and found that savings, meeting the eligibility criterion, loan structuring and some socio-economic characteristics positively and significantly affected the financial performance of SMEs. The studies by Mwewa (2014), Kanyare and Mungai (2017) also focused on microfinance clients. Most of the studies on multiple borrowing show that the incidences of multiple borrowings are on the increase across the world. However, most of the studies on concept of multiple borrowing focus on microfinance clients despite the fact that small and medium entrepreneurs borrow from different institutions both formal and informal. This necessitates an examination of what is the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town?

1.3 Research Objective

To examine the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town.

1.4 Value of the Study

The findings of this study will be of value to the management of small and medium enterprises who may use the findings to determine whether multiple borrowing affect the

performance of their enterprises. Financial institutions may also use the findings to develop effective mechanisms on multiple borrowing to small and medium enterprises.

The findings of the study may also be of significance to policymaking organizations who may use the findings to come up with policy and strategic mechanism on multiple borrowings and effective ways to improve the performance of small and medium enterprises. The findings of the study will also add on to the available theoretical and empirical literature on multiple borrowing and the performance of small and medium enterprises.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter present various theories used for the study, the determinants of SMEs financial performance, the empirical literature review, the conceptual framework and the summary of the literature reviewed.

2.2 Theoretical Literature Review

The information asymmetry theory, the moral hazard theory and the prospect theory will form the underlying theoretical literature underpinning for the study.

2.2.1 Information Asymmetry Theory

The information asymmetry theory emanated from the seminal works of Akerlof (1970), and Rothschild and Stiglitz (1976). Information asymmetry exists when a party or parties possess greater informational awareness pertinent to effective participation in a given situation relative to other participating parties (Barbosa & Marcal, 2011). Information asymmetry deals with the study of decisions in transactions where one party has more or better information than the other. This creates an imbalance of power in transactions, which can sometimes cause the transactions to go awry (Kiptoo, Wanyoike & Gathogo, 2015). Information asymmetry occurs when some economic agents have more information than others do. Consequently, uninformed investors negotiate with informed investors, generating problems related to adverse selection (Barbosa & Marcal, 2011).

According to Farinha and Santos (2000), providing information to a lender is beneficial as it allows for a better evaluation but is risky because it may be leaked to the firm's competitors. Borrowing from a single lender avoids the disclosure of information that occurs when the firm borrows from multiple lenders, but it leads the firm's competitors to infer that the firm is concealing information and react accordingly (Farinha & Santos, 2000). The borrowers' willingness to provide false information forms the basis for loan deviation (Engel, Behmanesh & Johnston, 2014). As such, due to lack of information sharing, multiple borrowing is possible. Multiple borrowing occurs when entrepreneurs seek out cheaper ways to fund their relatively risky business expansions. By concealing their intentions from the banks, the entrepreneurs obtain a lower interest rate by taking out several small loans rather than one larger loan (Tassel, 2014).

Information asymmetries associated with lending to small-scale borrowers normally restrict the flow of finance to smaller enterprises (Nakhaima, 2016). This is because small firms are usually thought of as being informationally opaque and to mitigate the information asymmetries, a bank must take a series of prudent and costly steps to ensure that the loan is repaid (Tassel, 2014). With asymmetric information between competing financial institutions, every loan contract yields a lower profit to the borrower than under the full information benchmark. Additionally, with a greater number of lenders in a market, expect information sharing between lenders to become more difficult, or else equal. This creates an incentive for some (impatient) borrowers to take multiple loans. Such instances of multiple contracting both increase average debt levels among borrowers in the portfolio and decrease the expected equilibrium repayment rate on all loan transactions, generating less-favorable (McIntosh & Wydick, 2005).

2.2.2 Moral Hazard Theory

The moral hazard theory emanated from the seminal works of Arrow (1963) and Pauly (1974). Moral hazard occurs when one party to a transaction takes actions that a trading partner cannot observe, and that affect the benefits the partner receives from the trade (Barbosa & Marcal, 2011). In moral hazard problem one side of the economic activity engages in activities that are undesirable for the other side in terms of their agreement. Moral hazard also arises because an individual or institution does not take the full consequences and responsibilities of its actions. In the banking sector, moral hazard occurs after the money has been disbursed to the borrower and it arises out of the fact that the borrower may have an incentive to breach the loan covenants by investing in projects, which are unacceptable in the eyes of the lender (Bennardo, Pagano & Piccolo, 2009).

The moral hazard problem implies that a borrower has the incentive to default unless there are consequences for his future applications for credit. This result from the difficulty lenders have in assessing the level of wealth borrowers will have accumulated by the date on which the debt must be repaid, and not at the moment of application (Barbosa & Marcal, 2011). According to Farinha and Santos (2000) when firms default because they either cannot meet their debt payments or their managers want to divert cash for themselves, borrowing from multiple lenders may be beneficial, particularly for the less risky firms. Moral hazard can occur after the loan is taken and invested, some unexpected negative shocks can hurt borrowers and their businesses. This can make it impossible for them to repay the loan. Thus, borrowers might decide to take a second loan in order to repay the first, increasing dangerously their level of indebtedness (Casini, 2010).

2.2.3 Prospect Theory

Kahneman and Tversky (1979) developed the prospect theory as a theory of decision-making under conditions of risk. The theory asserts that decisions are based on judgment, where it is difficult to foresee the consequences or outcomes of events with clarity. Prospect theory directly addresses how choices are framed and evaluated in the decision-making process (Kumar, 2010). The prospect theory emerged as an alternative model for analyzing choice under risk and uncertainty, prospect theory is characterized by a value function and a probability weighting function, which over weights small probabilities but under weights high and moderate probabilities (Chen, 2014). Prospect theory is a theory about how people make choices between different options or prospects, is designed to better describe, explain, and predict the choices that the typical person makes, especially in a world of uncertainty (Mwangi, 2013).

The theory describes such decision processes as consisting of two stages, editing and evaluation. In particular, people decide which outcomes they see as basically identical and they set are reference point and consider lower outcomes as losses and larger as gains (Chen, 2014). The theory suggests that, first, people evaluate decision options relative to some reference point, generally the status quo or current state of affairs. When choosing between options that appear to be gains relative to that reference point, people tend to make risk-averse choices; when choosing between options that appear to be losses relative to that reference point, people tend to make risk-seeking choices. The prospect theory helps in the understanding of individual decision-making process, give more insights to help in the credit assessment of borrowers (Kumar, 2010). Prospect theory can

be used to develop an appropriate mechanism to control multiple borrowing to the borrower and to make more reliable assessment of credit risk of the customers.

2.3 Determinants of SMEs Financial Performance

2.3.1 Management Efficiency

Business efficiency is a situation in which an organization maximizes benefit and profit, while minimizing effort and expenditure. The lack of efficiency affects all businesses whether small or big. Inefficiencies in larger businesses may go unnoticed due to the availability of excess resources. Smaller businesses may not survive or fail to grow due to the inefficiencies regardless of the nature of the business (Nakhaima, 2016). Efficiency analysis deals with the relationships between inputs and outputs. Because inputs can be measured in both physical and financial terms, a large number of efficiency measures in addition to financial measures are usually possible (Musando, 2013). A study by Jamali and Asadi (2012) on the relationship between the management efficiency and the firms' profitability concluded that profitability and management efficiency are highly correlated hence improving the management efficiency improves profitability.

2.3.2 Size of the SME

The size of a firm is the amount and variety of production capacity and ability a firm possesses or the amount and variety of services a firm can provide concurrently to its customers. The size of a firm is a primary factor in determining the profitability of a firm due to the concept known as economies of scale, which can be found in the traditional neo classical view of the firm (Niresh & Velnampy, 2014). The size of a firm plays an

16

important role in determining the kind of relationship the firm enjoys within and outside its operating environment. According to Ansong and Agyemang (2016), firm size has been proved to have influence on firm performance. On one hand, larger firms enjoy higher negotiation power over their clients and suppliers. In the light of this, they are able to secure goods from their suppliers at affordable prices, which give them the ability to dictate the direction of market prices. On the other hand, it is in contention that small size family businesses are characterized with low agency costs.

2.3.3 Growth Opportunity

Growth is an organizational outcome resulting from the combination of firm-specific resources, capabilities and routines. A firm's growth opportunities are highly related to its current organizational production activities (Zhou & Wit, 2009). Growth is regarded as the second most important goal of a firm, the most important being firm survival. Aversion to growth has been said to be the principal reason why most SMEs stagnate and decline. Business growth is used to refer to various things, such as increase in total sales volume, increase in production capacity, increase in employment, increase in production volume, increase in the use of raw material and power (Yeboah, 2015). Firm growth can be determined by the degree of effectiveness and capability with which firm-specific resources such as labour, capital and knowledge are acquired, organized, and transformed into sellable products and services through organizational routines, practices, and structure (Zhou & Wit, 2009). Business growth is typically measured using absolute or relative changes in sales, assets, employment, productivity, profits and profit margins (Yeboah, 2015).

2.3.4 Liquidity of the SME

Liquidity refers to the company's ability to pay its obligations. Liquidity and its management determines to a great extent the growth and profitability of a firm. This is because either inadequate liquidity or excess liquidity may be injurious to the smooth operations of the organization (Egbide, Uwuigbe & Uwalomwa, 2013). Effective liquidity management ensures the timely provision of cash resources necessary to support the company's operations. With the use of basic cash management tools and techniques, liquidity becomes a corporate asset that contributes directly to the bottom line (Oluoch, 2016). The more current assets a firm has, the more liquid it is. This implies that the firm has a lower risk of becoming insolvent. Liquidity may be measured by cash conversion cycle, cash level or cash flow.

2.4 Empirical Literature Review

A study by Ravichandran (2016) analyzed the incidence of multiple borrowing, reasons for multiple borrowing, and effects of multiple borrowing on loan repayment from a sample of 100 respondents. The study collected data using self-developed questionnaires issued to the microcredit borrowers, in depth interviews with microcredit group leaders and MFIs' Manager and staff. The research findings showed that the prevalence of multiple borrowing was very high among the respondents as over 80% of the 100 microfinance clients had at least two loans from different MFIs at the same time. The study found that the major reasons for multiple borrowings were loan recycling, insufficient loans from MFIs, and family obligations. The study also found that the age

group, number of dependents of the respondent, previous loan settlement and inadequate loan amounts provided by MFIs significantly influenced the number of loan contracts.

Lahkar, Pingali, and Sadhu (2016) using a survey dataset collected from Andhra Pradesh, India, we test if multiple borrowing is equivalent to over-borrowing. Results suggest that over-borrowing and multiple loans are not necessarily synonymous. As the number of credit agencies in a village increases, the average loan burden of villagers does not increase. We also find evidence of substitution of formal sources of credit for informal ones with increased presence of formal credit institutions. Such substitution is greater with addition of microcredit institutions than with other formal lending agencies. Our results indicate that joint liability setup seems to ensure that individuals at a greater risk of non-repayment are discouraged from obtaining microcredit.

Morobe (2015) examined the effect of micro finance loans on the financial performance of small and medium enterprises in Nairobi County. The study used a descriptive research design and sampled 357 SMEs using stratified random sampling technique and a questionnaire to collect data. Using linear regression model, the study found that microfinance loan influenced financial performance in SME's in Nairobi County largely. The study also found that microfinance loans, age of the SME, and credit accessibility significantly influenced financial performance of SMEs in Nairobi County. The study concluded that microfinance loan influence financial performance in SME's in Nairobi County to a very great extent.

Chichaibelu and Waibel (2015) also examined the dynamic interdependency between over-indebtedness and multiple borrowing in the context of micro-borrowers in Thailand

and Vietnam using the dynamic random effect bivariate probit model. The findings of the study established that taking multiple borrowing simultaneously does positively influence household's risk of becoming over-indebted in Thailand, while in Vietnam it had no significant influence on household's risk of over-indebtedness. The study concluded that over-indebtedness reinforces households to refinance ultimately un-payable debts and trap households into a perpetual debt cycle.

Mungure (2015) examined the impacts and causes of loan default to MFIs activities in Tanzania using a case study design. The study focused on the impacts of loan default on MFIs operational costs, income, profit and lending, examining extent in which loan supervision, monitoring and control affects loan repayment, identifying whether multiple borrowing by clients leads to loan default. The study sampled 100 clients and 10 loan officers using simple random sampling and purposive sampling techniques. The study findings revealed that interest rates charged on loans, diverting funds from its intended use, multiple borrowing had a direct impact on repayment.

Kalui and Omwansa (2015) studied the effects of microfinance institutions` on financial performance of small and medium enterprises in Machakos Town. The study employed a descriptive research design, sampled 372 SMEs and used questionnaires to collect data. The findings of the study revealed that the MFIs` products offered (micro savings, micro credit, micro insurance and training) have effects on the financial performance of SMEs. The study recommended that MFIs have a great responsibility of ensuring the proper use of credit, which is an important facility in financial performance of businesses.

Kiptoo, Wanyoike and Gathogo (2015) assessed the influence of cross borrowing on financial performance of Savings and Credit Co-operatives in Eldama Ravine Sub-County. The study assessed the effect of adverse selection and credit policies on financial performance of SACCOs, collected data using a structured questionnaire from a sample size of 107 respondents. The study found that adverse selection strongly influences financial performance than credit policy. The study recommended that since adverse selection was a significant factor, SACCOs should share credit information between themselves and with other lenders.

Peprah and Koomson (2014) studied the causes of microcredit addiction to provide recommendations that will enable the addicted clients to break away from this craving. The paper reviewed literature on social and financial impact of microfinance and finds that failure of microfinance in the delivery of its core mandate of poverty reduction results in clients' addiction to micro-credit and, eventually, inhibits their social and financial mobility. The study found that the up-scaling intentions of MFIs, compulsory savings, high interest rates and transactions costs, multiple borrowing, client's inability to save for the future and, surprisingly, clients' satisfaction with MFIs' products and services were some of the factors that make clients get addicted to micro-credit.

Boiwa and Bwisa (2014) studied the effects of multiple borrowing on the living standards of microfinance clients at Kenya Women Finance Trust, Trans Nzoia Region. The study used descriptive research design and collected data from 47 clients using structured questionnaires and document analysis. The study research found that the major reasons for multiple borrowing were insufficient loans from MFIs, loan recycling, and family obligations. The study also found that over 70% of the respondents had problems in loan

repayment because of multiple pending loans and that education level and number of dependents of the respondent significantly influenced the number of loan contracts. The study also found a strong relationship between multiple borrowing and investment of client's variables and recommended that in order to control the incidences of multiple borrowing Micro finance institution should devise a way of sharing clients' loan information.

Akinyi (2014) explored the effect of bank financing on the financial performance of SMEs in Nairobi County through a descriptive research design. The study used secondary data, which was obtained, from the KPMG Top 100 SMEs survey in Kenya over a period of 5 years (2009-2013). The study found that bank financing and SMEs size positively affected the SMEs financial performance while SMEs tangibility had an inverse relationship with the SMEs financial performance. The study concluded that there exists a significant positive relationship between bank financing and the financial performance of SMEs based in Nairobi County, Kenya. The study recommended that the CBK should continuously reform the terms of bank financing to increase SMEs access-to-access credit from the financial institutions.

Enevirathne et al. (2013) explored whether multiple borrowing facilities of microfinance lead for over indebtedness among paddy farmers in Sri Lanka. The study collected primary data through face-to-face interviews, from 60 respondents using cluster-sampling technique. The study employed descriptive and inferential statistical analysis to analyze the data. The findings of the study established that; gender, type of income, net monthly income, multiple borrowing had significant impact on level of over-indebtedness among paddy farmers in Sri Lanka.

Mpogole et al. (2012) analyzed the incidences of multiple borrowing, reasons for multiple borrowing, and effects of multiple borrowing on loan repayment at Iringa municipality in Tanzania. The findings of the study found that prevalence of multiple borrowing at Iringa in Tanzania was very high and over 70% of the 250 microfinance clients had at least two loans from different MFIs at the same time. The study also found that 16% had also borrowed from individual lenders and the major reasons for multiple borrowing were insufficient loans from MFIs, loan recycling and family obligations. The study also found that over 70% of the respondents had problems in loan repayment because of multiple pending loans.

Kung'u (2011) investigated the factors that influence SMEs' access to funding with focus on firms, financial and entrepreneurial characteristics. The study collected primary data through questionnaire and interviews. The study concluded that the financing gap, in the credit market, that exists between large and small companies need to be abridged. The study recommended that creating an enabling environment for SMEs, formulating regulatory framework that is SMEs' friendly, segmenting NSE for SMEs' listing could bridge the financing gap. The study also recommended that SMEs should keep good financial reports and to form linkages or associations to ease the burden of accessing funds.

Casini (2010) analyzed an oligopolistic microcredit market characterized by asymmetric information and institutions that can offer only one type of contract. The study focuses on the effects of competition on contract choice when small entrepreneurs can borrow from more than one institution due to the absence of credit bureaus. The study found that an appropriate contract design can eliminate the ex-ante incentives for multiple borrowing.

The study concluded that when the market is still largely un-served and particularly risky, a screening strategy leading to contract differentiation and credit rationing is unambiguously the most effective to avoid multiple borrowing.

Krishnaswamy (2007) analyzed the extent of multiple borrowing between MFI clients in a competitive state in India. The findings of the study found that multiple borrowers had an equal or better repayment records than their single borrowing peers in the same villages. The study also established that repayment performance does not worsen in more competitive locations for most of the MFIs which suggests that good risk management, screening and monitoring by those MFIs and that there was collective behaviour in multiple borrowing.

2.5 Conceptual Framework

This study seeks to examine the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town. Theoretically, the information asymmetry among borrowers and lenders creates an incentive for some (impatient) borrowers to take multiple loans. Such instances of multiple contracting both increase average debt levels among borrowers and affects their enterprises financial performance. Additionally, the moral hazard theory indicates that the moral hazard problem can occur after the loan is taken and invested, some unexpected negative shocks can hurt borrowers and their businesses. Thus, the independent variable of the study will be multiple borrowing while the dependent variable will be financial performance. The study will also incorporate management efficiency, size of the SME, growth opportunity, and

liquidity of the SME as control variables. Figure 2.1 shows the conceptual framework of the study.

Figure 2.1 Conceptual Model

```
┌─────────────────────────┐              ┌─────────────────────────┐
│  Independent variable   │              │   Dependent variable    │
│                         │─────────────▶│                         │
│  • Multiple Borrowing   │              │  • Financial Performance│
└─────────────────────────┘              └─────────────────────────┘
                                │
                ┌───────────────────────────────┐
                │      Control Variables         │
                │   • Management efficiency      │
                │   • Size                       │
                │   • Growth opportunity         │
                │   • Liquidity                  │
                └───────────────────────────────┘
```
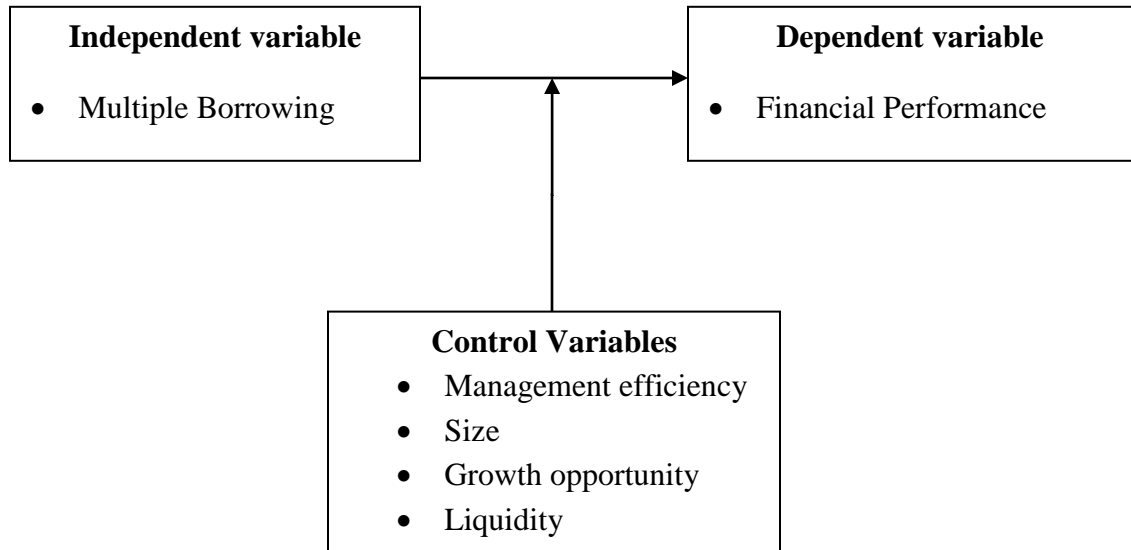
Source: Researcher (2017)

2.6 Summary of Literature Review

This chapter reviewed several studies on multiple borrowing and financial performance of small and medium enterprises as studied by various authors. For instance, a study by Ravichandran (2016) analyzed the incidence of multiple borrowing, reasons for multiple borrowing, and effects of multiple borrowing on loan repayment while Lahkar, Pingali, and Sadhu (2016) analyzed whether multiple borrowing is equivalent to over-borrowing. Morobe (2015) studied the effect of micro finance loans on the financial performance of SMEs while Chichaibelu and Waibel (2015) examined the dynamic interdependency between over-indebtedness and multiple borrowing. Additionally, Mungure (2015) found that multiple borrowing had a direct impact on repayment. However, most of these

studies have been carried out within microfinance clients as opposed to clients who borrow from various financial institutions.

Further, in their study Kiptoo, Wanyoike and Gathogo (2015) assessed the influence of cross borrowing on financial performance while Boiwa and Bwisa (2014) found that major reasons for multiple borrowing were insufficient loans from MFIs, loan recycling, and family obligations. In addition, Casini (2010) also found that an appropriate contract design can eliminate the ex-ante incentives for multiple borrowing whereas Krishnaswamy (2007) found that multiple borrowers had an equal or better repayment records than their single borrowing peers. As such, most studies in Kenya cite lack of planning, financing and poor management, lack of credit and the level of education of entrepreneurs have been listed as the major challenges facing SMEs. Additionally, from the study findings it is clear that incidences of multiple borrowing from different lenders and its effects on financial performance of small and medium enterprises have not been conclusively studied thus an empirical literature gap, which this study intends to fill be examining the effect of multiple borrowing on financial performance of SMEs in Machakos Town.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter previews the research design, the study population and the sample design. The chapter also previews the data collection procedure and the data analysis techniques.

3.2 Research Design

A research design is the plan and structure of investigation conceived as to obtain answers to the research objectives. This study adopted a descriptive research design. A descriptive research includes surveys and fact-finding enquiries and describes the state of affairs, as it exists at present. Additionally, a descriptive research design is concerned with determining the frequency with which phenomena occurs or the relationship among the study variables (Cooper& Schindler, 2009). The aim of this study was to establish the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town therefore a descriptive research design helped to determine the status of the phenomenon and to find out the effects of the phenomenon.

3.3 Population of the Study

A population is a well-defined or a set of people, services, elements, and events, group of things or households that are being investigated (Cooper & Schindler, 2009). This study targeted a population of 2155 registered small and medium enterprises in Machakos Town. According to the Machakos County Fiscal Report (2016), there are 2155 registered small and medium enterprises in Machakos Town.

3.4 Sample Design

A sample design is a definite plan determined before any data are actually collected for obtaining a sample from a given population. According to Cooper and Schindler (2009) the sample should be optimum and an optimum sample is one, which fulfills the requirements of efficiency, representativeness, reliability, and flexibility. Thus, a sample of 95 small and medium enterprises was selected using the Yamane's (1967) formula. The SMEs were randomly selected using the simple random sampling technique.

$$n = \frac{N}{1 + N(e^2)} \, Thus: n = \frac{2155}{1 + 2155(0.1^2)} = 95$$

Where

n = sample size

N = Population (2155)

e = expected error (0.1)

3.5 Data Collection

This study used secondary data, which was collected using a data collection sheet. The data collection sheet was self-administered to the managers and owners of the sampled small and medium enterprises in Machakos Town. The data covered a period of 2 years from 2015 to 2016.

3.6 Diagnostic Tests

The study carried out tests on multicollinearity, normality and autocorrelation. Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly related and was tested using correlation analysis and the variance inflation factors. Normality was tested using skewness and kurtosis. Autocorrelation (independence of observations) was tested using the Durbin Watson test.

3.7 Data Analysis

The collected data was analyzed using descriptive and inferential statistics using the statistical package for social sciences (SPSS). Descriptive statistics was used to summarize the collected data using the mean, variances and standard deviation. Inferential statistics included correlation and regression analysis and was used to establish the relationship between the study variables.

3.7.1 Analytical Model

The regression equation will be as follows

$$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where

Y = Financial performance measured using return on assets (ROA)

X_1 = Multiple borrowing measured using the number of borrowing per SME

X_2 = Management efficiency measured using the operating cost ratio, which is the

ratio of total operating expense over total revenue

X_3 = Size of the firm measured using the natural log of total assets

X_4 = Growth opportunity measured using the sales ratio, which is ($Sales_{t+1}$ −

$Sales_t$ /$Sales_t$)

X_5 = Liquidity measured using the current ratio

β_o = Constant

$\beta_1 - \beta_5$ = Regression coefficients

ε = Probable error

3.7.2 Test of Significance

To test the statistical significance of the regression equation the F test was used. To test

the significance of the individual variables the t test was used. Both the F and t test was

carried at 95% confidence level. Additionally, the study used the coefficient of

determination (R square) to determine the variation explained by the independent

variables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This chapter contains the response rate results, the descriptive summary statistics, correlation and regression analysis findings and finally the interpretation of the research findings.

4.2 Response Rate

This study targeted a sample of 95 small and medium enterprises in Machakos Town and collected secondary data over a period of two years from 2015 and 2016. However, complete data was obtained from 69 SMEs, which generated a response rate of 72.6%, which was considered sufficient for the study.

4.3 Descriptive Statistics

Descriptive statistics entailed the number of observations (N), the mean and the standard deviation. Additionally, skewness and kurtosis, which are measures of normality, the maximum and minimum values formed the descriptive results. ROA was determined using the ratio of net income to total assets, while multiple borrowing was determined using the number of borrowings per SME whereas management efficiency was determined using operating expenses to total revenue ratio. Additionally, size was determine using the natural log of total assets whereas growth opportunity was measured using the revenue growth ratio while liquidity was measured using the current ratio. Table 4.1 show the obtained results

Table 4.1 Descriptive Statistics

	ROA	Multiple borrowing	Management efficiency	Size	Growth opportunity	Liquidity
N	138	138	138	138	138	138
Mean	.07950	2.32	1.20822	14.7953	-.00962	2.50447
Std. Deviation	.14513	1.372	1.713633	1.00424	1.164711	1.63702
Skewness	-.383	.490	1.173	1.420	.350	1.698
Kurtosis	1.237	-.173	1.729	1.294	.715	1.546
Minimum	-.130	0	-5.454	12.367	-3.922	.133
Maximum	.375	6	8.241	19.126	5.017	8.913

Source: Research Finding

The results on table 4.1 show that the average return on asset of the SMEs is 0.07950, which indicates that the SMEs average performance is 7.95% with the minimum ROA being -0.13 and the maximum being 0.375. The results indicate that the average number of multiple loans was 2.32 with minimum and maximum values of 0 and 6. This indicates that most of the SMEs in Machakos Town had an average of two loans.

The findings indicate that the average value of management efficiency and average size in terms of natural log are 1.208 and 14.795 respectively. The results further indicate that the average growth value is -0.00962, which indicates that there is a negative growth among SMEs in Machakos Town over the last two years. The results also indicate that the average liquidity of the SMEs is 2.504. The skewness and kurtosis values indicate that the data is normally distributed since all the values are less than two.

4.4 Correlation Analysis

Correlation was used to establish the strength of the relationship among the research variables. A strong correlation exists when the correlation coefficient is above 0.5 and weak correlation exists when the correlation is less than 0.5. The negative and positive signs indicate the direction of the relationship. Table 4.2 shows the correlation results.

Table 4.2 Correlation Matrix

	ROA	Multiple borrowing	Management efficiency	Size	Growth opportunity	Liquidity
ROA	1					
Multiple borrowing	-.054	1				
Management efficiency	.038	-.041	1			
Size	-.193*	.213*	-.053	1		
Growth opportunity	-.119	.247**	.003	.325**	1	
Liquidity	-.045	-.109	.129	.208*	.164	1

*. Correlation is significant at the 0.05 level (2tailed).
**. Correlation is significant at the 0.01 level (2tailed).
Source: Research Finding

The findings on table 4.2 shows that the correlation between multiple borrowing, size, growth opportunity, liquidity and return on assets is weak and negative as indicated by correlation coefficients of -0.054, -0.193, -0.119 and -0.045 respectively. The results further show that the correlation between management efficiency and return on assets is weak and positive as indicated by the correlation value of 0.038.

4.5 Regression Analysis

Regression analysis was used to determine the existing relationship between the dependent variable and the independent variables. Regression results entail the model summary, the Analysis of Variance (ANOVA) and the coefficient results.

4.5.1 Model Summary

The model summary entails the R-value, which is the correlation coefficient, the R square value which is the coefficient of determination and a measure of explained variation. The model summary also entails the adjusted R square, the standard error of estimate and the Durbin Watson statistics, which is a measure of autocorrelation. Table 4.3 shows the results

Table 4.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.563[a]	.317	.291	.59586	1.622

a. Predictors: (Constant), Liquidity, Multiple borrowing, Management efficiency, Growth opportunity, Size
b. Dependent Variable: ROA
Source: Research Finding

The results on table 4.3 indicates that 31.7% of the variation in the dependent variable (Financial performance) is explained by the independent variable (multiple borrowing) and the control variables (management efficiency, size, growth and liquidity). The correlation coefficient value of 0.536 indicates that there is a strong correlation between the dependent and the independent variables. The Durbin Watson statistic of 1.622 lies between 1.25 and 2.50 which indicates that there is no serial correlation among the study variables.

4.5.2 Analysis of Variance

Analysis of variance (ANOVA) shows the F statistics value and the p value on whether the regression model is significant or not. Table 4.4 shows the obtained results.

Table 4.4 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.784	5	4.357	12.271	.000[b]
	Residual	46.866	132	.355		
	Total	68.650	137			

a. Dependent Variable: ROA
b. Predictors: (Constant), Liquidity, Multiple borrowing, Management efficiency, Growth opportunity, Size
Source: Research Finding

The findings on table 4.4 indicate that the F statistics value is 12.271 whereas the P value is 0.00 hence less than 0.05 significance value. This indicates that the regression model is

significant and can be used to predict the relationship between multiple borrowing and financial performance of small and medium enterprises in Machakos Town.

4.5.3 Regression Coefficients

The coefficients results show the relationship between the individual independent variables and the dependent variables and whether the relationship is significant or insignificant. Table 4.5 indicates the results

Table 4.5 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.640	.802		3.291	.001		
	Multiple borrowing	-.022	.039	-.043	-.565	.573	.888	1.126
	Management efficiency	-.177	.030	-.428	-5.884	.000	.977	1.024
	Size	-.284	.055	-.402	-5.164	.000	.838	1.194
	Growth opportunity	.182	.048	.134	3.792	.000	.844	1.184
	Liquidity	-.005	.033	-.012	-.151	.871	.897	1.115

a. Dependent Variable: ROA
Source: Research Finding

From the findings on table 4.5 leads to the following regression

$$Y = 2.640 - 0.022X_1 - 0.177X_2 - 0.284X_3 + 0.182X_4 - 0.005X_5 + \varepsilon$$
$$\quad\quad (-0.565) \quad\quad (-5.884) \quad\quad (-5.164) \quad\quad (3.792) \quad\quad (-0.151)$$

Table 4.5 indicates that the relationship between multiple borrowing and return on assets of SMEs in Machakos Town is negative (B = -0.022) and insignificant (P value = 0.573>0.05) while the relationship between management efficiency and return on assets of SMEs in Machakos Town is negative (B = -0.0177) and significant (P value = 0.000<0.05) respectively. The findings indicate that the relationship between size and

return on the assets is negative (B = -0.284) and significant (P value = 0.000<0.05) while the relationship between growth opportunity and return on assets of SMEs in Machakos Town is positive (B = 0.182) and significant (P value = 0.000<0.05) respectively.

The results further indicate that the relationship between liquidity and return on assets of SMEs in Machakos Town is negative (B = -0.005) and insignificant (P value = 0.871>0.05). The table also indicates that there is no multicollinearity between the dependent and independent variables as indicated by the tolerance levels, which are above 0.2, and the variance inflation factors, which are all less than 10.

4.6 Discussion of the Findings

The study results established an insignificant negative relationship between multiple borrowing and return on assets of SMEs in Machakos Town. This means that multiple borrowing does not significantly affect the financial performance of SMEs in Machakos Town. Chichaibelu and Waibel (2015) however concluded that over-indebtedness reinforces households to refinance ultimately un-payable debts and trap households into a perpetual debt cycle. Boiwa and Bwisa (2014) found a strong relationship between multiple borrowing and investment of client's variables and recommended that in order to control the incidences of multiple borrowing Micro finance institution should devise a way of sharing clients' loan information.

The research found a significant and negative relationship between management efficiency and return on assets of SMEs in Machakos Town. This means that management efficiency significantly and negatively affects the financial performance of SMEs in Machakos Town. A study by Jamali and Asadi (2012) on the relationship

36

between the management efficiency and the firms' profitability concluded that profitability and management efficiency are highly correlated hence improving the management efficiency improves profitability.

The research found a significant and negative relationship between size and return on assets of SMEs in Machakos Town. This means that size of the SME significantly and negatively affects the financial performance of SMEs in Machakos Town. According to Ansong and Agyemang (2016), firm size has been proved to have influence on a firm's performance. On one hand, larger firms enjoy higher negotiation power over their clients and suppliers.

The research found a significant and positive relationship between growth opportunities and return on assets of SMEs in Machakos Town. This means that growth opportunities significantly and positively affect the financial performance of SMEs in Machakos Town. Zhou and Wit (2009) states that a firm's growth opportunities are highly related to its current organizational production activities and therefore growth is regarded as the second most important goal of a firm, the most important being firm's survival.

The research found an insignificant and negative relationship between liquidity and return on assets of SMEs in Machakos Town. This means that SMEs liquidity does not significantly affect the financial performance of SMEs in Machakos Town. Oluoch (2016) however states that effective liquidity management ensures timely provision of cash resources necessary to support the company's operations. Therefore, with the use of basic cash management tools and techniques, liquidity becomes a corporate asset that contributes directly to the bottom line.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section briefly summarizes the findings of the research, provides the study conclusions and the research recommendations. The chapter also indicates the research limitations and suggests areas, which may require further research.

5.2 Summary

This study aimed at determining the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town. The information asymmetry theory, the moral hazard theory and the prospect theory forms the underlying theoretical literature underpinning for the study. The independent variable of the study was multiple borrowing while the dependent variable was financial performance. The study also incorporates management efficiency, size of the SME, growth opportunity, and liquidity of the SME as control variables. This study targeted a sample of 95 small and medium enterprises in Machakos Town and collected secondary data over a period of two years from 2015 and 2016 but complete data was obtained from 69 SMEs, which generated a response rate of 72.6%, which was considered sufficient

The results of descriptive statistical analysis established that the average return on asset of the SMEs was 0.07950 whereas the average number of multiple loans was 2.32 while the average value of management efficiency and average size in terms of natural log were 1.208 and 14.795 respectively. The results established that the average growth value was

-0.00962 and the average liquidity of the SMEs was 2.504 respectively. The correlation analysis results established that multiple borrowing, size, growth opportunity, liquidity and return on assets is weak and negative but the correlation between management efficiency and return on assets is weak and positive.

The regression analysis results established that 31.7% of the variation in the dependent variable (Financial performance) was explained by the independent variable (multiple borrowing) and the control variables (management efficiency, size, growth and liquidity). The ANOVA results established that the regression model was significant. The coefficients results revealed that the relationship between multiple borrowing and return on assets of SMEs in Machakos Town is negative and insignificant while the relationship between management efficiency and return on assets of SMEs in Machakos Town is negative and significant respectively. The findings indicate that the relationship between size and return on the assets is negative and significant while the relationship between growth opportunity and return on assets of SMEs in Machakos Town is positive and significant. The results further indicate that the relationship between liquidity and return on assets of SMEs in Machakos Town is negative and insignificant.

5.3 Conclusion

The findings of the study found an insignificant negative relationship between multiple borrowing and return on assets of SMEs in Machakos Town. The study based on this finding concludes that multiple borrowing does not significantly affect the financial performance of SMEs in Machakos Town. The study findings found an insignificant and negative relationship between liquidity and return on assets of SMEs in Machakos Town.

The study based on this finding concludes that SMEs liquidity does not significantly affect the financial performance of SMEs in Machakos Town.

The findings of the research revealed a significant and negative relationship between management efficiency and return on assets of SMEs in Machakos Town. The study based on this finding concludes that management efficiency significantly and negatively affects the financial performance of SMEs in Machakos Town. The research found a significant and negative relationship between size and return on assets of SMEs in Machakos Town. The study based on this finding concludes that size of the SME significantly and negatively affects the financial performance of SMEs in Machakos Town.

The research results found a significant and positive relationship between growth opportunities and return on assets of SMEs in Machakos Town. The study based on this finding concludes that growth opportunities significantly and positively affect the financial performance of SMEs in Machakos Town.

5.4 Recommendations

The findings of the study led to the conclusion that multiple borrowing does not significantly affect the financial performance of SMEs in Machakos Town. The study however recommends that SMEs should avoid over borrowing since multiple loans can reduce the company earnings due to payment of interest and the loan principal.

The study concluded that management efficiency significantly and negatively affects the financial performance of SMEs in Machakos Town. The study thus recommends that the

owners and managers of SMEs should ensure that their enterprises are managed effectively to enhance their performance.

The research findings led to the conclusion that size of the SME significantly and negatively affects the financial performance of SMEs in Machakos Town. Thus, the study recommends that the management and owners of SMEs should invest more in assets since assets are vital in generating sales and improving financial performance of SMEs.

The findings of the study led to the conclusion that growth opportunities significantly and positively affect the financial performance of SMEs in Machakos Town. The study therefore recommends that the management of SMEs should strive to maximize sales since sales maximization enhance the growth of SMEs and improves their financial performance.

The research findings led to the conclusion that SMEs liquidity does not significantly affect the financial performance of SMEs in Machakos Town. Nevertheless, the study recommends that the management and owners of SMEs should ensure that they maintain adequate liquidity in their enterprises since liquidity is vital for meeting current obligations as and when they fall due.

5.5 Limitations of the Study

The context of this study was SMEs in Machakos Town. Therefore; the findings are applicable to SMEs within Machakos Town and not all the SMEs in Machakos County. In addition, the findings may not be generalized to SMEs in other towns and counties in Kenya since they operate in different ways and under different terms and legal framework.

Secondly, the study used secondary data, which were administered to the SMEs managers. However, some SMEs did not have well maintained records hence the enterprises were not incorporated as part of the sample. Additionally, complete data was not obtained from all the targeted SMEs.

5.6 Suggestion for Further Research

The results of the regression model summary established that 31.7% of the variation in the dependent variable was explained by the independent variables. This indicates that the considered variables accounted for 31.7% of the variation in SMEs financial performance hence there are other factors, which affect SMES financial performance. The study suggests an additional study on the other factors that influence SMEs financial performance.

In addition, to measure multiple borrowing the study obtained the number of loans the SMEs had obtained within two years from 2015 to 2016. The study recommends that a similar study be carried out but the amount of loan borrowed by the Small and medium enterprises be used as the measure for multiple borrowing. Another study can be carried out on the effect of multiple borrowing on liquidity of small and medium enterprises.

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APPENDICES

Appendix I: Data Collection Sheet

Dear respondent,

I am a student at the University of Nairobi carrying out a study on the effect of multiple borrowing on financial performance of small and medium enterprises in Machakos Town. The study is academic in nature and aims at fulfilling the requirement for the award of a degree in Master of Business Administration (MBA). The information provided will be used for academic purposes. Please fill where appropriate.

SME No_____

Item	2015	2016
Number of borrowings		
Sales		
Total operating costs		
Net income(profit)		
Total assets		
Current assets		
Current liabilities		

Thank you

Appendix II: Research Data

SME no	Year	No of borrowings	Sales	Operating costs	Net income	Total assets	Current Assets	Current liabilities
1	2016	3	250812	168000	16800	1554706	250380	189780
	2015	3	312412	210000	210000	828200	350100	312000
2	2016	5	312944	93460	56720	960236	280118	18900
	2015	2	179218	44855	37000	2858640	179320	120340
3	2016	3	2809582	620000	820314	3780944	940312	380312
	2015	0	1000419	780000	410340	3062002	780001	350714
4	2016	2	820481	109320	780000	1605008	292304	207000
	2015	2	780000	178413	600210	1170938	160312	100000
5	2016	0	480374	235412	282300	920900	320000	287007
	2015	1	320412	187000	270001	1274372	200000	187321
6	2016	4	950380	383412	720300	2140142	470071	600200
	2015	3	730200	380000	412317	2020620	370310	108004
7	2016	5	476320	60000	210000	557000	250000	176000
	2015	4	320450	42000	100320	900000	200000	132000
8	2016	3	5785000	2000500	1550000	8730000	3080000	1200000
	2015	4	7503001	3200535	2000000	15020000	5350000	2850000
9	2016	3	8000450	7250000	3300000	23920000	8570000	7800030
	2015	3	7500650	6700030	2000000	16751600	4000800	6200000
10	2016	1	1020000	115000	90000	1120000	501000	107000
	2015	2	800000	75000	400000	125000	30000	45000
11	2016	3	3601252	1090721	2000000	3203400	700000	132000
	2015	3	3357302	1020000	2250000	20823400	9510000	120418
12	2016	4	8350000	1200034	850000	2320000	350000	250000
	2015	4	8000000	950000	704000	2290000	320000	200000
13	2016	1	200000	850000	-103000	276250	88000	37000
	2015	1	250000	700000	20000	190000	45000	20000
14	2016	3	1807201	1020000	705350	3002000	850000	200650
	2015	2	1500000	999007	-800000	1907000	500000	431220
15	2016	5	380000	130025	75000	440000	125000	940479
	2015	3	370000	125750	55000	390000	120000	180307
16	2016	1	5300000	950750	679780	2402682	700341	120785
	2015	4	8004750	1051000	100000	2306405	402780	151250
17	2016	3	2001340	850000	134000	3180000	800000	357878
	2015	5	1875430	700000	150000	3104000	802000	200912
18	2016	3	850000	180000	245000	400000	100000	136000
	2015	1	380000	190000	175000	190000	25000	180000
19	2016	4	480900	189800	291100	4141010	1250480	389600

	2015	6	794650	380000	414650	3311200	980600	369400
20	2016	4	7000821	1240000	750000	4603582	300501	650000
	2015	3	5612400	900000	200000	4600955	300427	90000
21	2016	3	2001000	1000347	720000	2694000	870000	340000
	2015	1	1700342	957000	880000	3120000	810000	204000
22	2016	4	4900847	801000	450000	1147200	450000	185000
	2015	5	3600241	700421	344431	1380004	440000	250000
23	2016	1	250240	1020000	200000	314000	82000	51000
	2015	2	150000	100200	170000	288400	70200	45100
24	2016	0	630000	300000	301000	1200000	210000	230000
	2015	1	750000	410000	330000	1060000	190000	370000
25	2016	4	3787212	1150000	3200000	4800412	1600000	18000000
	2015	4	2400000	1340000	2000000	15734000	7000000	70000000
26	2016	1	159000	92000	72000	134000	22000	30000
	2015	1	190000	105000	60000	223000	70000	20000
27	2016	2	1430000	730000	920000	2389000	705000	470000
	2015	1	900000	300000	600000	1990000	630000	230000
28	2016	3	5000000	2100000	3400074	30040810	2150000	210340
	2015	3	1520000	2500000	8000340	22210314	200000	100000
29	2016	1	720000	270000	620321	1637142	327414	200000
	2015	1	950000	410320	510314	1277844	230420	180412
30	2016	2	2180000	814124	9800131	14174214	60714012	58000
	2015	4	1800000	742314	8074924	11812382	50049914	23000
31	2016	3	450250	200000	280400	720404	100200	80000
	2015	0	794650	380000	414650	3311200	980600	369400
32	2016	2	492314	217310	210780	1678342	345634	244340
	2015	1	380000	108421	289421	1020148	120074	177316
33	2016	2	380000	247824	1500000	1621574	390787	250181
	2015	1	934004	520849	494318	1264698	242349	200300
34	2016	4	9200310	420810	5891721	7800600	1000300	600789
	2015	4	8412000	750001	3521701	7777003	950000	400000
35	2016	1	900000	210122	780000	1860656	290171	21800
	2015	6	950312	38000	540000	1710840	230420	189112
36	2016	3	120340	972220	827687	1350000	200000	198000
	2015	6	782417	750820	320147	1440540	370270	198000
37	2016	3	7500200	814842	1882411	3000000	750000	90000
	2015	5	7903421	962342	1230000	2800787	900000	124328
38	2016	5	500187	186231	378436	1986255	498456	300000
	2015	6	900131	273143	443172	1728521	387142	296144
39	2016	2	1000328	741321	400321	3201257	991722	52388
	2015	1	900147	850000	78871	2808578	800789	40000

40	2016	5	650800	323122	318016	2386267	593127	304044
	2015	3	400000	184000	195111	2035652	567327	254580
41	2016	4	1580000	789402	650320	3150680	650340	382142
	2015	4	1500421	721312	552801	3056640	628320	272820
42	2016	2	8000342	747009	1080000	3299112	1009000	80000
	2015	2	8000000	2500	1020000	3131302	980000	200000
43	2016	3	2338475	900021	1300570	3714978	862500	537436
	2015	4	2606885	969544	1655617	3589978	800000	494084
44	2016	2	980492	467512	980000	1618400	459200	85668
	2015	1	802858	529876	968159	979551	145424	61017
45	2016	2	1975023	985700	772345	3066269	752121	270000
	2015	2	1025000	900500	850727	3001362	750681	360000
46	2016	3	1237017	320000	781342	2644720	431210	375700
	2015	3	968159	249500	484136	1819922	372000	321741
47	2016	2	667691	466865	400000	584993	145424	62969
	2015	2	875230	429421	448424	551689	145709	88709
48	2016	2	850342	249500	180620	813439	221710	135010
	2015	1	800000	249500	163125	912406	230017	120000
49	2016	3	2407340	797009	1000230	3075062	927321	450753
	2015	2	1572321	800320	980000	2669441	834210	378020
50	2016	2	978000	450005	310045	1051040	118015	21005
	2015	1	850000	410000	70000	1225010	205000	23000
51	2016	3	810212	173000	280314	3134640	950320	700000
	2015	3	750000	152143	72000	3640444	980000	620000
52	2016	2	950000	225749	574251	2186240	539620	313619
	2015	6	1250000	529650	617325	2654520	432760	231700
53	2016	1	820000	290000	505000	2181580	630790	293000
	2015	2	680000	210000	470000	1740000	520000	197000
54	2016	1	330000	470000	800000	10300000	4200000	160000
	2015	3	230000	370000	700000	9000000	3700000	120000
55	2016	4	870351	600000	900000	2540150	670000	374360
	2015	3	670129	465000	879000	2092190	550650	387000
56	2016	1	432650	370000	492370	1611300	405650	124000
	2015	2	379000	263500	350000	1489350	350000	138900
57	2016	5	1265000	750500	1000500	1988040	550020	210050
	2015	3	983500	780000	901020	1235010	250000	195500
58	2016	2	550500	230520	756500	1562180	453600	300520
	2015	3	500450	320000	750040	968890	259120	268500
59	2016	3	700350	360050	890500	1450240	387220	190250
	2015	2	690050	256500	875000	1051990	200870	150250
60	2016	1	550020	350050	487950	1560090	400120	179250

	2015	3	647000	400500	582800	1269860	350005	105890
61	2016	2	996500	356401	800950	759420	145800	56950
	2015	2	887300	401121	700500	1400930	356500	76900
62	2016	3	1560000	700850	1200005	2001620	500560	125400
	2015	2	1200050	650782	900050	1620920	450210	120500
63	2016	2	670050	326800	550600	1970000	640250	235400
	2015	3	870510	460050	700950	1301800	365980	132550
64	2016	2	345001	79005	269500	1296316	305908	100500
	2015	3	468000	100195	389000	1494500	350500	135650
65	2016	2	695005	200352	500500	1277100	356050	100561
	2015	3	650500	198005	467980	1130690	235620	97325
66	2016	2	900650	385950	798500	1637164	325982	99050
	2015	2	875000	400950	698500	2413200	456350	111050
67	2016	1	360050	50150	345000	1580470	365210	100250
	2015	2	237000	78050	200500	1384700	259850	70050
68	2016	3	200137	99650	189000	1630560	365000	88070
	2015	3	300750	103450	235650	812005	125000	99574
69	2016	1	900570	300150	891250	1968200	489350	156850
	2015	3	1102000	585050	912580	2363200	625850	200501