THE RELATIONSHIP BETWEEN CASH FLOW AND PROFITABILITY
OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY

BY

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Declaration

I the undersigned declare that this research project proposal is my original work and has not been presented in any other institution.

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Number: D61/72269/2011

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

Signed:………………………… Date:…………………………

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Dedication

I dedicate this project to my entire family members. Special thanks to my wife Joy and daughters Betty and Xenia. Without their understanding I would not have managed to put together this project paper.
Acknowledgement

There are many people who have invested their lives and time, thus making it possible for the development of this project. Without them I would not have anything to bring out of this research.

My gratitude to supervisor Dr. Aduda, who patiently and tirelessly guided me in the production of this work. Thank you very much for your constant and consistent encouragement in the task of writing this project even when the going proved daunting.

The price a family pays when writing a project is high. I therefore express my gratitude and indebtedness to my family for their unconditional support throughout my study.
Abstract

Cash flow and profitability of firms are organizational objectives of interest having a relationship to each other. A healthy cash flow position result in liquidity of a company which helps it sustain its operation resulting in generation of higher profits and prudent re-investment of the profits results in the growth of the firm. Consistent positive cash flow position will facilitate higher profit levels and hence excess cash for investment. These objectives are determined by the strategic direction of the company, the nature of its business, the period of its existence and the influence of the environment around the company for example competition, government policies, customers, and staff among others.

The objective of this research was to establish the relationship between profitability and cash flow of small and medium enterprises in Nairobi County. A descriptive study was applied in this study using primary data obtained from individual small and medium enterprise firms which were drawn to form a sample for the purpose of this study. Data was organized into a panel and analyzed using a fixed effect regression model to obtain coefficient of the variables.

Findings of the study indicated that there was significant relationship between profitability and cash flow of small and medium enterprises in Nairobi County. The findings indicated presence of other significant variables influencing profitability of SMEs and which did not form the subject of this study.

The study recommended policy of looking at profitability in a holistic manner and working towards identifying these primary variables that influences profitability of small and medium size enterprises. It is evident that cash flow has significant relationship with profitability for this segment of firms sampled.
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<thead>
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<th>Description</th>
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<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
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<tr>
<td>EUR</td>
<td>Euro Currency</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>MSE</td>
<td>Micro and Small Enterprise</td>
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<td>NPV</td>
<td>Net Present Value</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>VCA</td>
<td>Variance Component Analysis</td>
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<td>NCC</td>
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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study
Cash flow and profitability of firms are organizational objectives of interest which go hand in hand the two have a relationship to each other. A healthy cash flow position result in liquidity of a company which helps it sustain its operation resulting in generation of higher profits and prudent re-investment of the profits results in the growth of the firm. Consistent positive cash flow position will facilitate higher profit levels and hence excess cash for investment. These objectives are determined by the strategic direction of the company, the nature of its business, the period of its existence and the influence of the environment around the company for example competition, government policies, customers, and staff among others. Profits reflect cash flow forecasts (Beaver, 1989; Dechow, 1994).

1.1.1 Cash flow
Cash flow is the difference in amount of cash available at the beginning of a period referred in accounting terms as opening balance and the amount at the end of that period referred as closing balance. The expression cash flow was coined in the late 1950s (Mason, 1961). Cash flow is of vital importance to the health of a business. Many businesses may continue to trade in the short-to medium term even if they are making a loss. This is possible if they can, for example, delay paying creditors and/or have enough money to pay variable costs. However, no business can survive long without enough cash to meet its immediate needs. Cash coming into the business is referred to as cash inflows. This happens mostly through sales of goods or services. Cash going out of the business is referred to as cash outflows. This results from the need to pay for costs such as raw materials, transport, labour, and power. The difference between the two is called the net cash flow. This is either positive or negative. A positive cash flow occurs when a business receives more money than it is spending. This enables it to pay its bills on time. A negative cash flow means the business is receiving less cash than it is spending. It may struggle to pay immediate bills and need to borrow money to cover the shortfall. Firms’ ability to generate cash flows is an important component in any investment decision. Future cash flows directly affect the value of securities, because they constitute the ultimate payoff expected from the investment
and hence, they are a crucial input for financial valuation models (Gilchrist & Himmelberg, 1995).

1.1.2 Profitability
Profit is a financial benefit that is realized when the amount of revenue gained from a business activity exceeds the expenses, costs and taxes needed to sustain the activity. Any profit that is gained goes to the business's owners, who may or may not decide to spend it on the business. Profitability is the profit making ability of an enterprise. It is the ability of a given instrument to earn a return from its use. It indicates how well management of an enterprise generates earnings by using the resources at its disposal. Profitability is a measure of evaluating the overall efficiency of the business. The best possible course for evaluation of business efficiency may be input-output analysis. Profitability can be measured by relating output as a proportion of input or matching it with the results of other firms of the same industry or results attained in the different periods of operations. Profitability of a firm can be evaluated by comparing the amount of capital employed i.e. the input with income earned i.e. the output. This is known as return on investment or return on capital employed. Business is conducted primarily to earn profits. The amount of profit earned measures the efficiency of a business. The greater the volume of profit, the higher is the efficiency of the concern. The profit of a business may be measured and analyzed by studying the profitability of investments attained by the business. Thus, profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit (Barad 2010)

Growth firms have the ability to scale up their business very rapidly. One consequence of this rapid growth is that the firm's balance sheet may come under significant pressure as capital demands escalate in line with business growth. While growth firms in the early stages may not be profitable, investors are generally willing to take a longer-term view in the expectation that rapid revenue growth will eventually translate into increasing profits and cash flow. Internal Growth requires an increase in sales. In order to do this the firm will have to promote existing products and launch new products, this will require an increase in productive capacity. It can finance growth via borrowing, retaining profits (internal funds) or issuing new shares. Mergers and takeovers are ways in which businesses can grow externally and grow by joining together to
form one company. Mergers are mutual agreements between the companies involved to join together Singh (1975).

1.1.3 Relationship between Cash flow and Profitability

For a business to be successful an ideal situation is to have adequate cash balances as well as healthy profit figures, i.e, it should strive to be profitable and cash generative. There is often a great deal of confusion over these two terms as many think that these are similar terminologies used interchangeably. However, what needs to be learnt is that 'profit is not the same as cash.' There are multiples reasons as to why the profit shown in the income statement may not be same as the amount available in the company's bank account to spend. The profit may be a positive figure but cash balance may be a negative figure.

Cash is more like an organization's engine on which the company runs. If cash management is not up to the standard required, then the company is likely to go bankrupt. Moreover, high profits do not in any way mean that the business enterprise is liquid. Cash flow analysis gives an insight into the core business activities and management decisions on which the company's profitability and sustainability linger. For companies, often profit is the overriding objective but if cash is not sufficient, the company's growth will slump and there may be a threat to its survival. Hence, cash flow is absolutely critical for the existence and survival of an organization and a company generating healthy cash balances will invariably have high profitability. To put in another way, cash is a need whereas profit is a want.

1.1.4 Small and Medium Enterprises in Nairobi County

SME’s are becoming increasingly important to economic development in Kenya. Mueni (2008) indicated that most of the local business in Kenya falls under Small and Medium Enterprises (SME) sector. The report states that the sector employs over 75% of the Kenyan workforce and plays a critical role in poverty alleviation. Given the importance of SME’s in Kenya, strategic management plan should be developed in order to meet demanding standards and requirements of today’s highly competitive global market place (Ndambuki, 2010). Most of these SME’s are operating in Nairobi County. These enterprises include, in particular, self-employed persons and family businesses engaged in craft or other activities, and partnerships or associations regularly
engaged in an economic activity. The category of small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million. The main factor determining whether an entity is an SME is the number of employees and either turnover or balance sheet total. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million (European Union, 2006).

The definition of an SME will however vary from country to country or region to region depending on the circumstances like the economy and government policy. In Britain, a small business is that with paid employees totaling less than 200, while in Kenya, a small business is that with 10-49 employees, and a medium business is that with 50-99 employees (Waweru, 2007). It has been argued that the definition of SMEs is mainly derived from SMEs being entities engaged in an economic activity, irrespective of their legal form coupled with predetermined thresholds in the total full time and part time staff headcount, the annual turnover and the annual balance sheet after all rebates have been paid out. Kenya’s SME sector contributes an estimated 18 per cent of GDP. SMEs in Kenya employ about 80 per cent of the Kenyan workforce (Kenya Economic survey, 2011).

SMEs, together with Micro and Small Enterprises (MSEs) which account for over 90% of enterprises in all countries, are an important source of output and employment. They employ 33% of formal sector workers in low-income countries and 62% of such workers in high-income countries. Because poor countries have large informal economies, dominated by micro-businesses, the MSE and SME portion of total employment is much higher. In India, for example, 86% of the labour force is employed in the informal sector, including farming (ILO, 2009).

Mburu (2009) analyzed the determinants of trade credit use by SME’S in Nairobi County and found out that SME’s in Kariobangi Light Industries area of Nairobi County are run by the owners, the majority of which have been operational for less than 5 years and almost half were engaged in food and beverages production. This shows that most of the SME’s are still at their development stages.
1.2 Research Problem

Cash flow is crucial in the daily operation of a business. Liquidity in the business facilitates provision of working capital allowing the firm to source for inputs and pay its liabilities including its suppliers, staff and meet its tax obligations. A firm making profits but is unable to turn the debtors into liquid cash run a risk of becoming insolvent despite having high sales. This is because inability to manage credit sales and hence cash flow will result in the firm being unable to meet its short term obligations. This will result in the firm running out of investment capital and being unable to attract creditors leading to reduced profits and shrinkage instead of growth. Cash flow problems can lead to business failure. When firms suffer from financial constraints, growth prospects are expected to cause increases in cash flow sensitivity and under investment. By contrast, as improving growth opportunities help to resolve over spending problems, cash flow sensitivity should decrease with growth (Schoubben and Van Hulle, 2008).

In examining whether distressed firms filing bankruptcy could be distinguished from those that avoid filing, Gilbert et al (1990) observed that contrary to the findings of Casey and Bartczak(1985), cash flow ratios (cash flow from operations to total liabilities and cash flow from operations to current liabilities as defined by Casey and Bartczak (1985)) were significant predictors of distress. Ward (1994) investigated why traditional cash flow is thought to be a strong predictor of financial distress. By adding the traditional cash flow variable to a model comprising six accrual ratios and Ward observed that the significance of cash flow from operations was not affected. Rather he found that the net income to total asset variable became insignificant. Ward (1994) subsequently concluded that traditional cash flow is a significant predictor of financial distress. The multivariate studies that did not find cash flow information to be significant in predicting failure included (Casey and Bartczak, 1984 and 1985; Gentry et al, 1985a). On the other hand, studies that found cash flow information to be significant used late year’s data (Azizet al, 1988). This suggests that cash flow information was becoming more salient with time perhaps due to inflation (Hawkins, 1977), the increasing number of corporate collapses (Altman, 1983), and the movement of income measurement from a cash basis to an accrual basis (Hawkins, 1977). (Sharma and Iselin, 2000) has considered the usefulness of cash flow information in such contexts, the results of which indicate significant information usefulness in cash flow data for assessing corporate solvency.
Mong’o (2010) analyzed the impact of cash flow on profitability among commercial banks in Kenya over a period of five years from 2005-2009. It was specifically conducted to explain the influence that various components of cash flows have on profitability growth. The objective of the study was to establish the causality that exists between the profitability and cash flow. This was prompted by the need to unravel the mystery on whether profits are driven by cash flow or the vice versa. This study by Mong’o (2010) relates to the topic of study as the objectives of the study are identical with the same variables in play. The only difference is the sector of study where Mong’o (2010) studies impact of cash flow on profitability among commercial banks as opposed to the small and medium enterprises which are non financial institutions.

1.3 Objective of the Study
The objective of this study is to establish the relationship between cash flow and profitability of Small and Medium Enterprises in Nairobi County.

1.4 Value of the Study
This study has significance in the context of the possible users of the information availed by it. Various entities will find relevance in the results of this study and therefore find it useful in decision making.

This study will help management of Small and Medium Enterprises in Nairobi County and the economy at large to better manage their cash flow for profitability and growth and to foresee, plan and protect the company from liquidity challenges and possible insolvency. This is because the study will be able to demonstrate the relationship between cash flow and profitability enabling firms to project their future cash flow needs and plan for investment and expansion of firms or take mitigating measures in the event that they foresee a situation of diminishing cash flow hence it will aid in decision making in that aspect.

The study will be significant to the government in policy making. This study will inform the government and policy makers on the cash flow situations in this and other related sectors and will aid in situations where policy decisions like registration, licensing, taxation, merger and acquisitions have to be made to enable regulation of the sector without stifling growth and innovation.
The study will be useful to investors who will be interested in putting their capital in this sector. The study will help them make informed decisions on financing of such investments, possible expectations from their investments and the cash flow risks and benefits that abound in the sector. With this they will be able to make informed decisions factoring the cash flow needs and effects in this sector of the economy. The study will also be useful to future investors and interested general public for information purposes. Scholars interested in this line of research will find relevant and useful materials to aid and enhance their research in this and related areas of study through comparison with other research work and as a source of literature.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
The chapter presents literature review on the effect of cash flow on the profitability and growth of small and medium enterprises in the Nairobi County. Books, journals and articles which carry research work on the topic are reviewed. The chapter covers review of theories on cash flow, profitability of firms, empirical studies undertaken in relation to the topic, general literature review and conclusions arrived at by researchers on the topic.

2.2 Review of Theories
2.2.1 Free Cash flow Theory
Jensen (1986) posits that firms generating cash in excess of that required to fund positive Net Present Value (NPV) projects face greater agency problems as the free cash flow exacerbates the conflict of interest between shareholders and managers. One implication from Jensen’s free cash flow theory is that firms with high levels of free cash flow are more likely to initiate takeovers that are value-decreasing. Free cash flow is cash flow in excess of that required to fund all of a firm’s projects that have positive net present values when discounted at the relevant cost of capital. Such free cash flow must be paid out to shareholders if the firm is to be efficient and to maximize value for shareholders. Payment of cash to shareholders reduces the resources under managers’ control, thereby reducing managers’ power and potentially subjecting them to the monitoring by the capital markets that occurs when a firm must obtain new capital. Financing projects internally avoids this monitoring and the possibility that funds will be unavailable or available only at high explicit prices.

Managers have incentives to expand their firms beyond the size that maximizes shareholder wealth. Growth increases managers’ power by increasing the resources under their control. In addition, changes in management compensation are positively related to growth. The tendency of firms to reward middle managers through promotion rather than year-to-year bonuses also creates an organizational bias toward growth to supply the new positions that such promotion-based reward systems require (Baker 1986). The tendency for managers to over invest resources is limited by competition in the product and factor markets that tend to drive prices toward
minimum average cost in an activity. Managers must therefore motivate their organizations to be more efficient in order to improve the probability of survival.

2.2.2. Dynamic Theory
Clark (1899) propounded the dynamic theory of profit he says profit is the difference between the price and the cost of production of the commodity. But the profit is the result of dynamic change. In a dynamic state, “five generic changes are going on, every one of which reacts on structure of society.” They are; population is increasing, Capital is increasing, Methods of production are improving, the forms of industrial establishment are changing, the less efficient shops are passing from the field and the most efficient are surviving, the wants of consumers are multiplying.

In a dynamic society an entrepreneur is always confronted with continuous unpredictable changes in demand for his product. The variation in demand may take place due to change in fashions, standard of living, distribution of income, population, new inventions, international repercussion and technological advances etc. A prudent entrepreneur will always keep an eye on future demand for his products. If he succeeds in increasing his sale by lowering the cost of production or by adoption of an innovation, then he can secure profits.

2.2.3. Innovative Theory
Schumpeter (1927) attributes profit to dynamic changes resulting from an innovation. A capitalist closed economy which is in a stationary equilibrium. This equilibrium is characterized by a “circular flow” which continues to repeat itself for ever. In such a static state, there is perfectly competitive equilibrium. The price of each product just equals its cost of production and there is no profit.

Exogenous factors like weather conditions can cause changes in the circular flow position. In the circular flow position goods are being produced at a constant rate. This routine work is being performed by the salaried managers. It is the entrepreneur who disturbs the channels of this circular flow by the introduction of an innovation. The role of an innovator is allocated not to the capitalist but to the entrepreneur.
2.2.4. Risk Theory
Hawley (1907) regarded risk taking as the main function of the entrepreneur. Profit is the residual income which the entrepreneur receives for the reason that he assumes risks. The entrepreneur exposes his business to risk and receives in turn a reward in the form of profit since the task of risk taking is infuriating. Profit is an excess of payment above the actuarial value of risk. No entrepreneur will be willing to undertake risks if he gets only the normal return. Hence the reward for risk taking must be higher than the actual value of risk.

Hawley stated that profit was composed of two parts: one part represents compensation for average loss incidental to the various causes of risk and the other part represents an inducement to suffer the consequences of being exposed to the risk. Hawley believed that profits arose from factor ownership as long as the ownership included risk. If the entrepreneur avoided risk by insuring against it, he ceased to be an entrepreneur and should not receive profits. According to Hawley profit arose out of uninsured risk. The uncertainty ends with sale of the entrepreneur's product. Profit thus is a residue. Hawley's theory is also known as the "residual theory of profit.

2.2.5. Uncertainty Bearing Theory
Knight (1921) regards profit as the reward of bearing non-insurable risks and uncertainties. He distinguishes amidst insurable and non-insurable risks. Certain risks are measurable in as much as the probability of their occurrence can be statistically calculated. The risk of fire theft of merchandise and of death by accident is insurable. Such risks are borne by the insurance company. There are certain unique risks which are incalculable. The probability of their occurrence cannot be statistically computed for the reason of the presence of uncertainty in them. Such unforeseen risks relate to changes in prices, demand and supply etc. No insurance company can calculate the loss expected from such risks and hence they are non-insurable. Profit according to Knight is the reward of bearing non-insurable risks and uncertainties. It is a deviation arising from uncertainty between earning ex post and ex ante.

The uncertainty bearing is looked upon as a separate factor of production due to its importance. Like other factors, it has the supply price. The entrepreneur bears the uncertainty in the expectation earning profit. However the uncertainty bearing is not the sole function of
entrepreneur. Hence, the profit he earns is also the reward for other services such as initiating, coordinating, managing, bargaining skill and so on. So, uncertainty bearing is not the sole determinant of profit.

### 2.2.6. Rent Theory of Profit

Walker maintains that profit is the rent of ability. Like different grades of land, entrepreneurs are also of different abilities. Entrepreneurs of superior ability earn profit just as superior lands earn rent. According to Walker just as there is the marginal or no rent land, similarly there exists a marginal or no profit entrepreneur who earns only wages only wages of management.

The marginal or no profit entrepreneur is the least efficient one earning profit not beyond an amount just sufficient to keep him in his present industry. The industry managed by the marginal entrepreneur is similar to the marginal land. Just as land at the margin is no rent land, similarly the marginal entrepreneur earns no profit.

### 2.3 Review of Empirical Studies

Recent studies try to gain a better understanding of these empirical findings by focusing on the causes of cash flow sensitivity. In investigating the investment cash flow sensitivity of UK listed firms, (Pawlina and Renneboog, 2005) confirm that investment is strongly cash flow sensitive. They find that the observed cash flow sensitivity result mainly from the agency cost of free cash flow. Jensen, M. (1986) free cash flow hypothesis implies a positive relationship between cash flow and investment. In particular, the asymmetric information problem of Myers and Majluf (1984) suggests that firms may suffer from under investment when the acquisition of external financing is costly. In that case, investment outlays will depend on the availability of internally generated resources, resulting in positive investment-cash flow sensitivity.

Information asymmetry may also hamper firms in obtaining additional debt (Stiglitz and Weiss, 1981; Greenwald et al, 1984). Watson and Wilson (2002) show that a financial pecking order will be most apparent when information asymmetry between insiders and outsiders is greater, leading to higher costs associated with external financing. Fazzari et al, (1988) argued that cash flow sensitivity should be higher for firms with high investment opportunities. Jensen, (1986)
found that in the case of listed firms, where management and ownership tends to be separated, over investment of free cash flow can cause a positive relationship between cash flow and investment. This problem is likely worse for firms with little investment opportunities. Following Hoshi et al, (1991) and Vogt (1994), the different response of cash flow sensitivity to changing investment opportunities (or growth opportunities), has been used to disentangle over-and under-investment issues.

High growth opportunities combined with higher investment-cash flow sensitivity is believed to be a symptom of under investment (Audretsch and Elston, 2002; Bond et al., 2003), while a decrease in cash flow sensitivity should point to problems of free cash flow (Deloof, 1998; Gugler, 2003). Del Brio et al. (2003) show for example on Spanish data that the level of free cash flow as well as the investment opportunities influences the market reaction to investment announcements. Degryse and de Jong, (2006) find a combination of effect.

Mong’o (2010) analyzed the impact of cash flow on profitability among commercial banks in Kenya over a period of five years from 2005-2009. It was specifically conducted to explain the influence that various components of cash flows have on profitability. The objective of the study was to establish the causality that exists between the profitability and cash flow. This was prompted by the need to unravel the mystery on whether profits are driven by cash flow or the vice versa. The study was carried out by analyzing the various banks profit measured by the profit after tax the dependent variable and the cash flow components (operating, financing and investing) as the independent variables.

The findings for the study indicated that profits among commercial banks improved tremendously during the last five years. Cash flow from operating activities experienced the same trend which was occasioned by the improved performance which translated to financing and investing cash flow which have shown consistent increase over the five years. Cash flow from the financing and the investing activities were found to have a great influence (positive) of the banks profit while operating cash flow have a negative effect. This implies that increase in financing cash flows by way of borrowing positively contributes to the bank’s profitability. Consequently, the more they borrow the more they boost profitability. It also means that banks
with high loan portfolios will definitely experience higher profitability as compared to banks with stringent lending practices. In order to increase profitability it is important that banks focus on boosting the financing and investing cash flow as they have a significant and a positive impact on profitability. Banks should invest in activities such as branch network expansions, installing ATM machines as well as borrowing and increasing loan portfolios. The central bank therefore need to provide the right conditions to facilitate lending by commercial banks by adopting sound monetary policies such as reduced lending rates as well as liquidity ratios among the commercial banks to enhance the lending potential by the banks. Banks should also supplement their incomes through borrowing either from other banks or by floating bonds as this will boost their profitability.

It also means that banks with high loan portfolios will definitely experience higher profitability as compared to banks with stringent lending practices. In order to increase profitability it is important that banks focus on boosting the financing and investing cash flow as they have a significant and a positive impact on profitability. Banks should invest in activities such as branch network expansions, installing ATM machines as well as borrowing and increasing loan portfolios. The central bank therefore need to provide the right conditions to facilitate lending by commercial banks by adopting sound monetary policies such as reduced lending rates as well as liquidity ratios among the commercial banks to enhance the lending potential by the banks. Banks should also supplement their incomes through borrowing either from other banks or by floating bonds as this will boost their profitability.

The study of firm growth is in itself, heterogeneous in nature. The variation in measures used in organizational growth studies, the variation in growth indicators, the variation in the measurement of firm growth over time, the variation in the processes by which firm growth occurs (e.g., organic versus acquisition), and the variation in the characteristics of these firms and their environments, are all important features of organizational growth, as a phenomenon. (Brush & Vanderwerf 1992; Chandler & Hanks 1993; Delmar 1997; Murphy, Trailer & Hill 1996; Weinzimmer, Nystron & Freeman 1998; Wiklund 1998).

Dunne & Hughes (1996) rely on measuring growth as absolute sales growth measured over a time period of five years whereas Zahra (1993) rely on relative employment growth over a time
period of three years hence comparability is impaired. The choice of absolute or relative growth is especially important for the relationship between size – and anything correlated with size – and growth. Absolute measures tend to ascribe higher growth to larger firms whereas smaller firms more easily reach impressive growth in percentage (i.e., relative) terms.

Churchill & Lewis (1983) argue that employment is a much more direct indicator of organizational complexity than are sales, and may be preferable if the focus of interest is on the managerial implications of growth. If firms are viewed as bundles of resources, a growth analysis ought to focus on the accumulation of resources, such as employees. Furthermore, when a more macro-oriented interest in job creation is the rationale for the study, measuring growth in employment seems the natural choice (Schreyer 1999). Obvious drawbacks of employment as a growth indicator are that this measure is affected by labor productivity increases, machine-for-man substitution, degree of integration and other make-or-buy decisions. A firm can grow considerably in output and assets without any growth in employment.

Wissen, (2002) explain that firm growth is related very closely to firm survival. Specifically, firm growth is positively correlated with the likelihood of survival. Hence firms that experience continuous growth will have a higher profits and probability of surviving in the market. Geroski, (1995) mentioned that one of the most interesting subjects in firm dynamics is the ability to learn and respond to their changeable environment. “The implication is that the growth and survival prospects of new firms will depend on their ability to learn about their environment, and to link changes in their strategy choices to the changing configuration of that environment. This ability to learn and adapt is crucial to firm growth and is highly correlated with the firm’s age or experience, this is not the only factor but it is one of the most important. Penrose, (1959) argue that firms grow in many different ways and that these patterns of growth, over time, can vary significantly and have different causes. Implicit in this view is a belief that the search for an explanation for why firms grow without knowledge of how firms grow leads to conflicting theories about the causes of firm growth. Firm growth patterns are related to the demographic characteristics of these firms. Stinchcombe, (1965) is of the view that a firm’s growth pattern is dependent on its age, its size and its industry affiliation has been acknowledged in previous theoretical work.
Firms grow in order to achieve their objectives, including increasing sales, maximizing profits or increasing market share. The growth of every firm is motivated by different motives Riley, (2012). Hoogstra and Dijk, (2004) suggested that other external factors are related to a firm’s location or environment. Almus and Nerlinger, (1999) considered as external factors, as well as local factors, the average rates of wages and salaries. As these are cost factors, they can prevent the hiring of new employees and thus have a negative influence on growth. Therefore, scholars have introduced internal and external firm characteristics to analyze firm growth.

Since debt financing will be easier to attract compared to equity, available external financing resources for the most constrained sub sample are likely to consist of interest bearing debt (Watson and Wilson, 2002; Hall et al., 2004). Furthermore, lenders typically improve their evaluation of borrowers when the latter can show that their prospects ameliorate. Altman and Narayanan, (1997) claim that banks make extensive use of growth measures in order to classify companies as financially sound. Udell (1998), in consistency with the evidence in Korajczyk and Levy (2003) suggest that, as owners observe that the debt carrying capacity of their firm improves, they may also prefer more debt financing in high growth periods. When information-related financial market imperfections diminish, opportunities to continuously attract external financing at lower costs improve, both in debt and equity markets, while internal and external financing become better substitutes. As a result, cash flow sensitivity due to capital constraints should be limited. Furthermore, although there is ample evidence that long time listed firms also time the acquisition of external financing due to the substitutability of external and internal resources, the impact of an increased use of external resources on measured cash flow sensitivity should be limited for these firms (Korajczyk and Levy, 2003; Pastor and Veronesi, 2005).

Preceding logic does not take into account that growth opportunities may be correlated with an increased use of external financing. The reason for this is that most studies concentrate on mainly long time publicly traded firms, which - a priori - are less influenced by information-related financial market imperfections. Holod and Peek (2007) show however, using data on listed as well as unlisted banks, that access to external financing is influenced by the degree of information asymmetry associated with the listing status, especially in periods of monetary tightening. When information asymmetries are important, the gap between the cost of internal
and external financing becomes substantial. One would then expect that firm characteristics affecting this gap - like growth opportunities – will influence the firm’s access to external financing. This occurs for example when, in periods of high growth, the benefits from investment opportunities overcome the costs of external financing and/or external financing costs are smaller compared to low growth periods. The timing of the acquisition of external financing is likely to significantly distort measured investment-cash flow sensitivities for firms suffering from important information asymmetries. When information asymmetry is limited, the cost gap between internal and external financing is relatively small and the availability of external financing is therefore less likely to influence investment behavior, Hoshi et al, (1991).

Bond et al, (2003) studying banking relationships and institutional factors find important differences in cash flow sensitivity, suggesting that firm characteristics like group membership or country specific institutional characteristics may have an impact on a firm’s investment/financing behavior.

In particular, consistent with arguments and empirical evidence in Hovakimian and Hovakimian (2007) who argue that Investment cash flow sensitivity is associated with both under investment when cash flows are low and overinvestment when cash flows are high. The accessibility of external capital is positively correlated with cash flows, intensifying investment cash flow sensitivity. Managers actively counteract the variations in internal and external liquidity by accumulating working capital when liquidity is high and draining it when liquidity is low. These results imply that cash flow sensitive firms face financial constraints, which are binding in low cash flow years. Traditional indicators of financial constraints, such as size and dividend payout, successfully distinguish firms that may potentially face constraints, but are less successful in distinguishing between periods of tight and relaxed constraints. These periods are much more clearly separated by the KZ index, which, on the other hand, is less successful in identifying firms that are likely to face liquidity constraints.

Boyle and Guthrie (2003) analyze the dynamic investment decision of a firm subject to an endogenous financing constraint. They conclude that threat of future funding shortfalls lowers the value of the firm's timing options and encourages acceleration of investment beyond the first-best optimal level. As well as highlighting another way by which capital market frictions can
distort investment behavior, the result implying that the sensitivity of investment to cash flow can be greatest for high-liquidity firms and greater uncertainty has an ambiguous effect on investment.

Hansen and Wernerfelt (1989) integrated two sample models of firm performance, one which used economic factors and one which used organizational factors. The economic factor model is based primarily on economic tradition, emphasizing the importance of external market factors in determining firm success. The other model, organizational, is built on the behavioral and sociological paradigm and sees organizational factors and their fit with the environment as the major determinants of success.

Lenz (1981) provided an interdisciplinary review and evaluation of empirical studies on the performance of whole enterprises. Lenz summarizes and comments on identifying factors that influence organizational performance and also reviews environmental factors affecting firm profitability. Importantly, organizational factors are influenced entirely by human decision making which varies substantially. Also most substantial environmental changes for example consumer demand, inflation will not likely have a uniform impact across companies.

Levy (1997) conducted an investment experiment, in which a real monetary profit or loss can occur, to test the Capital Asset Pricing Model (CAPM). He found that risk and return are strongly associated. While in most cases the Generalized CAPM (alternative risk return model developed by Levy (1978), Merton (1987) and Markowitz (1990)) beta provides the best results, the CAPM beta reveals a strong positive association with mean returns. Levy’s results along with the risk-return equilibrium model provide grounds enough to incorporate beta as a variable associated with company profitability.

Hirschey and Wichern (1984) analyzed the consistency, determinants, and uses of accounting and market-value measures of profitability. Economic profits provided a long-term perspective of business. They found that there are differences between accounting indicators and market indicators of the return and suggest that the influence of the accounting indicators should be seen as a historical interpretation unlike the market indicators of the return that give a future vision.
Moreover they see that there is a set of significant factors when it comes to measuring performance such as cash flow and growth prospect of the firm. Kessides, (1990) estimated that Profitability is measured with an income statement. This is essentially a listing of income and expenses during a period of time for the entire business. Overall, the study clarifies the relationship between market share, cash flow and profitability.

Brush, Bromiley, and Hendrickx (1999) find that both corporation and industry influence business unit profitability but corporation has the larger influence. The authors use a continuous variable model, as an alternative to the more conventional ANOVA or VCA. This approach estimates the coefficients of corporation and industry effects on business segment returns while explicitly removing the simultaneous effects that might cause inconsistent estimates. In the end, they find a sizable corporate effect on business segment performance, one which appears to be greater than the industry effect. Brush and Bromiley’s findings contradict Rumelt’s (1991) widely cited paper, in which Rumelt finds that corporations explain almost none of the variability in business unit profitability.

Riley (2012) explains the relationship between cash flow and growth of firms by postulating that firms grow in order to achieve their objectives, including increasing sales, cash flow and maximizing profits or increasing market share. The growth of every firm is motivated by different objectives.

2.4 Conclusions for Literature Review

In a conclusive remark, past literature in relation to firm profitability is extensive and over the course of time has addressed several missing components as well as crucial flaws and holes in previous models and methodology. Still today economists acknowledge that there is plenty of room for further research in this area. For instance, a more in depth look at the organizational factors referred to Lenz’s (1981) study is still needed as there is no precise way to account for a company’s management, core business practices, or strategic outlook within the world of modeling. Schiantarelli and Sembenelli, (2000), find important differences in cash flow sensitivity from studies undertaken by others, suggesting that firm may have an impact on a firm’s investment/financing behavior.
As demonstrated by Mang’o (2010), Cash flow from operating and financing activities experienced the same trend of growth occasioned by the improved performance which translated to financing and investing cash flow which have shown consistent increase over the years. Cash flow has a great influence on profit of firms. This implies that increase in financing cash flows by way of either borrowing or floating equity to the market positively contributes to the profitability as the company is able to meet its liquidity needs which is essential for day to day operation and overall growth of a firm.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter discusses the methodology that was employed in crying out the study. It sets out various phases and stages that were followed in completing the study. The chapter considers the methods that was used in data collection and identifies the techniques and procedures used in data processing and analysis. The research design, target population, data collection instruments, data collection procedures and data analysis are discussed. Models and statistical tools used in analysis are also discussed.

3.2 Research Design
Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. It expresses both the structure of the research problem and the plan of investigation used to obtain empirical evidence on those relationships Cooper and Schindler (2006). A descriptive research was used. This design is useful in investigating the cause and effect relationship between two or more variables hence is relevant for this study.

3.3 Population
A population is the entire focus group of a research. It is the event or things of interest that the researcher will investigate. It is the total collection of elements about which we wish to make some inferences Cooper and Schindler (2006). The population comprised of small and medium enterprises in Nairobi County. According to Nairobi County Council Licensing Department (July, 2013) there are 71,195 licensed small and medium enterprises in Nairobi County.

3.4 Sample
A simple random sampling method was used. Fifty (50) firms were identified for study from the available population of the SMEs in Nairobi County. All the firms within this definition of SMEs had an equal chance of being studied. The study covered a period of five years between January 2008 and December 2012. According to Cooper and Schindler (2006), a simple random sampling method is considered a special case in which each population element has a known and equal chance of selection.
3.5 Data Collection
The study applied secondary data. Data was obtained from listed firms studied. The nature of data was audited financial statements, the statement of cash flow and the income statement. The researcher obtained a letter of introduction from the University of Nairobi which was presented to the respondents.

3.5.1 Data Reliability and Validity
Cronbach, (1971) explains that a pilot test can be carried out to ascertain the validity of the questionnaire. Using face and content validity, the content validity of the questionnaire will be evaluated through administration of the pilot group. Reliability of the questionnaires was ascertained through their administration to the pilot group. Reliability coefficient of 0.6 and above was considered acceptable. Cronbach alpha of less than 0.6 was considered too low and amendment of the research tool would be recommended.

3.6 Data Analysis
The data collected were reviewed for accuracy, completeness and consistency. The data was analyzed using a descriptive statistical tool. The data was arranged in a Panel. Panel data was used because it allows for control of variables that cannot be observed or measured across companies and because it accounts for individual heterogeneity. A fixed effect regression model was used because fixed effect help in analyzing the impact of variables that vary over time. It explores relationship between predictor and outcome within an entity. Mong’o (2010) used the model to analyze the impact of profitability among commercial banks in Kenya over a period of five years.

The fixed effect model used is of the form

\[ Y_{it} = \beta_0 + \beta_1 X_{1it} + \ldots + \beta_k X_{kit} + u_{it} \]

Where

- \( Y_{it} \) is the dependent variable where \( i \) = entity and \( t \) = time.
- \( X_{kit} \) represents independent variables,
- \( \beta_k \) is the coefficient for the independent variables,
- \( u_{it} \) is the error term
CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

The chapter gives a presentation of information analyzed from the data collected during this study on the relationship between cash flow and profitability of small and medium size enterprises in Nairobi County. The sampled population contained annual data on profits, cash flow from operations, cash flows from investing and cash flow from financing activities for a period of five years between January 2008 to December 2012.

The chapter besides presenting analysis of the data will equally present findings based on the analysis. Data analysis was carried out using Statistical Package for the Social Sciences (SPSS). Result of the data analysis includes descriptive statistics, Pearson product-moment correlation coefficient of the dependent variable and each of the independent variables and the coefficients of the multiple linear regression models.

4.2 Data Presentation

4.2.1 Source of Data and Presentation

Data used in this research was obtained from a population sample of 30 companies regarded to fall within the definition of medium and small enterprises that were studied. The names of the companies are available in appendix 1. The data consisted of profits after tax, cash flow from operating activities, cash flow from investing activities and cash flow from financing activities of a sample of 30 small and medium enterprises within the county of Nairobi between January 2008 and December 2012. From the list of 30 companies studied, a panel data with 150 observations was prepared for analysis. This data was all obtained from each company’s end of year financial statements for each of the individual financial years 2008 to 2012. The thirty (30) responses collected represented 60% of the targeted small and medium enterprises. This response rate was deemed sufficient for the purpose of this study.
4.2.2 Descriptive Statistics

The table below illustrates the descriptive statistics. It indicates the industry average minimum, maximum and mean of the profits, cash flows from operating, investing and financing activities respectively and the standard deviation of each of the variable.

Table 1: Descriptive detail of Profits and cash flows for the period 2008-2012

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit</td>
<td>-9016307</td>
<td>107,524,245</td>
<td>4109244</td>
<td>1.4e+07</td>
</tr>
<tr>
<td>Operating cash flow</td>
<td>-22,133,941</td>
<td>30,863,738</td>
<td>1883202</td>
<td>5124602</td>
</tr>
<tr>
<td>Cash Flow Investing</td>
<td>-45,352,000</td>
<td>25,364,455</td>
<td>-1146667</td>
<td>5157856</td>
</tr>
<tr>
<td>Cash flow Financing</td>
<td>-35,714,286</td>
<td>43,082,530</td>
<td>-713927</td>
<td>6574245</td>
</tr>
</tbody>
</table>

Source: Researcher (2013)

The dependent variable profits had a mean of Kshs 4,109244. From the distribution in the data on net profit, the mean profit lies in the upper half of the ranking from the lowest to the highest profits. This is because at inception most of these firms made less profit and even losses but over time the profit has multiplied substantially across all firms. As a result, average profit across years has been on the rise in most of the companies. However there are two extremes in the profits made across the years and the mean is influenced by the outliers in either direction. This is however an estimated average which does not represent profits of particular firm. The standard deviation of 1.4e+07 suggest that most of the data is concentrated around the mean to a +1 standard deviation. The higher standard deviation also shows a higher level of data dispersion. Within the same period, profits were at a minimum of Ksh -9,016,307 and a high of Ksh 107,524,245.

The mean of the Cash flow from operation of 1,883,202 lies on the upper part of the ranking due to higher values of cash flow on the upper end of the ranking which tends to drag the mean to the
outliers. The standard deviation is high at 5,124,602 indicative of a high level of dispersion of the data and the deviation from the mean.

Cash flow from investing activities generated a mean of -1,146,667. This suggested there was a lot of capital outflow on average to finance investments in the firms to increase generation of income. The outliers were more concentrated on the lower end of the ranking. There was a high deviation from the mean of 5157856 indicating a higher level of data dispersion.

Cash flow from financing activities had a mean of Ksh -713,927. The mean was heavily pulled towards the negative end due to an apparent high level of capital outflow towards financing activities. The outliers were more concentrated on the negative end of the data. A standard deviation of 6,574,245 was evidence of the high level of dispersion over the study period, January 2008 to December 2012. Within the same period, cash flow from financing activities was at a low of Ksh -35,714,286 and a high of Ksh 43,082,530. This trend demonstrated an almost balance levels in capital outflows and inflows in relation to financing activities.

### 4.2.3 Correlation

Table 2 illustrates correlation between the dependent variables and the independent variables. There is existence of a negative correlation between net profits and cash flows from operating activities. This means as cash flows from operations increase, profits decrease and vice versa.

<table>
<thead>
<tr>
<th></th>
<th>Net Profit</th>
<th>Cash flow Operating Activities</th>
<th>Cashflow Investing Activities</th>
<th>Cashflow Financing Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flow Operating</td>
<td>-0.1693</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>0.0385</td>
<td>0.0001</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Cashflow Investing</td>
<td>0.1297</td>
<td>-0.3093</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>0.1137</td>
<td>0.0001</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Cashflow Financing</td>
<td>0.0665</td>
<td>-0.5291</td>
<td>-0.4360</td>
<td>1.0000</td>
</tr>
<tr>
<td>Activities</td>
<td>0.4190</td>
<td>0.0000</td>
<td>0.0000</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Researcher (2013)
Positive correlation exists between net profit and the predictors, cash flows from investing activities and cash flows from financing activities meaning as these cash flows increase then net profit is also expected to increase. There is evidence of significant relationship between net profit and cash flow from operating activities $p = 0.0385 < 0.05$

**4.2.4 Regression model, Analysis and Results**

A panel data fixed effect regression model was used in this study as it helps to analyze the impact of variables that vary over time. The table below illustrates the results of the fitted model.

Table 3: R-Square and F Statistic Fixed-effects (within) regression

<table>
<thead>
<tr>
<th>R-sq: within = 0.0974</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-sq: between = 0.0030</td>
</tr>
<tr>
<td>R-sq: overall = 0.0294</td>
</tr>
<tr>
<td>Prob &gt; F = 0.0072</td>
</tr>
<tr>
<td>rho = 0.34157682</td>
</tr>
<tr>
<td>Number of observations = 150</td>
</tr>
<tr>
<td>Number of groups = 30</td>
</tr>
</tbody>
</table>

Source: Researcher (2013)

The F test gives a value of $0.007 < 0.05$. This indicates none of the coefficients in the model is equal to zero and hence the model is highly significant. Rho gives the value of interclass correlation, it indicates that 34.15% of the variance is due to differences across panels.
Table 4: Coefficients of regression

| Net Profit | Coeff. | Std. Err. | T | P>|t| | [95% Conf. Interval] |
|------------|--------|-----------|---|------|----------------------|
| Cash flow from operating | -1.032262 | 0.3725638 | -2.77 | 0.007 | -1.770105 -0.2944184 |
| Cashflow from investing | 0.00082 | 0.3320999 | 0.000 | 0.998 | -0.6568865 0.6585265 |
| Cash flow from financing | -0.1799389 | 0.293052 | -0.61 | 0.540 | -0.7603131 0.4004352 |
| constant | 5923229 | 1133720 | 5.22 | 0.000 | 3677956 8168502 |

Source: Researcher (2013)

From Table 4, the coefficients of the regressors indicate how much the net profit changes for a unit change in the predictors. The t-values test the hypothesis that each coefficient is different from 0. It can be seen that $t = -2.77 < t = 1.96$ at 95% confidence level for cash flow from operating activities $t = 0.00 < t = 1.96$ at 95% confidence level for cash flow from financing activities and $t = -0.16 < t = 1.96$ at 95% confidence level for cash flow from financing activities. This shows that the variables have a significant effect on the dependent variable i.e net profit.

The regression equation can thus be represented as:

$$ Y = 5923229 - 1.032262X_{it} + 0.00082 - 0.1799389X_{it} $$

### 4.3 Summary and Interpretation of Findings

Fixed effect panel data model was used for the analysis because of its ability to analyze the impact of the variables that vary over time. Profits for the study period were correlated with cash flows from operations, investing and financing activities. Profit was the dependent variable with cash flows from operating, investing and financing activities being the independent variables. This allowed for investigation of possible non-linear relationship between the determinants and profit and to control for possible non-normal distribution data. Sensitivity analysis was
performed using regression to test the relationship between the parametric variables as data could be easily distorted by extreme observations (Gupta and Newberry, 1997).

The dependent variable profits had a mean of Ksh 4,109,244. Average profit across years has been on the rise in most of the companies. However there are two extremes in the profits made across the years and the mean is influenced by the outliers in either direction. The standard deviation suggests that most of the data is concentrated around the mean. The higher standard deviation also shows a higher level of data dispersion. The mean of the Cash flow from operation of Ksh 1,883,202 lies on the upper part of the ranking due to higher values of cash flow on the upper end of the ranking which tends to drag the mean to the outliers. The standard deviation is high indicative of a high level of dispersion of the data and the deviation from the mean.

Cash flow from investing activities suggested there was a lot of capital outflow on average to finance investments in the firms to increase generation of income. The outliers were more concentrated on the lower end of the ranking. There was a high deviation from the mean of 5157856 indicating a higher level of data dispersion. Cash flow from financing activities had a mean heavily pulled towards the negative end due to an apparent high level of capital outflow towards financing activities. The outliers were more concentrated on the negative end of the data. A standard deviation of 6,574,245 was evidence of the high level of dispersion over the study period, January 2008 to December 2012. Within the same period, cash flow from financing activities was at a low of Ksh -35,714,286 and a high of Ksh 43,082,530. This trend demonstrated an almost balance levels in capital outflows and inflows in relation to financing activities.

There is existence of a negative correlation between net profits and cash flows from operating activities. This means as cash flows from operations increase, profits decrease and vice versa. Positive correlation exists between net profit and the predictors, cash flows from investing activities and cash flows from financing activities meaning as these cash flows increase then net profit is also expected to increase. There is evidence of significant relationship between net profit and cash flow from operating activities $p = 0.0385 < 0.05$. The F test gives a value of $0.007 < 0.05$. This indicates none of the coefficients in the model is equal to zero and hence the model is
highly significant. Rho gives the value of interclass correlation, indicating that 34.15% of the variance is due to differences across panels. The t-values test the hypothesis that each coefficient is different from 0. It can be seen that the variables have a significant effect on the dependant variable i.e net profit.

These findings are consistent with studies undertaken by Kessides, (1990) who reported in his study that profitability is as a result of income and expenses as indicated in an income statement. The income statement is a listing of income and expenses during a period of time for the entire business. There seem to be a direct relationship between cash flow and profits.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The research set out to investigate the relationship between cash flow and profitability of small and medium enterprises in Nairobi County. This was a descriptive study, using panel data collected from 50 selected companies within the County of Nairobi. The data primarily intended to capture information for the five years between January 2008 and December 2012 about profits made in each year for the five years, cash flows from operations, investing and financing activities. The responses were received from only 30 companies of the 50 sampled. This was cleaned and put in a panel representing 150 observations.

A fixed effect regression model was used for data analysis to provide information on the means and standard deviations of various components of the regression model together with the coefficients of the regression model. Individual information on the variables was obtained through a descriptive study and Pearson correlation coefficient used to indicate the level of correlation between the independent variables and the dependent variables. F and t tests were performed to test for levels of significance of the independent variables on the dependant variables.

The research found out that there was significant relationship between cash flow and profitability of small and medium enterprises in Nairobi. There was equally correlation between the dependent and independent variables. The result also indicated that the independent variables had an effect on the dependent variable the resultant value of the dependent variable were also identified as being as a result of other factors which were not part of this study like turnover. Therefore for the purpose of this study, the variables used were considered to be significance and sufficient to influence the profits of the enterprises.
5.2 Conclusions

This paper investigated the relationship between cash flow and profitability of small and medium enterprises in Nairobi County. The study arrived at the conclusion that cash flow had a significant relationship with profitability of small and medium size enterprises based on the data obtained. This is a demonstration that cash flow is a primary requirement for profitability of firms.

The study indicated that there is significant relationship between profits and cash flow. Cash flow remains the most important indicator of business success. Data collected from the SME’s according to the research indicate that most of them incur losses, this may as well force them out of business in the long run because shareholders will attach no or little value to the business entity as benefiting them and they may come to the conclusion that quitting the business may be a better option. The shareholders will be highly dissatisfied over continuous low or no profits and the company will loose its good will in the eyes of general public, which will eventually lead to the event of closing the company altogether.

The study therefore demonstrated that profitability can be achieved in firms by directly depending on cash flows. There are other factors to which profitability depends. This finding is supported by studies undertaken by Kessides, (1990) who reported in his study that profitability is as a result of income and expenses as indicated in an income statement. The income statement is a listing of income and expenses during a period of time for the entire business. There does exist a direct relationship between cash flow and profits in the sense of profits being as a result of the difference between sales and cost of sales. This is as a result of operating activities. Therefore the significance of cash flow in profitability is evident.

In reality, it is extremely important that both profit and cash are positive figures and there is a balance between them. If the company lacks on either one of them, the company is most likely to be driven out of business. Hence, for a company to be successful and to have the potential to grow, it has to be mindful of its cash position and profitability.
5.3 Policy Recommendations

More efforts are needed at the firm’s level to identify the other variables impacting profitability and growth of firms since it has been identified that cash flow is not the only factor affecting profitability of firms.

A healthy cash flow is important to the firm’s solvency but these needs to be identified separately. Different firms will have different and unique cash flow challenges which can impact on the firm’s solvency and hence into the profits though indirectly. The individual firms will therefore need to identify their own unique challenges and strengths to be able to grow their profits.

More efforts are needed from the regulatory agencies and government in general towards helping the firms grow and manage their costs as their growth will be good for the wider economy.

Management efficiency is required in managing costs, increasing efficiency and there for profitability of firms. It is important to identify all the factors affecting profitability in firms and putting forth policies to manage them.

5.4 Limitations of the Study

While every effort was made to use a representative sample, this could not be achieved fully due to diverse nature of the firms identified for study and the total number of firms besides the fact that they operate in very different sectors of the economy.

It was not possible to independently verify information given by some of the firms and reliability was on the officials who in any case could choose to distort information as access to audited financial statement was limited in some cases.

The SME sector is still evolving and in some cases there would not be level playing field to enable a one fits all solution to the challenges faced by each firm. As a result, aggregating information received from individual firms would not necessarily give a clear indication of the true position of the industry.
The response level was not very high to provide a holistic picture of the industry in general hence the study should be used with caution bearing that it might not give the whole picture in regard to profitability and its relationship with cash flow of firms.

5.5 Suggestions for further Studies

As is evident from this study, the independent variables studied do not fully determine the outcome of the dependent variable. It will be important to carry out other studies to identify other factors that relate to profitability other than cash flow.

It is possible that there is indirect relationship between profitability and cash flow. This could lead to further research in the role of cash flow in solvency of firms and hence the impact of solvency in profitability. This could bring out the question as to whether firms can still make profits despite cash flow challenges.

Studies can be undertaken on specific profitability of segments of the SME so as to come up with more accurate, unique and representative sectoral studies due to diversity of the SMEs.
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NCC, (July 2013). Local Authority integrated financial operations management system data


APPENDIX I: List of Firms studied
1. 3 Mice Interactive Media Ltd
2. Dot Savvy Ltd
3. Cellulant Kenya Ltd
4. Symbiosis Ltd
6. Kenya Website Experts
7. Aspen Solutions Ltd
8. Beytechnic Consultants Ltd
9. Bunia.net Online Solutions
10. Metrocomia Ltd
11. Creative Edge Ltd
12. Interactive Agency Africa Ltd
13. Felltech Systems Ltd
14. Webmasters Ltd
15. iLead Africa Media Ltd
16. Softlink Options Ltd
17. Digital Squad Ltd
18. Bridge ICT
19. Coseke Kenya Ltd
20. East Africa Recovery Experts
21. Internet Planet
22. Level Thirty Six Co. Ltd
23. Paynet Kenya Ltd
24. SasaHivi Media Ltd
25. Web Solutions Kenya Ltd
26. Pesa Point Ltd
27. Victoria Furnitures Ltd
28. Pesa Pal Ltd
29. OLX.co.ke Ltd
30. Sprint Interactive Ltd
31. Level One communications Ltd
32. Sketchers Design Promoters Ltd
33. Blue Eyes Ltd
34. Apex Steel Ltd
35. Urbanis Africa Ltd
36. Amana Capital Ltd
37. Roberts Kenya Ltd
38. Eagle Africa Ltd
39. Iway Africa Ltd
40. Virgin Tours and Travel Ltd
41. Villa Care Management Ltd
42. Nairobi Garments Enterprises Ltd
43. Universal Cabs Ltd
44. Dodhia Packaging Ltd
45. Plaza Imaging Ltd
46. Sight and Sound Computers Ltd
47. Furniture Elegance Ltd
48. Capital Colours Ltd
49. The Phoenix Ltd
50. Jawkim Holdings Ltd
APPENDIX II : SAMPLE OF DATA COLLECTED

SAMPLE OF CEZAM CLIENTS' STATISTICS
FOR THE 5 YEARS 2008 TO 2012

<table>
<thead>
<tr>
<th>Client No.</th>
<th>1 (SCL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Investment property (1 unit)</td>
</tr>
<tr>
<td>Location</td>
<td>Nairobi</td>
</tr>
<tr>
<td>Year end</td>
<td>December</td>
</tr>
<tr>
<td>No.</td>
<td>2008</td>
</tr>
<tr>
<td>Directors</td>
<td>3</td>
</tr>
<tr>
<td>Staff (approx)</td>
<td>4</td>
</tr>
<tr>
<td>Kshs</td>
<td></td>
</tr>
</tbody>
</table>

Total assets 349,660,431 361,762,772 353,919,385 318,869,082 313,119,948

P&L A/c

Turnover 46,963,037 58,410,482 73,433,013 78,917,370 85,707,044

Net profit after tax (6,925,425) 4,005,362 14,234,953 1,979,460 24,585,551

Extracts from Cash Flow Statements

Net cash generated from/(used in):

- Operating activities 37,052 16,427,848 27,952,775 9,211,680 30,863,738
- Investing activities (171,900) (218,400) (1,106,250) - -
- Financing activities (215,078) 6,268,878 (26,749,636) (35,714,286) (31,714,289)

Increase/(decrease) in cash & equivalents (349,926) 22,478,326 96,889 (26,502,606) (850,551)

<table>
<thead>
<tr>
<th>Client No.</th>
<th>2 (GMCL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Investment property (1 unit)</td>
</tr>
<tr>
<td>Location</td>
<td>Nairobi</td>
</tr>
<tr>
<td>Year end</td>
<td>October</td>
</tr>
<tr>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>Directors</td>
<td>7</td>
</tr>
<tr>
<td>Staff (approx)</td>
<td>15</td>
</tr>
<tr>
<td>Kshs</td>
<td></td>
</tr>
</tbody>
</table>
### Total assets

|          | 84,972,623 | 91,158,668 | 169,989,962 | 185,240,100 | 312,825,425 |

### P&L A/c

**Turnover**

|          | 9,264,066 | 9,913,646 | 10,678,378 | 10,758,174 | 19,252,647 |

**Net profit after tax**

|          | 2,240,919 | 4,550,110 | 75,055,477 | 10,193,234 | 105,542,531 |

**Gain on revaluation of building**

|          | - | - | 70,000,000 | 5,000,000 | 95,000,000 |

### Extracts from Cash Flow Statements

**Net cash generated from/(used in):**

- **Operating activities**
  - 2008: 2,699,282
  - 2009: 3,619,077
  - 2010: (5,316,953)
  - 2011: 11,063,583
  - 2012: (22,133,941)

- **Investing activities**
  - 2008: (30,000)
  - 2009: 154,167
  - 2010: 340,461
  - 2011: 580,439
  - 2012: 5,202,861

- **Financing activities**
  - 2008: (2,181,214)
  - 2009: 3,623,251
  - 2010: 5,513,782
  - 2011: 6,093,998
  - 2012: 18,258,958

**Increase/(decrease) in cash & equivalents**

|          | 488,068 | 7,396,495 | 537,290 | 17,738,020 | 1,327,878 |

### SAMPLE OF CEZAM CLIENTS' STATISTICS

**FOR THE 5 YEARS 2008 TO 2012**

| Client No. | 3 (GHML) |
| Business   | Hotel & club house (2 units) |
| Location   | Nairobi |
| Year end   | March   |

|          | 2008 | 2009 | 2010 | 2011 | 2012 |
| Directors | 3    | 3    | 3    | 3    | 2    |
| Staff (approx) | 80 | 80 | 85 | 80 | 78 |

|          | Kshs | Kshs | Kshs | Kshs | Kshs |

**Total assets**

|          | 27,819,774 | 29,447,972 | 35,996,783 | 36,095,726 | 37,929,313 |

### P&L A/c

**Turnover**

|          | 64,523,600 | 79,822,765 | 81,242,041 | 75,989,909 | 93,918,085 |

**Net profit after tax**

|          | 3,260,279 | 6,077,312 | 938,954 | 877,670 | 2,706,998 |

### Extracts from Cash Flow Statements

**Net cash generated from/(used in):**

- **Operating activities**
  - 2008: (319,421)
  - 2009: (1,846,435)
  - 2010: 8,917,606
  - 2011: 3,190,329
  - 2012: 132,924

- **Investing activities**
  - 2008: (694,600)
  - 2009: (2,106,003)
  - 2010: (4,020,760)
<table>
<thead>
<tr>
<th>Financing activities</th>
<th>1,023,926</th>
<th>1,993,896</th>
<th>(895,820)</th>
<th>(1,294,916)</th>
<th>1,107,680</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase/(decrease) in cash &amp; equivalents</td>
<td>(2,037,947)</td>
<td>(1,958,542)</td>
<td>4,001,026</td>
<td>(1,284,875)</td>
<td>(317,184)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Client No.</th>
<th>4 (WAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Motel &amp; restaurant (1 unit)</td>
</tr>
<tr>
<td>Location</td>
<td>Nairobi</td>
</tr>
<tr>
<td>Year end</td>
<td>December</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff (approx)</th>
<th>Less than 20</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Total assets</th>
<th>11,999,393</th>
<th>12,939,705</th>
<th>13,356,230</th>
<th>13,762,538</th>
<th>121,605,229</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>P&amp;L A/c</th>
<th>Turnover</th>
<th>Net profit after tax</th>
<th>Gain on revaluation of building</th>
<th>Extracts from Cash Flow Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,803,686</td>
<td>9,658,964</td>
<td>9,234,126</td>
<td>6,674,410</td>
</tr>
<tr>
<td></td>
<td>187,639</td>
<td>(772,235)</td>
<td>(647,732)</td>
<td>(1,545,782)</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Net cash generated from/(used in):

<table>
<thead>
<tr>
<th>- Operating activities</th>
<th>669,981</th>
<th>2,227,008</th>
<th>61,452</th>
<th>586,251</th>
<th>51,741</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Investing activities</td>
<td>(2,537,555)</td>
<td>(1,078,526)</td>
<td>(608,094)</td>
<td>(85,575)</td>
<td>(221,530)</td>
</tr>
<tr>
<td>- Financing activities</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Increase/(decrease) in cash &amp; equivalents</td>
<td>(1,867,574)</td>
<td>1,148,482</td>
<td>(546,642)</td>
<td>500,676</td>
<td>(169,789)</td>
</tr>
</tbody>
</table>

SAMPLE OF CEZAM CLIENTS' STATISTICS FOR THE 5 YEARS 2008 TO 2012

<table>
<thead>
<tr>
<th>Client No.</th>
<th>5 (USL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Manufacture &amp; distribution of mineral water</td>
</tr>
<tr>
<td>Location</td>
<td>Nairobi</td>
</tr>
<tr>
<td>Year end</td>
<td>December</td>
</tr>
<tr>
<td></td>
<td>2008</td>
</tr>
</tbody>
</table>

|-----|-----|-----|-----|-----|
Directors  
Staff (approx)  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>95</td>
<td>90</td>
<td>90</td>
<td>110</td>
<td>106</td>
<td></td>
</tr>
</tbody>
</table>

Kshs   Kshs   Kshs   Kshs   Kshs

**Total assets**  
73,003,706   81,177,128   86,361,647   102,802,755   122,587,082

**P&L A/c**

Turnover  
88,407,458   98,786,909   92,769,177   117,747,560   140,630,010

Net profit after tax  
15,810,715   10,014,315   7,255,183   (8,907,807)   1,742,221

**Extracts from Cash Flow Statements**

Net cash generated from/(used in):

- Operating activities  
  (9,330,102)   4,118,863   10,678,998   8,601,760   17,997,600

- Investing activities  
  25,364,455   (6,692,539)   (5,392,573)   (29,210,496)   (17,032,662)

- Financing activities  
  (14,109,536)   734,562   (1,223,648)   12,612,497   (18,791,315)

Increase/(decrease) in cash & equivalents  
1,924,817   (1,839,114)   4,062,777   (7,996,239)   (17,826,377)

**SAMPLE OF CEZAM CLIENTS' STATISTICS FOR THE 5 YEARS 2008 TO 2012**

<table>
<thead>
<tr>
<th>Client No.</th>
<th>6 (IAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Interactive Agency Services</td>
</tr>
<tr>
<td>Location</td>
<td>Nairobi</td>
</tr>
<tr>
<td>Year end</td>
<td>December</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Staff (approx)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>18</td>
</tr>
</tbody>
</table>

Kshs   Kshs   Kshs   Kshs   Kshs

**Total assets**  
22,242,780   20,284,616   26,785,558   23,222,704   22,587,082

**P&L A/c**

Turnover  
30,816,929   42,006,153   25,645,615   17,526,287   22,864,663

Net profit after tax  
(7,158,106)   (9,016,307)   (4,541,091)   (2,920,336)   (4,661,605)

**Extracts from Cash Flow Statements**

43
Net cash generated from/(used in):

- Operating activities  892,847  1,602,599  1,292,277  (1,880,783)  (542,370)
- Investing activities  (492,738)  (884,160) - - -
- Financing activities  (1,076,139)  (915,547)  1,389,122 - -

Increase/(decrease) in cash & equivalents  (676,030)  (197,108)  2,681,399  (1,880,783)  (542,370)

SAMPLE OF CEZAM CLIENTS' STATISTICS
FOR THE 5 YEARS 2008 TO 2012

Client No.  7 (F & B)
Business  Food and Beverages
Location  Nairobi
Year end  December
No.  2008  2009  2010  2011  2012
Directors  2 2 2 2 2
Staff (approx)  25 28 30 30 35

Kshs  Kshs  Kshs  Kshs  Kshs

Total assets  24,785,250  28,420,166  26,570,265  26,570,265  30,870,300

P&L A/c

Turnover  16,308,650  20,075,480  22,950,870  26,840,580  30,887,690
Net profit after tax  2,158,320  4,579,024  2,541,120  1,865,090  925,680

Extracts from Cash Flow Statements
Net cash generated from/(used in):

- Operating activities  928,478  2,061,050  1,322,685  1,660,635  1,154,752
- Investing activities  272,150  (875,900)  (946,270)  368,970  (987,320)
- Financing activities  1,554,668  215,345  890,125  (645,895)  (500,180)
Increase/(decrease) in cash & equivalents  2,755,296  1,400,495  1,266,540  1,383,710  (332,748)