

**THE RELATIONSHIP BETWEEN INVESTMENT DECISIONS AND  
FINANCIAL PERFORMANCE OF SMALL AND MEDIUM SCALE  
ENTERPRISES IN LIMURU TOWN, KENYA**

**BY  
CRISPUS NDUNGU KARANJA**

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**DECLARATION**

I hereby declare that this research project is my original work and has not been submitted for a degree in any other learning institution.

Signed: ..... Date: .....

**CRISPUS NDUNG’U KARANJA**

**D61/63203/2010**

**Supervisor’s approval**

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

Signed: ..... Date:.....

Mr Mirie Mwangi

Lecturer, School of Business

University of Nairobi.

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## **DEDICATION**

This study is dedicated to the Almighty God who always has great and best plans for me. He has always been, he is and he shall always be my great shepherd. In him I will always put my trust.

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## **ABSTRACT**

Making an investment decision is one of the most important business decisions that a firm has to make for it to be competitive and efficient. The small and medium enterprises sector being a vital sector in the economy there is a great need to study the relationship between investment decisions made in those firms and the financial performance. The study aimed to achieve this goal and its objective was to assess the relationship between investment decisions and financial performance of small and medium scale enterprises in Limuru town, Kenya.

To facilitate the attainment of this objective this research was designed as a survey study. The population of interest comprised small and medium enterprise firms in Limuru town. The respondents were firm owners who undertake investment decisions that affect the firm. The research used a questionnaire to gather primary data from the respondents. Data was presented using tables and pie charts. Both descriptive and inferential statistics were used to analyze the data by interpreting respondent information ranking variables and performing regression analysis which enabled the researcher to test the relationship between investment decisions and financial performance.

The study found that investment decisions affected the financial performance in small and medium scale enterprises, thus a recommendation from the study to small and medium scale enterprises firm owners for the need to make prudent investment decisions for their firms because those decisions do affect the firm's financial performance.

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## **ABBREVIATIONS**

OECD	-	Organisation for Economic Cooperation and Development
SMEs	-	Small and Medium Scale Enterprises
SPSS	-	Social Sciences Package Statistical Software

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Globally the need for sustained economic growth and social welfare advancement has been highly sought for by various countries, this has resulted to the need for countries to create conducive environment that encourage business activities thus promoting positive economic growth prospects, chief among those activities that has been the deliberate increase in government policies and legislation aimed at nurturing SMEs as engines of economic growth and employment creation. Nurturing of the small to medium size enterprises (SMEs) is being hailed for their pivotal role in promoting grassroots economic growth and equitable sustainable development, this nurturing has resulted in increased entrepreneur activities in the SMEs sector in developing countries.

According to OECD report on promoting SMEs for sustainable development (Organisation for Economic Co-operation and Development, 2000) SMEs play a key role in transition and developing countries (Organisation for Economic Co-operation and Development, 2000). These firms, constitute a major source of employment and generate significant domestic and export earnings, thus SME development emerges as a key instrument in poverty reduction efforts and their advancement is key to sustained economic growth, for they are an integral part of a country's economic fabric and their success affects the well being of the society as engines of job creation, economic growth and innovation.

SMEs are extremely important to many countries and their contribution to economy cannot be over emphasized, they are socially and economically important since they represent 99% of all enterprises in the European union and provide around sixty five million jobs as well as creating immense contribution to entrepreneurship and job creation (Valere, 2009). SMEs play a vital link in boosting the levels of innovation in the national economy and fostering greater competition both domestically and increasingly internationally. According to the Observatory of European commission on SMEs the average SME across European enterprises employ 6.8 people, at both the European Union and national level, this makes SMEs lie at the heart of policy making with the emphasis on encouraging enterprise and promoting business growth (The Observatory of European SMEs, 2007).

### **1.1.1 Investors**

Investors can be described as people who employ funds in an activity with expectation that during the investment duration their wealth shall be enhanced from the returns expected, funds invested comes from assets owned, borrowed money and savings (Levišauskait, 2010). When investors forego consumption today and invest their funds, they expect to enhance their future consumption possibilities by increasing their wealth.

### **1.1.2 Investments**

An investment is based upon an analysis and its main goal is to promise of principle sum invested and to earn the satisfactory risk. Practice of investing is not new; it has probably

been in existence for as long as the aspect of trading has been in existence, investors are present in all settings worldwide (Levišauskait, 2010).

### **1.1.3 Investment Decisions and Their Determinants**

Investment behavior is critical to an individual's future; investment decisions may be contingent on many factors. According to (Alleyne, 2010) it has been argued that individual attitudes among other variables can predict the investment decision process that the individual undertakes. Financial literacy is also vital in enhancing prudent decision making capabilities to an individual, this is supported by the fact that prior research has suggested that that improvement of education in financial management positively correlates with decision making on critical investment activities (Chen & Volpe, 1998). Despite the importance of financial management literacy in prudent investment decision making ability there is still less knowledge on financial management matters by the SME sector players. According to (Ogiji & Ejembi, 2007) it is worthwhile to note that many people do not have the adequate knowledge of basic investment concepts required to make prudent investment decisions. This deficit of basic economic concepts has led to massive training to various potential and existing investors on aspects of financial literacy since improved financial education leads to an increase in the investment behavior in an individual.

#### **1.1.4 Financial performance**

Financial performance can be termed as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. According to (Levasseur, 2002) financial performance can be measured using proxies like profitability, return on equity, liquidity, solvency, and sales growth and all these can be extracted from the financial statements and/or reports. Information on financial performance is useful in predicting the capacity of the enterprise hence analyzing how well or poorly an enterprise is doing against its set objectives. Generally financial performance of business organizations can be measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Avkiran, 1995)

Measures of financial performance take a variety of forms, though these measures differ from one another on several dimensions at times various issues are involved in the pointing out at the right choice of the particular financial measure to employ that one is to employ for example, measures may be absolute, return-based, internal, external, a level for a single period, a mean or a growth rate over several years or vary about a mean or a trend (Almas & Loof, 2008) . According to (Chava, Chara, & David, 1998) Financial performance improvement is a key target for all businesses irrespectively of their size.



### **1.1.5 Investment Decisions and Financial performance**

The relationship between investment decisions that a firm makes and the resulting financial performance is of vital use in assessing the effectiveness of a firm's investment decisions. The importance of investment decision to financial performance is vital, the investment decision is purely a strategic decision, as it contains financial, human and organic resources of the company and is the only way for managers to keep the company alive for a long time, (Baumol & Wolff, 1983). Thus implementation of investments is critical for a company for its future success and survival, and depends on the correct predictions and prudent decisions made by firms' managers. One way that the impact of investment decisions made by managers can be assessed is by measuring the level of a firm's financial performance.

According to (Cohen & Klepper, 1996) in the past, researchers have documented a significant positive relationship between investment decisions and a firm's productivity through its financial performance. It can be assumed that better investments decisions in capital expenditure result in to improved efficient productivity, growth in sales turnover and profit performance of firms and thus exert a positive contribution in their financial performance (Ericson & Pakes, 1995) .In essence good investment decisions result not only in better financial performance progress but also do improves access to external resources for instance through securities for investments in general and for further investments in research and development in particular, this aids in ensuring that a firm has adequate liquidity levels (Donaldson, 1961) .

The relationship between prudent investment decision making capability of a firm's managers and its advantage in analyzing a target investment's resultant true financial performance is vital, managers are perceived to have more information than other investors regarding an investment, thus managers are vital in making prudent investment decision analysis that shall lead to better performance of a company in both financial and non financial parameters (Akintoye & Olowolaju, 2008). According to (Olivier, Rhee, & Summers, 1993) the concept of having prudent investment decisions from managers so as to improve a firm's value is of importance since market valuation methodologies seems to play a limited role in unlocking a target investment true financial performance in terms of its value compared to the aspect of evaluation of decisions through a fundamental analysis. This highlights the importance of managers in investment decision making process where they should be guided by fundamentals and not by just the market valuation process thus being able to fundamentally detect accurately a firm's true financial performance.

It is a commonly held view that investment activities by the firm towards its production capacity do make a vital contribution to firms' sales performance, productivity and profit, (Geroski, Machin, & Reenen, 1993). Investment decisions regarding the various forms of capital input have also been positively linked to financial performance, the stochastic outcome of a firm's own investments in aspects like, physical capital, human capital, research and development expenditure does increase the firm's production capacity and thus boosting its financial performance, (Levasseur, 2002) .

The benefit of making investment decisions with regard to expected output or expected product demand and its relationship with a firm's financial performance is vital since investment with regard to market expectations sensitivity helps to fight off the competitive pressure from other firms within or outside the industry by improving effectively the firm's expected sales performance thus ensuring profitability and growth of the firm, (Levasseur, 2002). Firms invest in research and development aspects in order to enhance their competitiveness and capability to earn profits to boost their financial performance.

The above assessment shows that there exists a direct positive relationship between a firm's financial performance and the investment decisions it takes. Investment decisions by a firm may be influenced by factors like expected product demand, available liquidity levels, need to efficiently input production factors, expected investment portfolio balance.

#### **1.1.6 Small and Medium Scale Enterprises**

The European Union gave rise to the term small and medium enterprises (SMEs) in 1996 and defined the term as an organization employing less than two hundred and fifty employees. SMEs are defined as non- subsidiary, independent firms which employ fewer than a given number of employees, this number varies across national systems, other parameters other than the number of employees are used in categorizing businesses as SMEs, for instance in the European union SMEs must have an annual turnover of 40 million Euros or less and /or a balance sheet valuation not exceeding 27 million Euros (Organisation for Economic Co-operation and Development, 2000). According to the

department of trade and industry in the United Kingdom, small businesses are defined as those businesses that are currently owned, managed and controlled by their owners who contribute most if not all of the operating capital having the principal decision making functions resting with the owner/manager; with a total number of 50 employees; while a medium sized enterprise is defined as a business that is larger than a small business and with employees numbering from 50 to 250 employees.

According to (Moyi & Njiraini, 2005) the Kenyan government micro enterprises session paper number two of the year of 2005 defines a SME as an enterprise with between 1 to 50 employees whereas the World Bank defines an SME as one that fits to either of the following criteria that is to say: A formally registered business with an annual turnover of between Kenya Shillings 8 to 100 million , an asset base of at least Kenya Shillings 4 million and employing between 5 to 150 employees.

According to the (Organisation for Economic Co-operation and Development, 2000) policy brief, SMEs as per the turn of the new millennium accounted for over 95% of firms and 60 to 70% of employment and generate a large share of new job creation in the OECD economies. Small and medium scale enterprises are mostly found in the service sector of various economies which now account for two thirds of employment capacity in OECD member countries, they also form half of manufacturing employment for OECD member countries (Organisation for Economic Co-operation and Development, 2000).

### **1.1.7 Factors that Influence Investment Decisions in Small and Medium Scale Enterprises**

Various factors can be attributed to influence investment decisions in small and medium enterprises; such factors include the following;

A firm's liquidity level is a one of those factors that influence its investment decisions, according to (Strong & Meyer, 1990) the amount and financing of capital investment by firms is in part a function of the "residual funds" available after proceeding down a hierarchy of prior claims on corporate cash flow, the starting point is the total cash flow generated by the firm, which does provide the base amount for distribution to various claimants and investment opportunities. Preference for "cheap" internal financing shall result in a firm opting to use residual funds to pay for sustaining investment whenever possible (Strong & Meyer, 1990).

Management decision making capacity may also in a great extent influence the investment decisions that a firm takes, managers should better follow their own personal evaluation of an investment and thus to a greater part ignore the sideshow information provided by the market (Bosworth, Brainard, & Tobin, 1975). Financial experts may not provide information on the exact probabilities for future returns in an investment thus an investment manager's risk altitude becomes an important factor in investment decisions (East, 1993).

The anticipated profit and rate of return that a firm anticipates from an investment also does influence its investment decisions, favorable expected returns are highly likely to cause more investment by firms (Stigler, 1963). The investment decision in a firm depends much on the market value of the target firm since the market value of a firm acts as a proxy to the expected future profitability of the firm (Grunfeld, 1960). An asset is worth acquiring by a firm if it increases a firm's profit and value (Miller & Modigliani, 1958).

The cost of capital that the firm attracts also influences the investment decisions that it makes, according to (Jorgenson, 1968) investment decisions mainly depend on the optimal cost of capital that the firm requires so as to boost its capacity in line with the objective of satisfying the demand for its good and services. Availability of cheap credit thus seems to influence investment decisions, according to (Blinder, 1987) credit rationing limits investment spending. The terms under which credit facility is available influences investment decisions of a firm especially in those firms that lack easy access to credit opportunities (Bernanke, 1983).

Expected output in the firm's production capacity also influences the kind of investment decisions that a firm makes. According to (Bischoff, 1971) there exists a linear relationship between net investment and net changes in output. This indicates that the expected output that the firm has is one of the primary factors that influences the

investment decisions the firm makes. Current investment capacity is a function of the expected productivity output, what he refers to as “induced” investment (Fisher, 1952).

Expected portfolio balance can also influence investment decisions in a firm, according to (Tobin, 1969) investment decisions are mainly made in the objective of striking a portfolio balance to the investing firm.

#### **1.1.8 Small and Medium Scale Enterprises in Limuru Town**

Being one of the greatest job creators in Kenya small and medium enterprises are widely spread in the country, the research study shall take place in Kiambu west district headquarters which is Limuru town, the town has a population of 61,336 permanent residents (Republic of Kenya 2012). Most of the business ventures here are small scale and medium scale trading and farming in nature.

Limuru town proximity to major towns, sites and easy accessibility to numerous infrastructure amenities like better transportation network connected by roads and a railway line makes the town an ideal business center for various business enterprises especially the SMEs ventures that sight it as an ideal locality to set up in, this is evident through the existence of both vibrant service industry players as well as emerging and existing manufacturing sector players

Agricultural sector which is mainly symbolized with many SMEs is much vibrant in this town both of which it is floriculture and horticulture in nature, the town also acts as a loading point of various agricultural produce from the fertile Nyandarua and rift valley regions that is mainly delivered for sale in Nairobi city which is just 38 kilometers away from Limuru town.

The high existence rate and great dominance of SMEs business ventures in this town makes it an ideal research area regarding an investigation in to what factors influence various investment decisions in the SME type of business ventures.

## **1.2 Statement of the Problem**

Investment decisions are among the three most fundamental decisions that a firm does take on its usual day to day operations, the other two fundamental decisions are the financing decisions and the operational decisions. Investment decisions by firms result in the performance of those investment activities by the firm that enhance its financial performance positive outlook, for instance an investment by a firm towards improving its production system capacity in the aim of meeting a forecasted demand level can make a vital contribution to the firm's increased production levels thus optimizing on its sales performance capacity by satisfying its market demand in an effective manner and thus a boost on its profitability status. Investment decisions regarding other various forms of capital input can be positively linked to financial performance. An improved production capacity through investing in aspects like, physical capital, human capital, research and



development increase the firm's production capacity can thus boosting the firm's productivity, competitiveness as well as the capability to enhance its overall financial performance. This shows that conceptually there exists some form of relationship between investment decisions taken by firms and their resulting financial performance.

Limuru town has a unique history as being as one of the earliest industrial towns in Kenya, the first major industry to be set in the town is Bata shoe company that was set long before the country's independence, in terms of service industry the enjoys one of the earliest railway service centers in the country the limuru railway station that was set in the early 1920s, this two great industries resulted in to an early establishment of small scale and medium scale enterprises that were created to support the unique and robust population growth that emerged in the town by then.

There exist some serious gaps in the previous studies regarding this research area. The SME sector is highly an essential sector in job creation and production of goods and services in numerous economies in the world, (Organisation for Economic Co-operation and Development, 2000). Despite much attributes to the SME sector as a job creator it has not attracted much research attention regarding the relationship between the financial performance of SMEs and the investment decisions that those SMEs take, most of the previous studies regarding the factors influencing investment decisions have not only neglected the research on the relationship of investment decisions with financial performance but they have focused mainly on human behavioral aspects of factors

influencing investment decisions in large firms that are usually listed in the capital markets, for instance (Shiundu, 2009) researched on the factors influencing individual investor's behavior in the Nairobi securities exchange, while (Waweru, Uliana, & Munoki, 2008) researched on the factors that influence institutional investor behavior at the Nairobi securities exchange, (Ghayekhloo & Masomi, 2011) also did a study regarding the effect of human behavior on investment decisions at Tehran stock exchange, this focus of both institutional and retail investors behavior on the listed firms has resulted in to a form of alienation on the critical SME sector which the majority are not yet listed. The failure of the previous studies to research on the aspect of investment decisions in SMEs and the link of those decisions to the financial performance of SMEs has resulted in some form of minimal contribution of these studies to finance discipline in general and specifically regarding to the relationship of investment decisions on the financial performance of the economically important SME sector operating firms. The study seeks to find out what is the kind of relationship between investment decisions and financial performance of SMEs in Limuru town.

### **1.3 Objective of the Study**

The objective of this study shall be to assess the relationship between investment decisions and financial performance by SMEs in Limuru town, Kenya.

#### **1.4 Importance of the Study**

The study shall be of importance to various parties some of whom that include the following;

First the study shall be of use to SMEs by helping them to unearth hitherto unknown information regarding the factors influencing the investment decisions in the SMEs sector; this information shall facilitate further understanding of the SMEs sector in general.

The study shall also be of great importance to government regarding the policy formulation process in regard to small and medium size enterprise sector which is a major employer in the country and one of the areas that the government targets to expound as a means to assist the country reach middle economy status in the next two decades.

Finally the study will assist researchers and scholars in facilitating an increase in the general knowledge of the subject and shall also act as a reference material to future researchers and scholars who may wish to embark on related studies. The study might also help to expose gaps for further research in this area.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents a review of related literature in the area of investment decisions in SMEs and the corresponding empirical studies that have been taken. First a brief introduction on the concepts of investment and financial performance this shall be followed by review on the theoretical literature in the area of investment decision theories, theoretical literature on investment decisions in small and medium scale enterprises, the aspects on the issue of financial performance in those firms is also made, the final part of this chapter presents corresponding empirical studies as well as a wrapping summary on the literature review.

#### **2.2 Theoretical Literature**

This section presents a brief review of the concepts of investment and financial performance as well as the various investment decision models that affect investment decisions in small and medium scale enterprises and the aspect of financial performance in these firms.

#### **2.3 The Concepts of Investment and Financial performance**

The act of investment involves the acquisition of goods which are destined not to be consumed or entirely used up in the current period, (Chen & Volpe, 1998). Investment

therefore can be termed as a means by which individuals or groups can attempt to influence their own well-being by the sacrifice of current consumption. Investment by individuals may take the form of the direct purchase of capital assets which are either intangible, such as education, or tangible, such as houses. Investment by individual firms may take many forms such as training for their employees, knowledge by research and development and investment in fixed capital stock, this last form of investment is the most crucial for both the individual firm and the short and long-term economic future of the country in which the firm operates (Anotonakis, 2001).

A firm that is planning to undertake an investment project must attempt to predict the pattern of those future events which are relevant to the success or failure of the project. It is this aspect of the investment decision to acquire fixed capital in expectations about events a long way in the future that distinguishes it from most other purchasing decisions (Anotonakis, 2001). In general, a firm's investment behavior represents their capital stock adjustments as a response to market opportunities and competitive pressures (Bischoff, 1970).

This term financial performance is used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial performance can also be termed as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues

Financial performance improvement is vital and a key target for all businesses irrespectively of their size, type and its sector. This is why Companies are trying to remain competitive by improving their products, reducing production costs, and investing in new manufacturing technologies,(Chava, et al., 1998). Financial performance can be measured using proxies like profitability, return on equity, liquidity, solvency, and sales growth and all these can be extracted from the financial statements and/or reports. Information on financial performance is useful in predicting the capacity of the enterprise hence analyzing how well or poorly an enterprise is doing against its set objectives (Almas & Loof, 2008).

## **2.4 Investment Decision Theories**

Investment decision theories attempt to explain the various factors that influence investment behavior of firms, in general terms investment decision theories can be classified through the various parameters that influence investment decisions, some of such parameters include; expected output, cost of capital and available cash flows.

In broad terms one can distinguish at least four theories of investment, those theories include the following: Cash flow theory, neoclassical theory and the Q theory. Within the cash flow theory we have three variants namely: the liquidity model, the managerial model and the information-theoretic model (Cherian, 1996 ).

### **2.4.1 Cash Flow Theory of Investment**

The cash flow theory of investment decision highlights the inter relationship between cash flow availability and investment spending capability, the theory can be divided in to three variants that describe three different models: the liquidity model, the information theoretical model and the managerial model. In broad sense the managerial model and the information theoretical model can be viewed as the modern versions of liquidity theory, both theories emphasize the role of internal finance as the fundamental determinant of investment, they both predict a positive relationship between cash flow and investment (East, 1993).

According to the liquidity theory, investment depends on primarily cash flows and internal finance availability that is the sum of retained earnings present; this indicates that investment may be directly constrained by the limited supply of internal finance. As proposed by (Keynes, 1936) a liquid balance sheet assists a firm to easily take investment opportunities when they arise, this takes note that the liquidity status of the firm's balance sheet can easily influence the investment decision that the firm takes. Cash flow sensitivity is theoretically justified and empirically justified in its positive correlation to a firm's investment capability and access to capital markets (Almeida, Campello, & Weisbach, 2004) . In part the liquidity theory can be as an attempt to explain the existence of financing hierarchy, which constitutes one of the most well documented facts of corporate finance (Koch, 1943).

In the information theoretical model within the cash flow theory information symmetry plays a vital role in the determination of investment decisions, according to (Samoye, 2009) information is vital to the decision making process, it is necessary that required information is acquired at the appropriate time and its content is well understood by the user for optimal decision making (Myers & Majluf, 1985) examined information asymmetry between management and investors in the financial market and found information asymmetry playing important role in determining a firm's financing and investment decisions potential undertakings.

The last theoretical model within the cash flow theory of investment decision is the managerial model which states that managers stand a higher chance of making good investment decisions and thus they should be highly engaged in the decision making process, according to (Akintoye & Olowolaju, 2008) managers are perceived to have more information than other investors regarding a firm, thus managers are vital in investment decision analysis. In a chronological sense, the managerial approach to investment predates the information theoretic approach. While the managerial theory of the firm is due to (Marris, 1963), the formal modeling and testing of the managerial theory of investment came with (Mueller, 1972) whereas the information theory is mainly due to (Akerloff, 1970).

#### **2.4.2 Acceleration Theory of Investment**

This theory is based on the concept that investment is positively related to the expected levels of production output, thus if demand increases there shall be an increase in



investment commitment, this indicates that demand conditions have the capacity to influence investment decisions. The simplest form of this theory is the concept of investment demand or the rigid Accelerator Theory, was formally elaborated by (J. M. Clark, 1917) who stated that investment is simply directly proportional to changes in output. The form of investment behavior advocated by the rigid acceleration theory did not come necessarily from a profit maximization objective. It could be argued that this model only recognized demand or changes in demand as determinant of investment behavior, though output is not a very good proxy of demand because it is restricted by the potential existing capacity of production. The rigid accelerator theory assumes that firms are always in equilibrium, that is that there no excess capacity (Anotonakis, 2001).

A more elaborate approach from the original rigid accelerator theory of investment behavior is given by the flexible accelerator theory, this theory originated from (Chenery, 1952) and (Koyck, 1954). It overcomes one of the major shortcomings of the rigid accelerator, namely that capital stock is always optimally adjusted. Capital is adjusted towards its desired level by a certain proportion of the discrepancy between desired and actual capital in each period.

In general, we could argue that the flexible and rigid accelerator models considered so far, do not take explicit account of factor prices and therefore they are not amenable to a discussion of the effect of investment incentives. This is a serious shortcoming which is overcome in the neoclassical Theory.

### **2.4.3 Neoclassical Theory of Investment**

The Neoclassical Theory of investment behavior was considered as a serious alternative to both the rigid and flexible model explanations of the acceleration theory of investment, as an explanation of investment behavior by firms. This theory's origins are found in the works of (Roos & Victor S Von Sjeliski, 1943) which tried to link investment decision making process to factor prices in the production exercise away from just the output being the single determinant of investment decisions. The theory is based on an optimal path for capital accumulation, according to which the desired level of capital services at every period is derived from a maximization of the present value of future expected net revenue, over an infinite number of years the desired level of capital services thus derived is a function of relative prices and not output (Anotonakis, 2001) . This theory is termed as a model of investment behavior in which the firm's desired capital stock is derived from the propositions of neoclassical economic theory of the firm.

The central feature of the neo-classical theory is the response of the demand for capital to changes in relative factor prices or the ratio of factor prices to the price of output, (Jorgenson, 1963), this argument about the main fundamental approach of the neoclassical theory is also highlighted by (Eisner & Nadiri, 1968) in their study where they do state that the essential burden of Jorgenson's argument is that substitution parameters have been improperly neglected or ignored in most previous work on the investment function. They accept the widely held view of the demand for capital stock as a function of the output produced but argue that it is also a function of the relative price of output and capital. To them investment itself then consists of the replacement of

depreciating capital stock and a distributed lag adjustment of capital to its (usually changing) equilibrium value.

#### **2.4.4 Q Theory of Investment**

This theory relates to the rate of investment as a function of Q, where Q is the ratio of the market value of new additional investment goods to their replacement cost (Tobin, 1969). If investors value assets at prices which are greater than replacement costs, then there are strong inducements for investment in reproducible real capital (Ciccolo, Fromm, & Marshall, 1979). This theory was in sharp contrast to the output-oriented models like neoclassical model and acceleration model in that it attempted to explain investment on a financial basis in terms of portfolio balance; this translates to the concept based on the q ratio; that is the ratio of the market value of capital to its replacement cost.

The use of the firm's market value as proxy for potential investment undertakings was proposed by (Grunfeld, 1960) who stated that investment depends on the market value of the firm in a direct correlated way, this approach to investment being influenced by the market value of the firm can be seen as a relation to Tobin's Q theory.

While the accelerator, neoclassical, modified neoclassical, and the cash flow models do not explicitly consider the optimal adjustment path for the firm's capital stock when it is away from that level, the Q theory characterizes the complete evolution of the capital stock from the underlying optimization problem of investments differ from the preceding investment models such as the accelerator models and Jorgenson's model in that it is not output-based. Investment is thus not viewed as a function of output as in the previous

models, but instead assumed to be determined by the firm's market value this contrast is noted by (Jarmila, Karin, & Alfons, 2008). The contrast is also elaborated by (P. Clark, 1979) where he states that the Q models should not be viewed as complements but rather substitutes to the standard neoclassical models.

## **2.5 Investment Decisions and Financial performance in Small Scale and Medium Scale Enterprises**

Small and medium scale enterprises are characterized by a small size compared to large business ventures, this does influence the investment decisions they take and consequently does have an effect on their financial performance (Cohen & Klepper, 1996). A small firm's with less physical assets to secure loans to finance their investment decisions can have a disadvantaged position with their larger counterparts who have numerous assets and larger economies of scale advantage, this limited access to finance due to less assets limit the small firm in executing their investment decisions can lead to poor overall financial performance (Cohen & Klepper, 1996). Failure for adequate liquidity availability that ensures investment optimization and a positive financial performance does affect decision making process in the SMEs.

According to (Tybout, 1983) the liquidity effect of financial rationing refers to the fact that a rationed firm has difficulty obtaining cash quickly when the opportunity for profitable investment arises. Since most SMEs do not have accessibility to capital markets they tend to finance themselves through owner savings and taking loans from

financial institutions such loans usually come along with conditions that shall influence future investment decisions that the firm opts to take (Blinder, 1987) . The liquidity effect of credit rationing on investment effect does limit investment spending by the firm and its potential optimal financial position. The terms under which credit facility is available influences investment decisions of a firm especially in those firms that lack easy access to credit opportunities (Bernanke, 1983).

Expected output or demand is also a factor that does influence investment decisions in SMEs and has a relationship with its financial performance, according to (Levasseur, 2002) investment with regard to market expectations helps to fight off the competitive pressure from other firms within or outside the industry by improving effectively the expected sales performance thus ensuring profitability and growth of the firm. A vibrant SME sector is essential to global development, this calls for substantial engagement in the investment capacity (Organisation for Economic Co-operation and Development, 2000).

Most SMEs are characterized by a centralized form of leadership where owner personal discretion regarding the investment process does influence the investment decisions that the firm takes and consequently the financial position that a firm takes. It is evident that management analysis and decisions regarding an investment influence the firm's overall financial performance, (Akintoye & Olowolaju, 2008). According to (Matsushima & Takechiz, 2009) whereas in large companies the investment decision is directed by their organizational form and company rules governing the determination of investment , it

may be reasonable to consider that the investment decisions of SMEs are easily associated with the discretion of their owner, therefore there may not be a close relationship between business sentiments and investment activities in an SME firm, this indicates that there could be a close relationship between the owner's entrepreneurship traits and investment decision making behaviors. SMEs do not possess the adequate technological capacity and expertise that would highly aid in investment decision making process in an optimal manner, rather it is the skill and enthusiasm of the owner or the manager that typically drive forward and shapes the character of investment decisions, (Harindranath, Dyerson, & Barnes, 2008) .

The uncertainty that surrounds various investment decisions in SMEs is sensitive to their financial performance, the importance to evaluate investment decisions in regarding to the various levels of risk as well as the perception of those risks by the risk taker is noted by (Ogiji & Ejembi, 2007) where he states that the conditions of risk relate basically to the state of an investor's knowledge about underlying factors, which affect the outcome of investment decisions, small and medium enterprises risks can be categorized in to four forms that is; business risk, operational risk, events risk and financial risk. An investor can more likely either be risk taking or risk averse in making investment decisions (Ogiji & Ejembi, 2007) this indicates the importance to the investment decision making process regarding the risk nature of the decision maker in an SME business set up.

## **2.6 Empirical Evidence**

According to (Cohen & Klepper, 1996) previous research in the area of financial performance relationship with investment decision have shown that the level of investment in aspects like research and development and labor efficiency is a good predictor of financial performance of firms, yet they are far from being able to establish the nature of causal relationships between the key investment and performance variables. Some studies document a fragile and typically insignificant relationship between firms' investment expenditure and their productivity growth suggesting that issues of causality are important in evaluations of investment effects as well as for various policy decisions (Avkiran, 1995).

The study by (Cohen & Klepper, 1996) first examined the cross-sectional nature of the investment decision functions and firm performance relationships. The empirical results were based on data from three consecutive Swedish innovation surveys. A common multi-step estimation approach which accounts for both simultaneity and selection biases was applied. As expected, the results showed evidence of a strong and highly significant relationship between aspects of investment like investment in research and development as well as increasing investment in productivity through innovation production, measured as share of sales associated with new product and processes at the firm level. Next they conducted time dimension analysis by selecting the 1998 national innovation survey firms and performing a simple forward-backward analysis. They found that investment in research and development is a good predictor of future growth in most firms, and also not only in profit and employment, but also in sales and value added, the same related

findings were made by (Avkiran, 1995). Moreover, no investment on aspects like research and development or only if it existed only on moderate intensity that did predict growing debt for the firm. The backward analysis indicated that the growth rate of profit, value added and sales are fairly good predictors of future research and development intensity, while the growth rates of both equity and debt are negatively related to future investment decisions reflecting research and development intensity. The capital stock was found to be neutral to most investment decisions in simple descriptive statistical forward and backward analysis. For the Granger causality analysis they conducted causality tests based on estimation analysis. The test results indicated a necessity to account for unobservable firm and time effects, thereby suggesting within as the appropriate estimation method. In their study (Cohen & Klepper, 1996) had estimated aspects like research and development and gross physical investment variables and the three sales, profit and employment performance variables. They had applied five models where they used a lag length of two applied to each of the dependent and independent variables. Due to heterogeneity in causal relationship by size of firms studied as revealed in the preliminary analysis, they conducted the test separately for the groups of small and medium and large enterprises. In addition, they controlled for a number of conditional variables including indebtedness, human capital and knowledge intensity in firms' production technology. The investigation was whether there is a causal relationship between investment and performance of firms and whether the relationship is two-way causal.



In addition (Alleyne, 2010) studied the persistency of the relationship and its differences across firm sizes. Results based on the SME sample showed evidence of different relationship between the investment and financial performance variables. Current values of all indicators were found to be related to their own lags. The same observation had been made by (Cohen & Klepper, 1996) where they found that in the case of research and development, employment and profit the sign changed between the two lags. For instance; sales is strongly related to those investment decisions that highly relate to profit optimization and labor efficiency for instance employment expenditures but not to research and development expenditures and gross physical investment. They also found that there are differences among the two sizes concerning the feedback from profit to gross physical investment. This indicates presence of capital constraint among the lower profitable SME firms. SMEs finance their investment needs with internal funds. The difference is however not statistically strong. Profit, in turn, is strongly associated with physical investment but not with research and development related investments. Despite short lag structure, differences are also found in the longevity of the effects. Their causality results were based on the sample of large firms that differed in several respects to those of the SME size. Even here they did find that different indicators show evidence of difference in determinant relationship among the variables.

According to the findings by (Cohen & Klepper, 1996) the positive casualty of relationship between investment decisions and financial performance did exist regarding the short term duration of study and more long term duration findings needed to be studied.

## **2.7 Summary of Literature**

From the various studies it is evident that a firm's financial performance is influenced by the investment decisions that the individual firms do make, regarding this observation it is noteworthy to take consideration of the various factors influencing investment behavior of individual firms such factors include; availability of liquidity, reliable market information regarding a target investment, as well as desire by the managers to make investment decisions, it is also reasonable to state that both current and expected levels of demand and relative factor prices are likely to affect and determine the current level of investment, the reason for an individual firm to make investment decisions is mainly linked to the firm's customized status, this is evident from the conflicting empirical findings regarding investment decision theories.

A highly reliable theory of investment behavior by individual firms should include all the determinants mentioned in this chapter. After all, it has been stated that investment decisions are determined, in a part, by those unexplained waves of optimism and pessimism called animal spirit (Keynes, 1936). This then might too serve as another reason the lack of a generally accepted single investment theory, which can also be individually pointed out as the most prominent one that leads to an influence on the financial performance of firms.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Research methodology is a way to systematically solve the research problem (Kothari, 2009). The chapter presents the procedures that were used by the researcher to conduct the study. It describes the research design, target population, sampling design, data collection instruments, data collection procedure, data analysis procedure and its presentation format.

#### **3.2 Research Design**

The study being descriptive in nature adopted a survey research design, whereby the objective was to test the relationship between investment decisions and financial performance of the study population.

#### **3.3 Population and Sample**

According to the municipal council of Limuru head office which does the issuance and renewal of permits to SMEs that operate within Limuru town, there are a total of 1,248 registered SMEs within Limuru town (Bari, 2012).

Since the target locality consists of too many SMEs that are not homogeneous, it was necessary to take a stratified sample survey and the conclusions made were dependant on the sample findings, a sample survey was preferred to a census because it is time saving, convenient, leads to quick results ensuring an increase in accuracy, it was also be

manageable and gave an in depth information on the study. The main stratifying parameter for the strata, used by the researcher in this study was the type of sector that the business firm currently engages in other parameters used were; the number of employees and the number of years of existence that the firm has. These parameters offered a more reliable estimate that gave a more representative and detailed view of both the concern strata and in general the entire study population area.

The population of SME interest in the study comprised a sample of 156 small and medium enterprises that are located within Limuru town. This sample had been reached with the sole objective of having unbiased and appropriate representation of the entire population of study area. The sample population figure had been reached through the application of Taro Yamane's formula of population sampling (Yumane, 1967).

The formula states that;

$$n = \frac{N}{1 + N(e)^2}$$

Where n is sample size

N is population size

e is level of precision/sampling error

In this study therefore 156 respondents would have been be the lowest acceptable number of response to maintain a 92% confidence level and a 8% sampling error, according to

(Jill & Rodger, 2003) a sampling error of less than 10% and a confidence level of more than 90% is acceptable, the study therefore adopted a sampling error of 8% to determine the minimum sample size that could be used for the purposes of this study.

### **3.4 Data Collection**

The study used both primary data and secondary data. Primary data was gathered through interview guide and questionnaires with respondents as those charged with making investment decisions in the firms under study or their agents. The questionnaire included closed ended questions as well as questions that were presented on a likert type scale; the likert type scale is commonly used in business research because it allows participants to respond with degrees of agreement or disagreement. The questionnaire was structured in to two sections; the first section did seek to capture the general information of an entity whereas the second section was concerned with those investment decisions that are made by the business entity as well as their resulting effect on the various measures that are applied to gauge financial performance in a firm.

Secondary data though very limited on its availability was obtained from the various financial records that the respondents did possess, among those were the financial documents like; cash flow statement, ledgers, receipt books, income statement, as well as the balance sheet all of which assisted the researcher to analyze both the investment decisions that the firms had undertaken as well as analyzing the resulting financial performance for those firms.

### **3.5 Data Analysis and Presentation**

After the field work, before analysis, the questionnaires were checked for completeness. This was done through scrutiny so as to minimize the variations due to missing responses, multiple entries and blank questionnaires. The information was coded and an exploratory analysis performed to ensure that the gathered data was free from outliers and effect of missing responses was at minimum.

Data was analyzed using both inferential and descriptive statistics, the Statistical package for Social Sciences package (SPSS) statistical software. The software was used by the researcher for ease and appropriate data analysis exercise. The use of descriptive statistics enabled the researcher to meaningfully describe independent factors in the study as well as helping to indicate the number and percent of respondent rate and rank variable under the study. Rank analysis was also be used to meaningfully analyze and display data gathered from the respondents. The inferential Statistics used was regression analysis; which enabled the researcher to test the degree of relationship between investment decisions that firms in the SME sector do make and the effect those decisions have in those firm's financial performance.

Data presentation was done by the use of pie charts, bar graphs, percentages and frequency tables for easy understanding. The final presentation was both on print and soft mode.

### 3.6 Model Specification

The basic concern of this study was to establish the relationship between investment decisions and financial performance of SMEs in Limuru town in Kenya. According to (Almas & Loof, 2008) financial performance can be measured using proxies like sales growth, return on equity, liquidity, solvency, and profitability. The variables used to represent investment decisions were; property acquisition, plant and equipment acquisition, existing equipment replacement (with same levels of production capacity retained), already existing equipment upgrade, portfolio diversification.

The study adopted both the linear regression model and likert scale measures to assist the researcher reach to his conclusions, the general linear regression model which the study adopted is provided below:

$$y_i = \alpha + \beta_1 X_i + \epsilon$$

Where  $\alpha$  is the intercept,  $\beta_1$  is the slope. The  $x$ 's and  $y$ 's are the data quantities gathered from the sample or the population in question, where  $x$  is the independent factor represented by the firm's expenditure on investment,  $y$  is the dependent factor represented by the gross sales income of the firm and  $\epsilon$  is the standard error estimate.

Whereas  $\alpha$  and  $\beta$  are the unknown parameters ('constants') that have been estimated from the data.

In this research however, the parameters did have the following definition of expressions;  $\alpha$  which represents the regression coefficients, measured how many units of financial performance represented by gross sales income that would change by a unit change in investment expenditure by the firm,  $\beta$  does represent the regression coefficients measured how much units of financial performance represented by gross sales income would change with a unit change in any other factors that affect the specific investment decisions of a particular individual firm whereas  $\epsilon$  represents the error term which picks up the unpredictable part of the response variable  $y_i$ , the error term is normally poised to be normally distributed.

The model that was used to show the relationship between the variables is formulated below:

$$Y = f(X)$$

Where;

Y represents the financial performance which in this study was represented by the gross sales revenue per annum in the firm and X represents the investment expenditure undertaken by the firm per annum in the execution of its investment decisions.

### **3.7 Test and Validity of Measures**

According to (Frankfurt & Nachmias, 1996), the known group technique of measures validity uses the knowledge from those sources that are conversant with the subject under



the study. Such sources that the researcher has used in to assess the validity of measures in line with the known groups technique of measure validation include; some practitioners and experts in the SMEs sector, as well as wide consultation with fellow students in the course.

The researcher did run a random re-test exercise within the population sample of study where both questionnaire results from the test and the re-test exercises were analyzed and compared for correlation so as to ensure the reliability of the measures that the researcher used in this research.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Data Analysis and Findings

For the purpose of data analysis, one hundred and fifty six respondents were targeted, this figure had been derived through the application formula of Taro Yamane's population sampling (Yumane, 1967).

##### 4.1.1 Response Rate

Out of the 156 targeted respondents all responded through filling of a questionnaire which was administered through both interviewing method as well as through the drop and pick later method. The response represented 100% response rate. This response was considered sufficient for data analysis.

**Table 4.1.1: Respondent Rate**

Number of responses	Frequency	Percentage
Successful	156	100%
Unsuccessful	0	0%
Total	156	100%

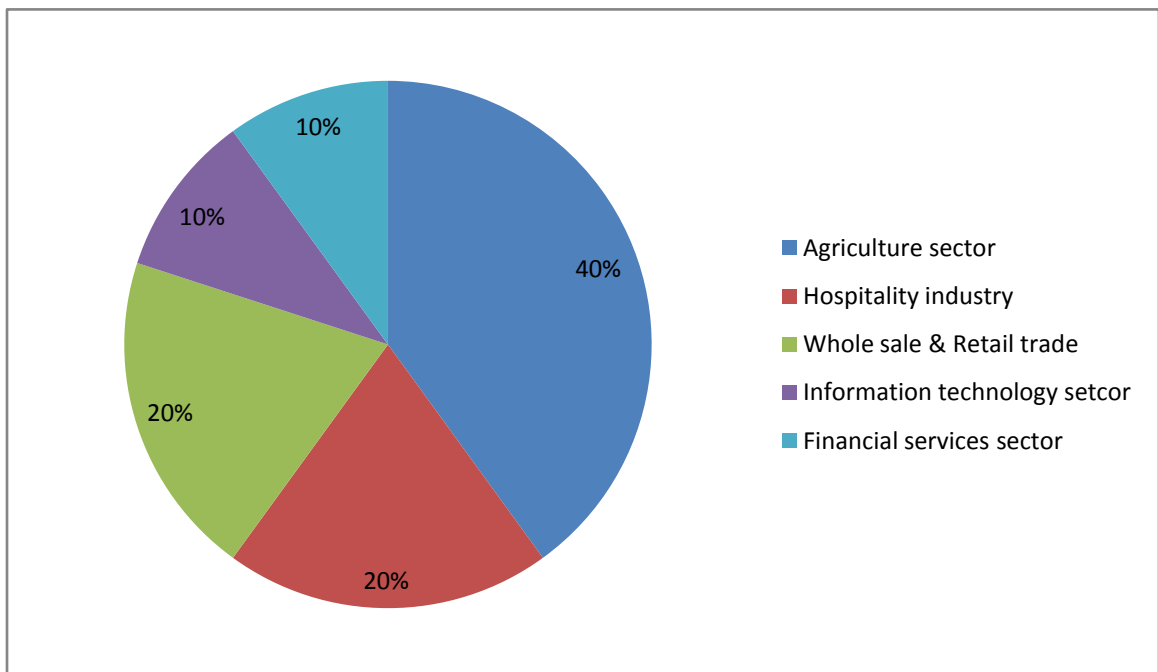
Source: Survey questionnaire

## 4.1.2 Respondents General Information

### 4.1.2.1 Information in Terms of Sector Distribution

Out of the 156 positive responses, 63 respondents were in the agricultural sector that is 40% of the responses, 32 respondents were in the hospitality industry which represented a 20% population, 31 respondents were in the wholesale and retail trade which represented 20% information technology and financial sectors had 15 respondents which represented a 10% response rate for each of the two sectors.

**Figure 4.1: Information in terms of sector distribution**

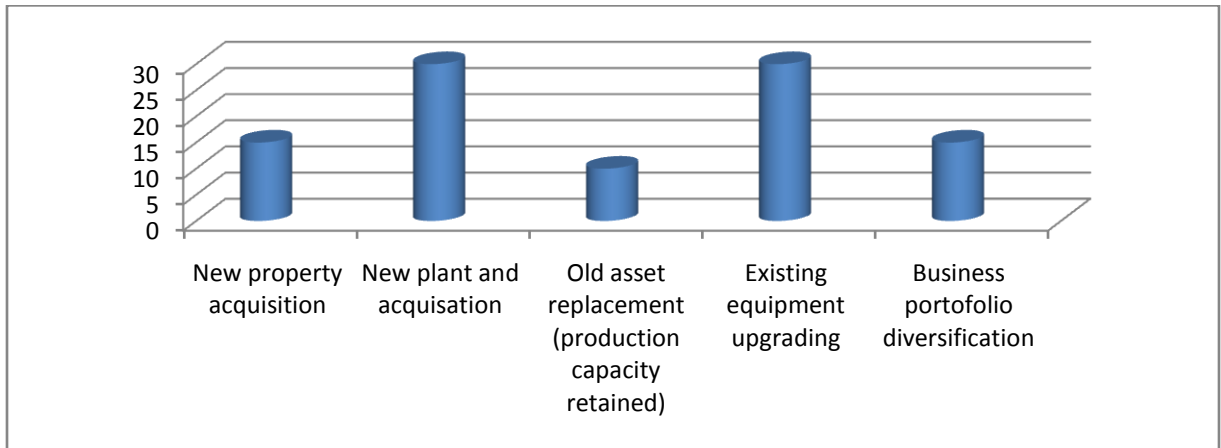


Source: Questionnaire Survey

#### 4.1.2.2 Information on Preferred Form of Investment Decision

New plant and equipment purchase as well as existing equipment upgrading were the most preferred forms of investment decisions by respondents indicated so. Property acquisition and business portfolio diversification had 30% of the respondents preferring them, whereas old asset replacement with existing production capacity retained only had been indicated as the most preferred form of investment decision by 10% of the respondents.

**Figure 4.2: Preferred form of investment decision**



Source: Questionnaire Survey

#### 4.1.3 Factors Influencing Investment Decisions in the Firm

The table below gives forms attributed to influencing the undertaking of investment decisions, since the total number of respondents were 156 and the maximum point for a factor was 5 (extremely high extent) then the maximum score was supposed to be 780, in the questionnaire, in question five.

**Table 4.2: Factors influencing investment decisions in the firm**

	<b>Factor</b>	<b>Maximum score</b>	<b>Actual score</b>	<b>Percentage (%) score</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Rank</b>
1	Funds availability to the firm	780	390	50	3	2	4
2	Need to meet target output	780	507	65	3	2	2
3	Need to improve internal effluence	780	741	95	5	0	1
4	Need to diversity portfolio investment	780	390	50	3	2	5
5	Information availability regarding the investment opportunity	780	468	60	3	2	3

Source: Questionnaire Survey

#### **4.1.4 Preferred Measures of Financial Performance by the Firms**

The objective of this study was to assess the relationship between investment decisions and financial performance of small and medium scale enterprises, thus there was need to assess the most preferred form of financial measure for individual firms.

According to the survey most firms preferred liquidity measures approach as a way of evaluating financial position, measures like cash in hand and current asset ratio approach were most utilized, the reason behind this was that those firms highly needed short term financial commitments at a higher rate thus need to continuously check liquidity status, sales turnover measures followed liquidity measures at the most preferred measures, long term solvency measures were also utilized by the firm owners to assess their financial position.

The table below gives a summary of those financial performance measures that firms preferred in evaluating their financial performance. Since the total number of respondents were 156 and the maximum point for each measure was 5 (strongly considered), then the maximum score for each measure was supposed to be 780.

**Table 4.3: Measures that are preferred in measuring financial performance**

	Financial performance measure	Maximum score	Actual score	Percentage score	Mean	Standard deviation	Rank
1	Liquidity levels	780	702	90%	5	0	1
2	Sales turnover	780	663	85%	4	1	2
3	Long term solvency	780	468	60%	3	2	3

4	Shareholder investment return measures	780	468	60%	3	2	4
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Source: Survey questionnaire.

#### **4.1.4 Amount of Gross Sales Earnings per Annum.**

To assess the financial performance of respondents the questionnaire inquired the average amount of gross sales earnings per annum , the gross sales measure was most preferred since many respondents in the SME sector had easiness in revealing the gross sales amount other than revealing other measures like net income, this phenomenon was more triggered by the fact that many do not have financial records as well as their fear of business performance confidentiality., more than half of the respondents indicated that they had a gross earning ranging from ksh. 400,000 to 1 million. Only 10% indicated that they had a gross of more than ksh 1 million.

#### **4.1.5 Average Amount of Overall Profitability for the Last 3 years**

Profitability was used to assess the financial performance of the respondent firms an average duration period of three years was used and the respondents had to indicate the average amount that they were making in net revenue. Most respondents who had reported high gross sales earnings indicated that there was a sharp decrease in their overall profitability this was as a result of increased operating costs for the ventures.

#### **4.1.6 Effects of Investment Decisions Taken by Small and Medium Scale Enterprises to the Firms Resulting Financial Position**

The objective of the study was to assess the relationship between investment decisions that SMEs do take and the resulting financial performance. To achieve this objective, four different questions were formulated each dealing with a different form of financial performance measurement and linking the effort that various investment decisions have on that measure. A five point likert scale was adopted with each investment decision effect on a particular a particular financial performance measure assessed.

#### **4.1.7 Effect of Investment Decisions on the Firm's Liquidity Performance**

Investment decisions in form of acquiring new plants and equipment seemed to have the most positive effect on the liquidity position of majority of respondent firms; this was then followed by existing equipment upgrading decisions. The main attribution on this trend from the interviewing of the respondents by the researcher was that equipment upgrading and purchase improved production levels thus ensuring a continuous supply to the market in a fast, more direct and efficient manner. Portfolio diversification was also cited to improve liquidity but only when the new reaches a venture break-even point.



**Table 4.4: Effect of investment decisions on liquidity performance**

	Investment decision	Total score	Actual score	Percentage score	Standard deviation	Rank
1	Property acquisition	780	585	75%	4	3
2	Plant and equipment acquisition	780	702	90%	5	1
3	Old asset replacement (existing production capacity retained)	780	429	55%	3	5
4	Existing equipment upgrading	780	702	90%	4	2
5	Business portfolio diversification	780	546	70%	3	4
6	Others	780	0	0%	0	6

Source: Questionnaire Survey

#### **4.1.8 Effect of investment decisions that the firm takes on its long term solvency status**

Existing equipment upgrading for many respondents was cited to have a positive effect in the firms solvency status, upon interviewing the reason was that once the equipment are upgraded it results into efficient rise in revenues thus easiness to service financial

obligations, also most respondents cited that at most times equipment upgrading requires retained earnings and savings as the main sources of financing, unlike other investment decisions like property and equipment acquisition that involve huge amounts of capital outlay that result for external financing which result in to a negative solvency status. Investment decisions involving property acquisition, business diversification and plant acquisition were indicated to also have a high an effect positive effect on increasing the firm's solvency.

**Table 4.5: Effect of investment decisions on long term solvency status of the firm**

	Investment decision	Total score	Actual score	Percentage score	Mean	Standard deviation	Rank
1	Property acquisition	780	600	75%	4	1	1
2	Plant and equipment acquisition	780	546	70%	3	2	3
3	Existing equipment Upgrading	780	507	65%	3	2	4
4	Old asset replacement (existing production capacity retained)	780	390	50%	2	3	5
5	Business portfolio diversification	780	546	70%	4	1	2
6	Others	780	5	0%	0	5	6

Source: Questionnaire Survey

#### 4.1.9 Effect of investment decisions on sales turnover and firms profitability

Existing equipment upgrading and plant and equipment acquisition decisions were stated to have the greatest effect on the firms' profitability and sales turnover changes than other investment decisions. Having a more direct effect on the production efficiency had resulted in to those two investment decisions to be regarded as the most effective in regard to sales turnover changes and profitability.

**Table 4.6: Effect of investment decisions on the sales turnover**

	Investment decision	Total score	Actual score	Percentage score	Mean	Standard deviation	Rank
1	Property acquisition	780	390	50%	2	3	5
2	Plant and equipment acquisition	780	741	95%	5	0	1
3	Existing equipment upgrading	780	468	60%	3	2	3
4	Old asset replacement (existing production capacity retained)	780	702	90%	4	1	2
5	Business portfolio diversification	780	390	50%	3	2	4
	Others	780	8	0%	0	5	6

Source: Questionnaire Survey

#### 4.1.10 Effect of Investment Decisions on Shareholder Investment Measures

Most respondents indicated purchase of new plant and equipment and equipment upgrading to have the highest effect on their return on investment. Business portfolio diversification decisions and old asset replacement were indicated to have the minimum effects on the financial performance of the respondents.

**Table 4.7: Effect of investment decisions on shareholder investment measures**

	Investment decision	Total score	Actual score	Percentage score	Mean	Standard deviation	Rank
1	Property acquisition	780	468	60%	3	2	5
2	Plant and equipment acquisition	780	663	85%	4	1	1
3	Old asset replacement (productive capacity retained)	780	468	60%	3	2	4
4	Existing equipment upgrading	780	624	80%	4	1	2
5	Business portfolio diversification	780	507	65%	3	2	3
6	Others	780	6	0%	0	5	6

Source: Questionnaire Survey

Though the overall financial performance in a firm is as a result of diverse attributes from the survey it is evident that prudent investment decisions are vital in the improvement of financial performance through boosting production efficiency by means like plant and equipment purchase and upgrading as well as revenue portfolio diversification in means

like property acquisition and business diversification, this is evident from the above analysis. Thus there exists a direct relationship between investment decisions and the resulting financial performance of SMEs.

#### 4:1:11 Regression Analyses

The research study wanted to establish the relationship between investment decisions and financial performance of small and medium scale enterprises in Limuru town, Kenya. A regression analysis was carried out by the researcher with financial performance in terms of the gross sales revenue as the dependent variable and investment expenditure as the independent variable the following analyses was made;

##### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.170 <sup>a</sup>	.029	.023	621361.2544

a. Predictors: (Constant), VAR00001

##### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.77E+12	1	1.774E+12	4.596	.034 <sup>a</sup>
	Residual	5.95E+13	154	3.861E+11		
	Total	6.12E+13	155			

a. Predictors: (Constant), VAR00001

b. Dependent Variable: VAR00002

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	323654.6	56226.967		5.756	.000
	VAR00001	.194	.090	.170	2.144	.034

a. Dependent Variable: VAR00002

From the regression analyses results table above, VAR 00001 represents the independent variable that is expenditure on investment activities whereas VAR 00002 represents the dependent variable that is gross sale income for the firm.

From the model summary the value R represents the correlation value which shows the strength between the independent and the dependent variable, from this study there was a weak relationship between the independent variable and the independent variable since R was 17.0 %.

The coefficient of determination in this study represented by R squared from the model summary table and it explains how well the changes in the dependent variable (financial performance) can be explained by the change in the independent variable (investment expenditure), in this study the coefficient of determination is 29.0%.

The resultant regression equation in this study is shown as follows;

$$Y = 323654.6 + 0.194X + 621361.2544$$

## **4.2 Summary of Findings and Interpretations**

The results analyzed relates to one hundred and fifty six respondents out of a total target population of one hundred and fifty six respondents thus the successful questionnaires represent a hundred percent of the targeted population by the researcher.

Investment decisions are vital and integral in effective business operations; most SMEs do prefer diverse investment funding options with Sacco loans as the most preferred by 40% of the total respondents. This explains the emergence of numerous micro finance institutions as well as commercial banks that are introducing financial products which are targeted in to the micro enterprise sector of the economy and which do compete with micro finance institutions loan products. Other forms of internal financing like personal savings and retained earnings are also preferred since they attract no external servicing cost, the least sought form of investment financing as per the survey are the commercial bank loans.

The main forms of investment decisions taken by the respondents were acquiring plant and equipment as well as upgrading existing equipment, these two forms of investment decisions and expenditures did attracted 60% of the respondents. The main reason behind taking investment decisions was indicated as the need to meet the firm's target output. This reason attracted a 95% score. Funds availability and need to diversify portfolio were the least considered reasons for undertaking investment decisions.

Financial performance is of essence to attain the objectives of this study, 55% of the respondents indicated that over the last three years they had experienced a positive increase in overall financial performance. The main reasons stated regarding this were slightly improved market conditions, sustained loyalty by customers as well as personal attributes like hard work and quality service provision to clients. There was also a substantial decrease in overall financial performance as indicted by 30% of the respondents, the main reasons stated for this observation were; increased operational costs and competition forces. 15% of the respondents indicated that they had noted no significant change in the overall financial performance for the last three years; the main reason cited for this was continuous increased operational costs thus resulting to a break even kind of business operation.

The respondents utilized various measures to assess the financial performance of the firms, the most commonly used type of measures are the liquidity measures of financial position with a score of 90% from the respondents stating that they preferred them. The main reason given for this was that in nature SMEs do have a continuous need for short term obligations commitments, thus making continuous liquidity assessment an issue of great importance. Sales turnover assessment was also preferred by respondents attaining a score of 85%, the reason for this was the vital need for the firm to assess product or service demand by the customers on a continuous basis. Long term solvency measures and shareholder return measures attracted a minimal score with most respondents citing them as secondary measures with immediate business performance in terms of sales turnover and liquidity health as the measures of performance.



The financial position of most respondents has been affected by operational costs whereas more than 64 respondents (40%) indicated they had gross sales earnings of more than ksh. 700,000 only 36 respondents (23%) report an overall profitability of more than ksh. 700,000. The main reason they attributed to this was the increase in operational costs in form of marketing expenses, rent expenses and power bills.

The respondents indicated that investment decisions in the form of equipment upgrading and acquisition had the highest effect on the firms liquidity performance with equipment upgrading having a 90% score on its effect on liquidity performance whereas equipment purchase had a score of 90% effect on liquidity performance. In regard to the effect of investment decisions on sales turnover and profitability both equipment upgrading decisions and purchase decisions had the highest scores with both having 95% and 90% scores respectively. This observation can be attributed to the direct relationship that those decisions have on the production output whereby an upgrade in production efficiency boosts output levels and also quality.

In terms of financial performance in solvency capacity of the business, investment decisions in the form of property acquisition was indicated to have the highest effect on the solvency status of the firm, business portfolio diversification was also ranked to have a substantial effect on the solvency status of the firm, the reason behind this is because most of those capital expenditures require external financing due to the great amounts involved in this has a direct effect on the long term financial obligations of the SMEs.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

Through the regression analyses the study found there exists a weak relationship between investment expenditure and financial performance in terms of gross sales revenue. Regardless of the weak relationship between the two variables most SMEs commit their resources in investment activities in anticipation of improved output and resulting sales revenue. According to the data collected by the researcher from the questionnaires through the use of likert scale based questions most SMEs prefer to make investment decisions through investment expenditures targeted mainly to those elements that are more concern with increasing their production efficiency. In relation to this the main forms of investment decisions undertaken by the respondents were plant and equipment acquisition as well as their upgrading with the main goal of enhancing the firm's productivity efficiency and better financial performance from increased sales revenue.

In regard to the various measures used to analyze financial performance, liquidity measurement was the most preferred; the reason for this according to the respondents is that their firms do have a continuous need for short term obligation requirements, thus making sustained liquidity analysis an issue of great importance. Measures that assess sales turnover were also preferred since most respondents stated it important for their firms to continuously assess its competitiveness in market demand satisfaction.

## **5.2 Conclusions and Recommendations**

Though the overall financial performance in a firm is as a result of diverse attributes, like prudent operational decisions and undertaking of effective financing decisions the survey shows that prudent investment decisions are vital in the improvement of effective production efficiency which results to better financial performance in the firm. From the survey it is evident that the financial decisions that the firm takes for instance; plant and equipment acquisition, property acquisitions, existing asset upgrading efforts and portfolio diversification do affect the efficiency of the concern firm in terms of productivity efficiency and its financial results.

The following recommendations can be made from this study;

First the study reveals that investment decisions have an effect on production efficiency and thus an effect on financial performance. SMEs operators need to continuously analyze the investment decisions and expenditures that they make and align them with the firm's objective for them to be effective accountable in their operations. Suitable documentation for SMEs is vital for their continuous analysis of business investment expenditure as well as their financial performance.

Finally a people effort by universities, private sectors and other interested stakeholders spearheaded by the government should sensitize the firms and general public on the importance of research to a country's development and hence the need to co-operate with researchers especially during the data collection stages. Such a sensitization effort would greatly increase response rate and accuracy of research findings.

### **5.3 Limitations of the Study**

The research was constrained by various factors for instance some respondents did not have all the relevant data required for the purpose of the study. Most of the respondents could not show the researcher their financial statements due to either lack of documentation as well as their fear of confidentiality of their business actual performance. This fear was in spite of the respondents being assured by the researcher that their responses would be used solely for academic purposes. Finally time resource was also constrained especially due to the long time the respondents took to respond, most of them due to inability to read and understand the questionnaire had to be interviewed in their language of understandability all this efforts to gather information took much of the researchers time resource.

### **5.4 Suggestions for Further Research**

The study focused on the relationship between investment decisions and financial performance of SMEs only, a study of the effect of investment decisions on the financial performance of large companies can also be conducted, the results can be compared and contrasted with those of this study to detect the relationship between effects of investment decisions in large companies with the effect that investment decisions have on small and medium scale enterprises. Finally since most SMEs do not have adequate financial documentation a study can be conducted to assess the effect of book keeping on the effective performance of small and medium scale enterprises, to assess the challenges those firms have in both the accountability aspect of their operational performance as well as the challenge of seeking external financing without adequate documentation.

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## APPENDICES

### Appendix 1: Introduction Letter

Crispus Ndungu Karanja,

University of Nairobi

School of Business

P.O. Box 30197

Nairobi.

### Dear Respondent

Am Crispus Ndungu Karanja, a student at the University of Nairobi business School, undertaking a course of masters in business administration (MBA), currently am doing a research titled, “the relationship between investment decisions and financial performance of small and medium scale enterprises in limuru town, Kenya”.

Below is a questionnaire that poses some questions about the investment decisions that your firm takes as well as their resulting effect on the various aspects of its financial performance. I would highly value your views and also would greatly appreciate it if you would answer these questions as fully as you can. The information gathered from you shall be treated with outmost confidentiality and shall be used for purely academic purposes only, please be assured that there is no such thing such as the right and wrong answers, what is important is your individual responses.

Yours sincerely,

.....

Crispus Ndungu Karanja

(Researcher) Thank you very much.

**Appendix II: Questionnaire**

**THE RELATIONSHIP BETWEEN INVESTMENT DECISIONS AND  
FINANCIAL PERFORMANCE OF SMALL AND MEDIUM SCALE  
ENTERPRISES IN LIMURU TOWN, KENYA.**

**SECTION ONE: GENERAL INFORMATION**

**PART (I) THE FIRM'S SPECIFIC INFORMATION**

1. Name of the firm.....

2. Main product line.....

3. What is the firm's management structure?

Company  Partnership

Sacco  Sole proprietorship

Other form of management structure (specify).....

4. What sector is your business involved in? **(Tick where appropriate)**

a) Hospitality

b) Agriculture

c) Wholesale and retail trade

d) Information technology services

e) Financial services

f) Other sectors (Specify).....

**PART (II) RESPONDENT INFORMATION**

1. Job title of the respondent .....

2. Experience in the type of business .....

3. What is the highest level of training that you have undergone?

University level	<input type="checkbox"/>	secondary school level	<input type="checkbox"/>
College level	<input type="checkbox"/>	primary school level	<input type="checkbox"/>
None	<input type="checkbox"/>		

**SECTION TWO: SPECIFIC INFORMATION**

1. What is your firm’s most preferred source of funding for investment activities?

Bank	<input type="checkbox"/>	personal savings	<input type="checkbox"/>
Retained earnings	<input type="checkbox"/>	Sacco loans	<input type="checkbox"/>

What other sources do you consider for funding investment activities?

(Specify) .....

2. What is the **average amount of investment expenditure** that your firm has incurs per annum? Kshs.....

3. What is the average change in your firm’s overall financial position in the last 3 years?

Increase in overall performance

Decrease in overall performance

No change in overall financial performance.

From your answer above what can you attribute this to?.....

4. What is the main form of investment decision that your firm usually takes

**Tick**

- |   |                          |
|---|--------------------------|
| i) New property acquisition                               | <input type="checkbox"/> |
| ii) New plant and equipment acquisition                   | <input type="checkbox"/> |
| iii) Old asset replacement (production capacity retained) | <input type="checkbox"/> |
| iv) Existing equipment upgrading                          | <input type="checkbox"/> |
| v) Business portfolio diversification                     | <input type="checkbox"/> |

5. Investment decisions in a firm are influenced by various factors. Please rate the below factors in regard to the level that they do influence the undertaking of investment decisions in the case of your firm. Use the key provided below.

**KEY**

1. No extent
2. Mild extent
3. Fairly high extent
4. High extent
5. Extremely high extent

Factor	Rank				
	1	2	3	4	5
i) Need to meet the firm's target output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Need to improve internal efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Need to diversity portfolio investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Information availability regarding the investment opportunity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Funds availability for the firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Others specify factors (specify).....

6. Various measures are used to measure financial performance in a firm, rate the degree of consideration on the following measures while you are measuring the financial performance of your firm.

**KEY**

- i) Not considered
- ii) Less considered
- iii) Fairly Considered
- iv) Considered
- v) Strongly considered



Factor	Rank				
	(i)	(ii)	(iii)	(iv)	(v)
1. Firm's Liquidity measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Firm's Sales turnover measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Firm's Long term solvency measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Shareholder investment return measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. What is the **average** amount of **gross sales earnings** that your firm does earn per annum? Kshs.....

8. What is the **average** amount of **overall profitability** does your firm earn in the last **3 years**?

- Less than Ksh. 50,000
- Ksh 50,000 to ksh. 200,000
- Ksh. 200,000 to ksh. 500,000
- Ksh. 500,000 to ksh. 700,000
- Ksh. 700,000 to Kshs 1,000,000
- More than 1million

**9. Do you consider the below investment decisions that your firm takes to have an effect on the resulting financial position of your firm.**

**KEY**

1. No extent
2. mild extent
3. fairly high extent
4. high extent
5. great extent

**Section A)** Effect of investment decisions that the firm takes on **the liquidity performance** (e.g. the ease of available cash reserves within the business daily operations)

Investment decision	Rank				
	1	2	3	4	5
i) Property acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) New kind of plant and equipment acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Old asset replacement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Existing equipment upgrading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Business portfolio diversification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Others specify.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Section B) Effects of the investment decisions that the firm takes on the long term solvency status.** (e.g. the ease to repay loans and other debts that the business incurs)

Investment decision	Rank				
	1	2	3	4	5
i) Property acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) New plant and equipment acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Existing equipment upgrading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Old assets replacement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Business portfolio diversification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Section C) Effect of the investment decisions that the firm takes on the sales turnover and profitability.** (E.g. sales and revenue levels changes)

Investment Decision	Rank				
	1	2	3	4	5
i) Property acquisitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) New plant and equipment acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Existing equipment up-grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Old asset replacement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Business portfolio diversification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi) Others specify .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Section D) Effects of investment decisions on shareholders' investment measures.**

(E.g. the return on investment, return on assets)

	Investment decision	Rank				
		1	2	3	4	5
i)	Property acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii)	New plant and equipment acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii)	Existing equipment up grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv)	Old asset replacement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v)	Business portfolio diversification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi)	Others specify .....					

10. Give any reasons for a favourable adoption to the type of measure for financial performance usually applied in your firm.

.....

.....

.....

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE**

### Appendix III: Summarized Information on All Respondents Responses

Investment decisions	Effect of Investment decision on liquidity performance  (Scores rated on a likert scale of 1-5)						Effect of Investment decisions on gross sales income  (Scores rated on a likert scale of 1-5)						Investment expenditure per annum in Kenya shillings	Gross sales revenue per annum in Kenya shillings	
	Prop Aq	Ppe Aq	OLD REP	Exp Up	B.PD	ot	Prop Aq	Ppe Aq	OLD REP	Exp Up	B.PD	ot			
Respondents															
1	2	4	3	5	2	0	4	4	2	4	3	0	50000	400000	
2	2	4	4	4	4	0	4	5	4	5	2	0	80000	150000	
3	3	4	2	3	1	0	3	5	4	5	2	0	0	50000	
4	4	5	2	5	4	0	4	5	3	2	3	1	60000	400000	
5	3	4	3	5	4	0	2	5	3	5	4	0	0	35000	
6	5	5	2	5	4	0	2	4	3	3	3	0	12000	80000	
7	4	5	3	4	3	0	2	4	5	5	3	0	15000	80000	
8	3	5	1	5	3	0	1	5	4	5	3	0	20000	10000	
9	3	5	1	4	2	0	2	5	4	5	2	0	20000	120000	
10	5	5	1	5	2	0	1	5	4	5	2	0	40000	150000	
11	3	5	1	5	3	0	3	4	4	5	2	0	50000	200000	
12	5	5	1	5	4	0	4	5	3	4	2	0	150000	25000	
13	4	5	3	5	2	0	3	4	5	5	3	0	40000	150000	
14	5	4	1	4	5	0	3	4	3	4	3	0	90000	30000	
15	3	5	2	5	3	0	2	5	2	5	2	0	80000	90000	
16	5	5	1	5	4	0	1	5	4	5	4	0	0	40000	
17	4	5	3	5	3	0	4	5	3	5	2	0	100000	80000	
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19	2	5	5	4	4	0	2	5	5	5	4	0	60000	750000	
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21	5	5	2	5	4	0	2	4	3	5	3	0	30000	350000	
22	2	3	4	4	5	0	2	5	3	5	2	0	80000	800000	
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25	4	2	4	5	5	0	2	5	3	5	3	0	12000	70000	
26	5	5	3	3	3	0	3	5	2	5	2	0	15000	80000	
27	3	5	2	5	2	0	2	5	2	5	2	0	20000	10000	
28	5	5	1	5	5	0	3	5	3	5	1	0	30000	200000	
29	5	5	5	5	5	0	3	4	4	5	3	0	40000	150000	
30	5	4	3	4	4	0	3	5	3	2	2	0	50000	190000	

31	4	4	4	5	4	0	3	5	3	5	3	0		80000	150000
32	3	5	4	5	2	0	2	5	3	4	2	0		25000	90000
33	5	5	3	5	3	0	3	5	2	4	1	0		40000	200000
34	3	5	5	5	4	0	2	5	1	5	2	0		30000	350000
35	3	5	4	4	5	0	2	5	2	5	3	0		30000	400000
36	5	5	4	2	3	0	2	5	2	5	4	0		80000	500000
37	4	4	5	5	5	0	1	5	1	5	1	0		70000	600000
38	5	5	3	5	5	0	2	5	3	5	3	0		60000	750000
39	3	5	3	3	5	0	3	5	2	4	2	0		40000	550000
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41	3	4	2	4	4	0	4	5	2	5	3	0		80000	800000
42	4	5	2	4	1	0	3	5	3	2	2	1		60000	400000
43	3	4	3	5	4	0	4	5	3	5	3	0		150000	600000
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45	3	5	3	5	4	0	2	4	5	5	3	0		80000	170000
46	3	5	1	5	3	0	2	5	4	5	2	0		150000	275000
47	3	5	1	5	3	0	1	5	4	5	2	0		100000	170000
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54	5	5	2	5	3	0	2	5	4	5	2	0		200000	80000
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56	4	3	4	5	3	0	4	5	3	3	4	0		400000	60000
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60	2	3	4	4	4	0	2	5	3	5	1	0		550000	60000
61	4	5	3	4	5	0	2	5	4	5	3	1		350000	40000
62	4	5	4	5	2	0	3	4	3	5	3	0		800000	12000
63	4	2	4	4	3	0	4	5	3	5	2	0		400000	15000
64	5	5	3	5	5	0	2	5	2	5	2	0		300000	20000
65	3	5	2	5	3	0	3	5	2	5	3	0		70000	30000
66	5	5	1	5	2	0	2	5	3	5	3	0		80000	40000
67	5	5	5	3	5	0	3	4	4	5	2	0		0	150000
68	5	4	3	5	5	0	3	5	3	2	3	0		1000000	5000000
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70	3	5	4	5	4	0	3	5	3	4	1	0		50000	80000
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76	5	5	3	4	5	0	1	5	1	5	2	0		15000	500000
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79	3	4	2	5	2	0	4	5	4	5	4	0		30000	350000
80	4	5	2	3	4	0	4	5	3	2	3	1		80000	400000
81	3	4	3	5	1	0	3	5	3	5	3	0		500000	190000
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83	3	5	3	5	4	0	2	4	5	5	2	0		400000	500000
84	3	5	1	5	4	0	2	5	4	5	2	0		750000	550000
85	3	5	1	5	3	0	2	5	4	5	2	0		800000	90000
86	5	5	1	5	3	0	1	5	4	5	2	0			
87	3	5	1	5	2	0	2	4	4	5	3	0			
88	5	5	1	5	2	0	1	5	3	4	3	0		60000	150000
89	4	4	3	4	3	0	3	4	5	5	2	0		350000	600000
90	5	4	2	5	4	0	4	4	3	4	4	0		400000	240000
91	3	5	2	4	2	0	3	5	2	5	2	0		80000	500000
92	5	5	2	5	5	0	3	5	4	5	3	0		600000	60000
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94	4	3	4	5	4	0	1	5	3	3	2	0		350000	80000
95	2	5	5	5	3	0	4	5	5	5	3	0		60000	400000
96	3	5	1	4	5	0	4	5	4	5	2	0		600000	1500000
97	5	5	2	5	4	0	2	4	3	5	1	0		80000	170000
98	2	3	4	5	5	0	2	5	3	5	1	0		275000	100000
99	4	5	3	5	4	0	2	5	4	5	3	1		120000	600000
100	4	5	4	5	5	0	2	4	3	5	2	0		500000	200000
101	4	2	4	4	2	0	3	5	3	5	2	0		300000	1200000
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107	4	4	4	5	5	0	3	5	3	5	1	0		15000	80000
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109	5	5	3	5	4	0	3	5	2	4	3	0		20000	120000
110	3	5	5	5	2	0	2	5	1	5	1	0		40000	150000
111	3	5	4	5	3	0	3	5	2	5	1	0		50000	200000
112	5	5	4	4	4	0	2	5	2	5	3	0		150000	25000

113	4	4	5	5	5	0	2	5	1	5	2	0		40000	150000
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115	3	5	3	5	5	0	1	4	2	4	3	0		80000	90000
116	2	5	2	5	5	0	2	5	4	5	1	0		300000	1200000
117	3	4	2	4	5	0	3	5	4	5	3	0		700000	20000
118	4	5	2	2	2	0	2	5	3	2	3	1		200000	80000
119	3	4	3	3	4	0	4	5	3	5	3	0		100000	400000
120	5	5	2	5	1	0	3	4	3	3	2	0		400000	40000
121	3	5	3	3	4	0	4	4	5	5	2	0		30000	750000
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123	3	5	1	4	4	0	2	5	4	5	2	0		40000	800000
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125	3	5	1	5	3	0	1	4	4	5	3	0		2000	96000
126	5	5	1	5	2	0	2	5	3	4	2	0		10500	200000
127	4	4	3	5	2	0	1	4	5	5	4	0		500000	40000
128	5	4	2	5	3	0	3	4	3	4	2	0		600000	30000
129	3	5	2	5	4	0	4	5	2	5	5	0		750000	80000
130	5	5	2	4	2	0	3	5	4	5	4	0		550000	60000
131	4	5	3	5	5	0	3	5	3	5	4	0		350000	150000
132	4	3	4	4	3	0	2	5	3	3	3	0		800000	100000
133	2	5	5	5	4	0	1	5	5	5	2	0		400000	80000
134	3	5	1	5	3	0	2	5	4	5	1	0		600000	150000
135	5	5	2	5	5	0	4	4	3	5	3	0		500000	800000
136	2	3	4	5	4	0	2	5	3	5	3	0		1200000	700000
137	4	5	3	4	5	0	2	5	1	5	2	1		150000	150000
138	4	5	4	5	4	0	2	4	3	5	2	0		80000	450000
139	4	2	4	5	4	0	2	5	3	5	3	0		100000	800000
140	2	5	3	2	2	0	1	5	2	5	3	0		40000	200000
141	3	2	2	5	3	0	3	5	2	5	2	0		30000	250000
142	3	5	1	4	3	0	2	5	3	5	3	0		50000	400000
143	5	3	4	4	3	0	3	5	2	5	2	0		80000	400000
144	2	5	3	5	2	0	2	5	3	2	1	0		60000	500000
145	4	4	4	4	5	0	1	5	2	5	3	0		190000	150000
146	3	3	2	5	5	0	3	5	3	4	3	0		90000	200000
147	5	5	3	4	4	0	3	5	2	4	4	0		350000	400000
148	3	5	3	5	4	0	3	5	1	3	1	0		500000	600000
149	3	3	4	5	2	0	2	5	2	3	4	0		750000	550000
150	5	5	4	3	3	0	3	5	2	5	4	0		350000	800000
151	4	4	5	5	2	0	1	5	1	4	1	0		400000	600000
152	5	5	3	5	3	0	3	5	1	5	2	0		4500000	170000
153	4	1	3	5	2	0	3	5	2	2	2	0		275000	170000



154	3	3	2	4	2	0	2	5	1	3	3	0	60000	50000
155	2	2	1	3	3	0	2	5	3	2	1	0	80000	120000
156	4	3	3	2	1	0	3	3	2	1	2	0	70000	150000
Total Score	585	702	429	702	546	0	390	741	468	702	390	8		

Investment decisions	Effect of Investment decision on liquidity performance (Scores rate on a likert scale of 1-5)					ot	Effect of Investment decisions on gross sales income (Scores rate on a likert scale of 1-5)					ot
	Prop Aq	P.E Aq	OLD REP	Exp Up	B.pd		Prop Aq	Ppe Aq	OLD REP	Exp Up	B.pd	
Respondents						solvency						
1	1	3	1	1	2		2	2	4	1	2	0
2	2	2	2	4	5	0	2	5	2	3	3	0
3	3	4	2	4	5	0	4	3	3	2	2	0
4	4	3	2	1	2	0	3	2	3	4	3	0
5	3	4	3	3	4	0	5	4	4	5	2	0
6	5	1	2	2	1	0	3	5	2	3	2	0
7	5	5	3	3	4	0	3	5	5	4	3	0
8	3	2	1	3	4	0	2	3	3	4	5	0
9	5	5	1	4	4	0	4	2	3	4	5	0
10	5	2	1	4	3	0	5	4	2	4	2	0
11	3	3	1	2	3	0	4	3	1	5	4	1
12	5	5	1	1	2	0	3	4	2	5	1	0
13	4	4	3	3	2	0	2	3	2	5	4	0
14	5	4	2	3	3	0	4	4	5	4	4	0
15	3	5	2	2	4	0	2	3	2	4	4	0
16	5	5	2	4	2	0	1	5	2	4	3	0
17	4	5	3	3	5	0	2	5	3	5	3	0
18	4	3	4	4	3	0	3	5	2	5	2	0
19	2	3	5	1	4	0	4	5	3	3	2	0
20	3	5	5	2	3	0	3	3	1	5	1	0
21	5	3	5	1	5	0	2	5	5	5	4	0
22	2	3	4	2	4	0	3	4	1	4	3	0
23	4	2	3	1	5	0	3	4	2	3	5	0
24	4	5	4	1	4	0	3	5	2	4	3	0
25	4	2	4	1	4	0	1	5	3	5	4	0
26	2	3	3	2	2	0	3	5	2	4	3	1
27	3	2	2	1	3	0	5	3	3	5	5	0

28	3	3	5	4	3	0	1	3	2	2	4	0
29	5	3	4	2	3	0	5	5	3	4	3	0
30	2	3	3	1	5	0	4	5	4	5	4	0
31	4	4	4	4	5	0	3	5	5	4	4	0
32	3	3	2	5	5	0	4	2	3	2	2	0
33	5	3	3	4	4	0	4	5	1	3	3	0
34	4	3	3	2	4	0	2	5	4	4	4	0
35	3	3	4	2	2	0	4	3	5	2	3	0
36	5	2	4	3	3	0	3	5	4	3	4	0
37	4	4	5	2	2	0	3	3	4	4	2	0
38	5	5	3	1	3	0	3	3	3	4	3	0
39	4	1	3	1	2	0	3	5	2	4	3	0
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41	2	2	1	3	3	0	4	4	4	5	2	0
42	3	4	5	4	5	0	2	5	2	5	1	0
43	2	2	5	4	5	0	4	5	2	5	3	0
44	1	4	2	1	2	0	3	3	3	3	2	1
45	2	3	2	3	4	0	2	2	3	4	3	0
46	3	4	2	2	1	0	4	4	4	4	2	0
47	4	1	3	3	4	0	2	5	2	5	2	0
48	3	5	2	3	4	0	2	5	5	4	3	0
49	5	2	3	4	4	0	2	5	3	3	5	0
50	3	5	1	4	3	0	3	2	3	4	5	0
51	3	2	1	2	3	0	4	4	2	5	2	0
52	3	3	1	1	2	0	3	2	1	4	4	0
53	5	5	5	3	2	0	4	5	2	3	1	0
54	3	4	1	3	3	0	3	3	2	4	4	0
55	5	4	3	2	4	0	3	4	5	3	4	0
56	4	5	5	4	2	0	3	5	2	3	4	0
57	5	5	2	3	5	0	5	5	2	4	3	0
58	3	5	2	4	3	0	3	5	3	4	3	0
59	5	3	3	1	4	0	2	5	2	5	2	0
60	4	3	4	2	3	0	4	5	3	5	2	0
61	4	5	5	1	5	0	2	3	1	4	1	0
62	2	3	5	2	4	0	4	5	5	3	4	0
63	3	3	5	1	5	0	3	4	1	5	3	0
64	5	2	4	1	4	0	4	4	2	4	5	0
65	2	5	3	1	4	0	4	5	2	3	3	0
66	4	2	4	2	2	0	2	5	3	4	4	0
67	4	3	4	1	3	0	4	5	2	5	3	0
68	4	2	3	4	3	0	3	3	3	2	5	0

69	2	3	2	2	3	0	2	3	2	5	4	0
70	5	3	5	1	5	0	3	5	3	5	3	0
71	5	3	4	4	5	0	3	5	4	4	4	0
72	5	4	3	5	5	0	2	5	5	5	4	0
73	4	3	4	4	4	0	4	5	3	4	2	0
74	5	3	2	2	4	0	2	5	1	2	3	0
75	3	3	3	2	2	0	4	5	4	3	4	0
76	5	3	3	3	3	0	3	3	5	4	3	0
77	4	5	4	2	2	0	2	5	4	2	4	0
78	3	4	4	1	3	0	4	3	4	5	2	0
79	5	5	5	1	2	0	2	3	3	4	3	0
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81	5	3	3	3	3	0	2	4	3	4	2	0
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83	3	4	1	4	5	0	4	5	2	5	1	0
84	2	2	5	1	2	0	3	5	2	5	3	0
85	5	4	5	3	4	0	1	5	3	5	2	0
86	5	3	2	2	1	0	3	2	3	3	3	0
87	5	4	2	3	4	0	3	4	4	2	2	0
88	4	1	2	3	4	0	3	5	2	4	2	0
89	5	5	3	4	4	0	2	5	5	5	3	0
90	5	2	5	4	3	0	3	3	3	3	5	0
91	5	5	3	2	3	0	2	2	3	3	5	0
92	5	2	1	1	2	0	4	4	2	4	2	0
93	3	3	5	3	2	0	1	5	1	4	4	0
94	5	5	5	3	3	2	4	4	2	4	1	0
95	3	4	1	2	4	0	3	5	2	3	4	0
96	5	4	1	4	2	0	4	4	5	2	4	0
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98	5	5	2	4	3	0	2	5	2	3	3	0
99	5	5	2	1	4	0	4	5	3	4	3	0
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102	5	5	4	2	4	0	3	3	1	5	1	0
103	4	3	5	1	5	0	3	5	5	3	4	0
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105	2	2	5	1	4	0	4	4	2	5	5	0
106	5	5	4	2	2	0	2	5	2	4	3	0
107	5	2	3	1	3	0	2	5	3	3	4	0
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109	5	2	4	2	3	0	2	3	3	5	5	0

110	5	3	3	1	5	0	4	3	2	2	4	0
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112	5	5	5	5	5	0	2	5	4	5	4	0
113	5	4	4	4	4	0	2	5	5	4	4	0
114	3	5	3	2	4	0	3	5	3	5	2	0
115	5	3	4	2	2	0	4	5	4	4	3	0
116	2	5	5	3	3	0	3	5	4	5	4	0
117	4	3	3	2	2	0	2	3	5	3	3	0
118	3	2	3	1	3	0	3	5	4	4	4	0
119	5	4	4	1	2	0	3	5	4	5	5	0
120	3	5	5	1	2	0	3	3	5	3	3	0
121	3	1	5	3	3	0	2	5	2	4	3	0
122	5	3	3	4	5	0	3	4	5	4	2	0
123	4	2	3	4	5	1	5	4	4	4	2	0
124	5	4	2	1	2	0	1	5	3	5	1	0
125	4	2	1	3	4	0	1	5	2	5	3	0
126	3	4	5	2	1	0	4	5	3	5	2	0
127	2	3	5	3	4	0	3	2	3	5	3	0
128	4	4	5	3	4	0	4	4	4	3	2	0
129	2	3	2	4	4	0	2	5	2	5	5	0
130	5	5	5	4	5	0	2	5	5	4	3	0
131	2	2	3	2	3	0	4	4	3	5	5	0
132	3	5	2	1	5	0	3	5	3	3	5	0
133	4	5	3	3	5	0	2	4	2	5	5	0
134	3	3	1	3	3	0	3	2	1	4	4	0
135	5	5	5	2	4	0	3	4	5	5	3	0
136	3	4	1	4	5	0	4	3	4	4	4	0
137	3	4	5	3	5	0	4	4	5	3	4	0
138	3	5	5	4	3	0	2	3	5	2	4	0
139	5	5	3	1	4	0	4	5	2	5	3	0
140	3	5	2	2	3	0	3	5	3	5	3	0
141	5	3	5	1	5	1	2	5	2	4	2	0
142	4	3	2	2	4	0	4	5	3	4	2	0
143	5	5	3	4	5	0	2	4	4	5	5	0
144	3	5	4	1	4	0	3	5	5	5	4	0
145	5	3	5	4	4	0	2	4	1	3	3	0
146	4	2	5	2	2	0	3	4	2	3	5	0
147	4	5	5	3	3	0	4	5	2	5	3	0
148	2	5	4	4	5	0	3	5	3	4	4	0
149	5	3	5	2	3	0	2	5	2	3	5	0
150	5	2	4	3	5	0	3	4	3	4	5	0

151	4	3	4	4	5	0	3	3	4	5	4	0
152	5	3	3	3	5	0	5	5	3	2	3	0
153	4	3	2	4	4	0	2	5	4	4	4	2
154	4	4	5	2	4	0	3	5	5	5	4	0
155	5	3	4	1	2	0	4	5	5	4	4	0
156	4	5	2	2	3	0	5	5	5	5	4	0
Total Score	600	546	507	390	546	5	468	663	468	624	507	6

**Key to Appendix III.**

<u>Abbreviation</u>	<u>Meaning</u>
Prop. Aq -	Property Acquisition
P.E Aq-	Plant and Equipment acquisition
Old Rep-	Old asset replacement with production capacity retained.
B.p.d-	Business Portfolio diversification
Exp.Up-	Existing equipment Upgrading
O.T.H-	Other forms of investment expenditures