THE EFFECT OF ACCOUNTING INFORMATION SYSTEM QUALITY ON FINANCIAL PERFORMANCE OF SMES IN NAIROBI COUNTY

By

ALPHONCE OSIRE ODERO

A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE AWARD OF THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION OF THE UNIVERSITY OF NAIROBI SCHOOL OF BUSINESS.

OCTOBER 2014

DECLARATION

This research project is my original work and has not been submitted for the award of any degree in this or any other University.

Signature……………………………….. Date………………………………………

Alphonce Osire Odero

Reg No: D61/63542/2010

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

Signature………………………………… Date…………………………………….…

Dr. Josiah O. Aduda

Department of Finance and Accounting

University of Nairobi

DEDICATION

This research project is dedicated to my family, my wife Carolyne and my daughter and son Brooklynne and Dylan for their constant support and encouragement throughout my studies. I cannot forget my parents Mr Joseph Odero and Saline Odero for their wisdom and inspiration which has been my pillar in search for knowledge.

ACKNOWLEDGEMENT

ABSTRACT

Accounting information system is a system that records and processes data of transaction and events into meaningful information for use in planning, controlling and operation of businesses. The quality of the accounting information that a firms has would influence the nature of reporting and thus performance. The study therefore sought to investigate the relationship between this quality and financial performance of SMES in Nairobi County. Primary data was collected from a sample of 50 business enterprises in diverse sectors in the county. A self-administered questionnaire was used through a drop and pick module. Information was sought majorly from top manager, owners and accountants to enhance reliability. The questions asked covered the key aspects of quality and performance that included the records and report management, the extent of knowledge and usage of the AIS, the nature of the AIS in place and the extent of regulation in place. Correlation analysis done indicated that all the independent were significantly correlated with the dependent variable as all the coefficient of correlation were more than 0.5. Binary logistic regression model was fitted on the variables. The major finding of the study was that most enterprises had a high linkage of financial performance as measured by the change in ROI being heavily influenced by the nature of records and reports, nature of the accounting system adopted the extent of knowledge and usage of accounting information and the extent of regulation in place. The key recommendations of the study therefore included development and adoption of user friendly computerized accounting information systems for all the enterprises in the county for daily operations and reporting. This will go far way in saving on time and improving on operational efficiency as well increasing reliability of the financial reports generated for consumption by other users including banks, tax authorities etc through reduction biases caused by human interaction. There is need to develop affordable, easy and user friendly training kits to be consumed by majorly players in the sme bracket on accounting and financial management. This will majorly be useful in improving skills so as to boost proper decision making based on factual realities by management and owners of these enterprises.

TABLE OF CONTENT

LIST OF TABLES

LIST OF ABBREVIATIONS

AIS: Accounting Information Systems

CAS: Computerized Accounting Information System

FRSSE: Financial Reporting Standard for Smaller Entities

GDP: Gross Domestic Product

IASB: International Accounting Standard Board

ICAEW: Institute of Chartered Accountant in England and Wales

ICAZ: Institute of Chartered Accountants of Zimbabwe

ICPAK: Institute of Certified Public Accountants of Kenya

IFRS: International financial reporting standard

IT: Information technology

KIRDI: Kenya Industrial Research Development Institute

KRA: Kenya Revenue Authority

ROA: Return on Assets

ROI: Return on investment

SME-FRF: Small and Medium-sized entity financial reporting framework

SME-FRS: Small and Medium – Sized entity Financial reporting standard

SMEs: Small and Medium Sized Enterprises

SPSS: Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Accounting plays a very important role in the management and success or failure of contemporary business institutions. Accounting information systems (AIS) are responsible for recording, analyzing, monitoring and evaluating the financial condition of companies, processing of documents necessary for tax purposes and providing information support to many other organizational functions, (Amidu et al., 2011). In the context of SMEs, accounting information is important because it helps the firm's manager make decisions in critical areas such as costing, expenditure and cash flows by proving information to support monitoring and control (Mitchell et al.; Son et al., 2006). Most SMEs are owned and managed by a family unit, however; the workforce is drawn from non – family members. Therefore, SMEs operates under a different environment and is influenced by the management style and the culture that the family inherited from generation to generations (Peter and Buhalis, 2004).

Small Business enterprises (SMEs) play an important role in the economic development of Kenya by providing employment and production of goods and services. However, the extent of contribution that these business units make to towards the economic growth and development of Kenya is dependent on the level of success attained through their operations. The fact is that, the major factors that influence the success of a business enterprise is the establishment and application of controls by the owners and management

in addition to the systematic record keeping of business transactions, which keeps the owner well- informed about the performance of the business (Mbroh et al., 2011).

Traditionally, Small businesses view on record keeping is normally paper based records maintained and then handed over to the accounting firm to prepare the annual tax return. Porter & Miller (1985) mentioned that, in competitive advantage, over the years, information technology had played a major role in changing the nature of business. And with the introduction of new technology and more user friendly software, computerized Accounting system (CAS) appears to reduce the problems in book keeping practice. Furthermore, with the new financial rapid information, new updates and changes will be available for others in making decisions. Globalization and open Market phenomena have equally augmented many businesses' operations. Efficient and effective business process and activities are strongly demanded. Local businesses are not only competing with each other but with multinational companies, which are supported with abundant resources to produce high quality products with reasonable pricing. This has increased the pressure on local SMEs, in particular their management to increase business efficiency by making better judgment on business decisions. Real time data and reports would certainly be considerable assistance in aiding managers to make more informed decisions (Ismail, Abdullah & Tayib, 2003).

1.1.1 Accounting Information Systems in SMEs

According to Romney and Steinbart (2000) definition, an accounting information system is a system that processes data and transactions to provide users with information they need to plan, control and operate their business. In this definition, accounting information

systems are considered as tools that help management in planning and controlling processes by providing the relevant and reliable information for decision making. From this perspective, accounting information system functions are not solely for purpose of producing financial reports rather the role goes beyond this traditional view and can also be used as a controlling mechanism such budgeting. Full adoptions of the system will essentially require attainment of all the benefits of the system.

Evidence from a number of studies reveals that SMEs financial accounting has remained the principle source of information for their managers. These studies have also found that most SMEs have ineffective information management, poor system control and therefore most decision making is ad hoc despite having fully adopted an accounting information system (Homes & Nicholas, 1988, Mc Mahon & Davies, 1994, Nayak & Greenfield, 1994, Mairead, 1977). The problem of poor adoption of accounting systems can be attributed to the initial objective of adoption of information technology (IT) that was essentially to replace manual accounting process that has now hindered further usage and exploration on the system benefits (Mauldin & Ruchala, 1999). Marriot and Marriot (2000) argue that financial awareness amongst SMEs' varies considerably and the use of computers for the preparation of management information is not fully utilized to its potential.

1.1.2 Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generates revenues. It can also be used as a general measure of a firms overall financial health over a given period of time as well as for

comparative purposes across sectors or industries. There are many ways through which financial performance can be measured, either taken singly or in aggregation. Line items such as revenue operations, operating income or cash flows from operations can be used. One might also dig deeper into the financial statements to seek out for growth rates in revenues, profits or declining debts. Small and medium sized enterprises (SMEs) play a critical role in our economy through generation of employment, contribution to growth of the Gross Domestic production (GDP), innovations and stimulation of other economic activities (Gamage, 2000). Therefore it is important for developing countries to accelerate the growth of SMEs in order to gain sustainable development. In the context of SMEs, accounting information is important to help firms' manage their short – term problems in critical areas such as costing, expenditure and cash flow by providing information to support planning, monitoring and decision making (Mitchelle et al, 2000, Son et al, 2006). Thus, financial reporting system is necessary to ensure that the SMEs' economic resources are used effectively and efficiently in pursuit of its goals. In addition, there is need in SMEs for skills in financial analysis which will allow financial statements to be read and understood, whether they contain historical or forecast information (McMahon, 1995).

A number of studies suggest that large and small firms pursue different strategies. That while large firms model assume maximization of wealth as the main objective of shareholders, SMEs places value on autonomy, survival, stability or financial growth. Scase and Goffee, (1980); Hussey and Hussey, (1994) and Carsberg, et al. (1985) found that an external auditor required by SMEs usually prepares the statutory accounts and provides management advice. Nayak and Greenfield (1994) found that micro – business

owners are not keeping sufficient records to aid them in their decision making. Pugh et al. (1969) and Chapman (1997) suggest that the level of sophistication of accounting systems is correlated with the size, the age of the firm and level of uncertainty as there is no effective capital market for SMEs. Banks are the general source of finance for SMEs (Chittenden, et al., 1980; Javis et al., 1996). This implies that SMEs monitor their cash position closely in order to maintain good relationship with banks as their lenders.

Drury and Tayles (1995) found that the same rules and procedures established for external reporting (financial accounting) are likely to be applied to internal reporting. For performance measurement and evaluation, most companies base their measurement on different functions and product groups, to somewhat lesser extent on client groups and sales region (Haldma and Laats, 2000). Net profit, rather than controllable profit, is widely used to evaluate the performance of divisional managers (Drury and Tayles, 1995),since it could be apparently measured in monetary value and, sometimes, it is not possible to allocate and designate which cost are controllable or uncontrollable for particular managers. In summary, Accounting Systems play a critical role in the success of a business firm, as they provide information necessary in supporting the firm to achieve the expected goals. It has been emphasized that AIS produces useful information which serve as a basis for the management strategic decision making and in exercise control of firm's activities in order to achieve their goals (Naranjo, 2004).

1.1.3 Accounting Information System and Performance of SMEs

In theory the general expectation is that, with increased investment in information technology, there are considerable benefits that will accrue to an entity as a whole in the

long run. This is mainly possible because of increased processing power, timely generation of reports and general reduction of associated operating costs. The need to reduce direct human interface in record management as well as reporting enhances credibility of reports generated to aid decision making and hence reliability by the end users due to minimization of biases.

Existing literature offers scanty evidence on the relationship between AIS and performance measures (Amyx C., 2005). However, there are studies which have postulated positive relationship between the AIS alignment and SME strategy and performance measures. In Kenya in particular it has been noted that investment in AIS has expanded the scope of action for SMEs thus enhancing time saving in dealing with banks, general administration and hence reduction in running costs.*(National Baseline Survey,*2009).

Companies have shown to achieve a high performance when they can afford the implementation of certain technological developments (*Damanpour and Gopalakvishnan*, 2001), however there are other firms that have shown that performance drops immediately after the implementation by taking several years to realize the full benefits of IT adoption (*Wah*, 2000).Wah, further noted that many firms have invested in IT but do not succeed in attaining the established performance goals. Most research works have been concentrated on large firms however, the analysis on the impact on the smaller firms would be particularly important because it creates a competitive hedge for the firm and even enhances market positioning in achieving better results.

1.1.4 SMES in Nairobi County

SMEs accounts for majority of firms in developing countries like Kenya. They in fact contribute immensely to employment and the overall GDP of the nation .SME are generally regarded as the drivers of economic growth, job creation and poverty reduction in developing countries. They have been the means through which rapid economic growth and industrialization have been achieved (*Harris and Gibson*, 2006).

There is no generally acceptable definition of an SME because classifying a business as "large scale" is a subjective and a qualitative judgment (Gray, Cooley and Lutabingwa (1997).There those who define SMES in terms of annual turnover or number of employees.in Kenya for instance An SME is defined as those entities that employ below 100 employees.*(National Baseline Survey*,2009),However according to ICPAK, an SME is defined as that entity that does not have a public accountability, publishes general purpose financial statements for external users i.e. KRA,CRB e.t.c,whose debt and equity instruments are not floated in a public market and does not hold funds in a fiduciary capacity for a broad group of outsiders as one of its primary business i.e. banks, insurance firms etc. SMES do have the option therefore of using applying the IFRS for SMES of the use of full IFRS.

Nairobi being the economic hub of the country puts the County as the one with the largest number of registered SMES in the country spanning across various sectors of the economy. The county offers a wide range of licenses for businesses depending on the floor space per square foot and the number of employees. There have been recent

attempts by the government of Kenya to spur growth through creation of employment for the youth which constitutes about 65% of the population. This has been done through creation of the Youth, Uwezo and the Women Funds as well as allocation of 30% of government tenders to the youth. This has seen the number of registered SMES in various sectors increase tremendously in the county as the youth increasingly set up enterprises to take advantage of these opportunities.

1.2. Research Problem

In all forms of business units, accounting information systems are of crucial importance. In fact, they are the basis to any business success. Maintenance of sound accounting records is a major factor that contributes proper decision making process since it's the root through which relevant informational requirements is derived. Most smes are owner managed and hence most of them may not have the relevant skills in accounting and financial management thus the appetite to have strong accounting information systems may be lacking. Indeed, prior research has asserted that the quality of accounting information utilized within the SME sector has a positive relationship with an entity's performance (Lybaert, 1998). Similarly, it has been emphasized that there is the need for financial information for small and medium enterprises due to the volatility normally associated with their situation such as unstable cash and profit positions, and reliance on short-term debt (McMahon and Holmes, 1991; and Dodge, Fullerton and Robbins, 1994). However, despite increasing research in accounting in the past decade little is known of its form and effectiveness within the small and medium enterprises sector (McChlery, Godfrey and Meechan, 2005). Similar observations are also made by Mitchell, Reid and

Smith (1999) and Marriott and Marriot (2002) indicating that, in the United Kingdom only recently had research been directed towards the accounting information systems that operate within SMEs.

In Kenya, limited research has been carried out in the area of accounting information systems in use within small firms. Studies carried by Nzomo (2011) analyzed the impact of accounting information system in automobile industry and found that most organization develop systems to support decision making, communication and knowledge. Otieno and Oima (2013) carried out a study on effect of computerized accounting systems on audit risk and found that there exist a significant relationship between computerized accounting systems and audit risk in public enterprises. So far there are no studies carried out on the small and medium enterprises across the spectrum of sectors in Kenya.

It is in this regard therefore that this study will broadly attempt to address the gaps left in the previous studies elsewhere and extend it more specifically to SMEs in Kenya at large.

1.3 Research Objective

The objective of this study is to assess the effect of accounting information system quality on financial performance of Small and Medium Enterprises in Nairobi County.

1.4 Value of the Study

The findings of this research will help hasten the efforts of SMEs in improving the record keeping and financial reporting that will help management in monitoring, planning and decision making and thus ensuring their survival in the business environment. The research will provide immense knowledge in the way SMEs are managed and thus improve on performance for the benefit of owners and stakeholders. In addition, the research study will facilitate better SMEs management by enhancing the knowledge of financial analysis and forecasting that will spur expansion of business and growth of SMEs. The study will equally be useful in formulating policies both in government and SMEs especially in strengthening policy consideration for the sector. The findings of the study may open opportunities for further research in accounting information system in SMEs and other sectors of the economy. Regulation and tax authorities may benefit from the study by formulating policies that are aimed at improving regulation of SMEs and the tax code.

The study will also contribute positively in formulating theories on accounting information system and adoption that will account for the shortcomings in the process. A model on adoption of accounting information system and SMEs strategy will explain how accounting information system may influence the performance. The research will further expound on studies by Otley, Marriot and Marriot on adoption of accounting information system.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

In this chapter, scholarly works of selected authors on accounting information systems locally and internationally are reviewed.

2.1. Theoretical Framework

The theoretical framework of a research project relates to the philosophical basis on which the research takes place, and forms the link between the theoretical aspects and practical components of the investigations undertaken. The theoretical framework, therefore, has an implication for every decision made in the research process (Mertens, 1998). The starting point in developing a research proposal according to Crotty (1998, 3) is to identify the methodologies that will be utilized in the research project and then to justify their choice. Methodologies relate to "the strategy, the plan of action, process and design lying behind the choice and the use of particular methods, and linking the choice and use of methods to the desired outcomes" (Crotty, 1998, 3). The methods applied convey the techniques or procedures used to gather and analyze data related to some research questions" (Crotty 1998, 3). Therefore, it is important "to find a method which is compatible with the kind of kind of problem being investigated (Mackay 1993).

2.2.1 Contingency Theory

According to contingency theory, there are no universally appropriate AIS that can be applied to every situation since the effectiveness and usefulness of AIS are contingent

upon certain external factors such as market and environment and internal factors such as technology and strategy.   Accounting information system must also be in line with the organization strategy. Langfiled & Smith, (1997) extensively analyzed the relationship of strategy and AIS and suggest that AIS are one of the consequences of strategy. Studies by Chenhall (2003), Gerdin & Greve, (2004) assert that AIS play a proactive role in the strategy management, acting as a mechanism that enables organization strategy.

2.2.2 Agency Theory

Agency theory focuses on conflict that can arise between contracting parties, the principal and the agent, due to information asymmetries (Ezzamel and Watson 1993). Agency problems between management and owners may arise when a firm's management does not bear a substantial portion of the wealth effects of their decisions. According Jensen and Meckling (1976) and provost et al. (2000), the separation of ownership from control can result in potential agency conflict stemming from the divergence between managerial and shareholder interest. Agency problems arise whenever managers have incentive to pursue their own interest at the shareholders expense (Agrawal & Knoeber , 1996). Jensen and Meckling (1976) suggest that managers who own a stake in their firm are less likely to deviate from the shareholders wealth maximization by consuming perks, shirking or undertaking sub-optimal projects to maximize their own benefits. In small firms, managerial or insider ownership is common, thus, agency problems are more likely to arise between owner-managers and suppliers of finance or other stakeholders because of information asymmetry. This is based on the assumption that the owner-manager has more or better information than other stakeholders. Relevance of agency theory to accounting research is that it can incorporate

conflict of interest, incentive problems and mechanisms for controlling incentive problems in one model. In addition, motivation for accounting and auditing is primarily a control of incentive problem (Kaplan and Norton, 1993).

2.2.3 Behavioral Theory

Early behavioral theory in accounting research explored bi-variant relations between control system characteristics (for example; reliance on accounting performance measures or budget participation) and various criterion variables (e.g., performance or dysfunctional behavior). Behavioral theory in accounting research evolved rather quickly, however, to more complex contingency models of the organization with a richer view of the organization and of individual behavior. The fundamental premise of contingency theory research has been that organizational structure and control system design is related to organizational context. Thus, the effects of control system characteristics are moderated by contextual factors which impact the individual and the organization, (Kren and Liao, 1988). Specific characteristics of the control system must be matched to the contextual variables that define the organization's environment. The (often implicit) assumption is that a better match is positively related to organizational performance (Kren and Liao 1988; Merchant and Simons 1986; Otley 1980). Understanding control system design and effectiveness, in general, begins with analyses of the characteristics of specific organizations and their environments and this forms the basis of the researcher.

2.3. Determinants of Financial Performance of SMEs

In this section various factors contributing to the financial performance of smes on the key subject under review will be discussed.

2.3.1 Accounting Records and Report Management

Financial records, for example the sales day book (sales journal), purchases day book (purchases journal), cash receipt book, cheques books, petty cash book, general journal, nominal ledger, debtors' ledger and creditors' ledger must be kept and maintained in a sound accounting system (McMahon, 1999). However, not all SMEs may need to keep and maintain all the previous mentioned financial records but an entity has to decide this on the basis of its needs. When the entity makes the judgment of what financial records to maintain, it also needs to take into account whether some financial records are compulsory to be kept by a regulator. On 9 July 2009, the IASB published an international financial reporting standard (IFRS) designed for use by small and medium-sized entities (IFRS for SMEs). This is the first set of international financial reporting requirements developed specifically for SMEs. SMEs are estimated to represent more than 95 per cent of all entities, according to the IFRS foundation (2010). Since the early 1970s, IFRSs have been designed to meet the needs of entities whose securities trade in public capital markets. This has affected the scope of issues covered in IFRSs, the amount of implementation guidance and the volume of disclosures. SMEs generally have fewer resources, limited access to capital markets, less business complexity and fewer external users of its financial statements, compared to larger listed entities.

Users of financial statements of SMEs will be more interested in current liquidity and short-term cash flows than long-term forecasts of cash flows and earnings (Sian and Roberts, 2006). The complexities posed by full IFRSs in financial reporting by SMEs led countries like the UK to develop a standard of its own that was used by SMEs in financial

reporting; the financial reporting standard for smaller entities (FRSSE), with extant local accounting standards applicable to all non-listed entities. In Kenya, IFRS was adopted in full and these have been applicable to all listed and non- listed entities since 1999 (Sian and Roberts, 2006). In Hong Kong the small and medium-sized entity financial reporting framework and financial reporting standard (SME-FRF and SME-FRS) was issued in August 2005 (HKICPA, 2008). The introduction of an IFRS specifically for SMEs was necessitated by many challenges faced by these entities in adopting full IFRSs in financial reporting, the main of which was the excessive disclosure requirements, based on a cost-benefit analysis for SMEs (Nazri, 2010). One major interest of SMEs that adopted full IFRSs was to reduce the cost of preparing financial statements according to the Institute of Chartered Accountant in England and Wales (ICAEW, 2008). Full IFRSs were designed for financial reporting that meets the needs of equity investors in large entities with shares trading on public capital markets. The full IFRSs cover a wide range of issues, including a sizeable amount of disclosures for easy understanding by a wide range of users in these large public companies. Users of the financial statements of SMEs do not usually have similar needs, but, rather are more interested in assessing shorter-term cash flows, liquidity and solvency (McMahon, 1999). Also, many SMEs complained that full IFRSs impose a burden on them - a burden that has been growing as IFRSs have become more detailed and more countries have begun to use them (IFRS foundation, 2010).

Concerns have been raised about the burden to financial statement preparers and the relevancy of the resulting information to lenders, vendors, credit rating agencies, family

investors, development agencies and others who use SME financial statements (ICAZ, 2010). A fundamental change in the way companies, and SMEs in particular, report financial information to their lenders and insurers is also critical to minimize credit risk and business failure (ICAEW, 2008). For small businesses, the cost of complying with IFRSs could be greater than the benefit received. A full set of accounts that comply with IFRSs are less relevant for the small business user who is most likely to be the owner-manager (Stern and Barbour, 2005), quoted in Stainbank (2008). The introduction of an IFRS for SMEs in July 2009 by the IASB was a welcome development in many countries, especially in developing countries (Juping, 2010).

2.3.2 Level of Accounting Information Knowledge and Usage by SMEs.

The Financial Management of the Small Enterprise conducted by Ismail (2009) emphasized the common belief that better financial information means better control and higher chance of success. Accounting information is information provided by accountants and accounting systems. This information is usually presented in financial statements such as the income statement and the balance sheet. It also includes any financial ratios extracted from these financial statements. Accounting systems are responsible for analyzing and monitoring the financial condition of firms, preparation of documents necessary for tax purposes, providing information to support the many other organizational functions such as production, marketing, human resource management, and strategic planning. The primary purpose of an accounting information system (AIS) is the collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing and

communication of such information to internal and external stakeholders (Stefanou, 2006).

In the context of SMEs, accounting information is important as it can help the firms manage their Short-term problems in critical areas like costing, expenditure and cash flow, by providing information to support monitoring and control (Mitchell et al., 2000; Son et al., 2006). Accounting information is also useful for firms operating in a dynamic and competitive environment as it can help them integrate operational initiatives within long-term strategic plans (Ismail & King, 2005). However, despite the importance of accounting information for their survival, many researchers found SMEs lack accounting information (Marriot & Marriot, 2000; Perren & Grant, 2000; McMahon, 2001b; Son et al., 2006). SMEs were reported to have poor control and make business decision based on ad-hoc basis. Due to lack of internal expertise (Berry et al., 2006; Alasadi & Abdelrahim, 2007) most SMEs acquire accounting information and control via informal means (Perren & Grant, 2000). Marriot and Marriot (2000) found financial awareness among the managers of SMEs in the United Kingdom varies considerably and the use of computers for the preparation of accounting information is not at its full potential. A more recent study by IFAC (2006) revealed that SMEs are actually aware of the importance of accounting information and use it for variety of purpose. Son et al. (2006), however, reported that while most SMEs' owners/managers in Vietnam acknowledged the importance of accounting information such as cash flow information and forecasts, the reports were normally unavailable or poorly presented. Son et al. (2006) also noted that

external users such as banks and tax authorities were concerned with the reliability of financial information provided by SMEs.

2.3.3 Accounting Systems Adopted

It is common knowledge that the main objective of a business is to maximize profit either in terms of increases in business productivity or by achieving rapid expansion in market shares domination. To achieve this goal, businesses need to be responsive to the changes in the environments, in particular to the information technology revolution. Nowadays, information technology is a must in many businesses. It is difficult to gain competitive advantage and survive without some adoption or implementation of this advancement in technological products. Studies has shown that the most widely use information system is accounting information system, specifically in financial reporting aspects (Marriot and Marriot, 2000; Riemenschneider and Mykytyn Jr, 2000; and Ismail, 2007).

Romney and Steinbart (2000) define an accounting information system as 'a system that processes data and transactions to provide users with information they need to plan, control and operate their businesses. Here, accounting information systems are viewed as a system that helps management in planning and controlling processes by providing relevant and reliable information for decision making. It suggests that accounting information system functions are not solely for the purpose of producing financial reports. It role goes beyond this traditional perspective. Accounting information system should be utilized to include planning and managing business activities. It could also be used as a controlling mechanism such as budgeting. Therefore, full adoption of the system is essential to fully attain the system's benefits. In general, financial accounting

data has been commonly defined as information prepared for external users such as creditors, investors and suppliers. Nevertheless, its functions could also be extended to include providing managers with useful data for making informed decisions or commonly known as management accounting. Both information, financial and management accounting information come from the same sources of data; the only difference is in the way these data are presented.

In management accounting, information is gathered, collated and presented in a way uniquely requested by management. This will allow managers to immediately locate the information that is useful for them. Alternatively, in financial accounting, reports are prepared in accordance to the regulators' guidelines. Traditionally, accounting information systems have been perceived as a means of providing financial information to organization (Mia, 1993). There has been considerable evidence that within SME financial accounting has remained the principle source of information for managers (Holmes and Nichols, 1988, McMahon and Davies, 1994, Nayak and Greenfield, 1994, Mairead, 1977). These studies have also found out that SMEs are still having ineffective information management, poor system control, and most decision making is on ad hoc basis despite having adopted accounting information system. Mauldin and Ruchala (1999) reason that this situation could be attributed to the initial objectives of information technology (IT) adoption. The accounting system original role of replacing manual accounting process (Mauldin & Ruchala, 1999) has hindered further usage and exploration on the system benefits. Marriot and Marriot (2000) further concluded that financial awareness among SMEs' managers varies considerably and the use of

computers for the preparation of management accounting information is not at its full potential. However, Perrent and Grant (2000) suggested that SMEs do implement effective information and control through informal means and that decision making process can be more sophisticated than anticipated. They argued that these contradiction stems largely from the researchers' paradigm rather than any real contradiction.

Hussein (1983) noted that, a good accounting system is not only judged by how well records are kept but by how well it is able to meet the information needs of both internal and external decision-makers. In his view, Clute (1980) maintained that it is common for qualified accountants to do a good job of keeping records up to date but they fail to provide information needed by decision-makers. Regarding accounting control procedures for small and micro business enterprises, Sathyamoorthi (2001) observed that, it is important to have a system of control over all business activities, as a well-designed and properly implemented control system can ensure: Protection of resources against waste and fraud; Accuracy and reliability in accounting data; and Success in the evaluation of the performance of the business. In their view, Meigs, Johnson and Meigs (1977), accounting controls are measures that relate to protection of assets and to the reliability of accounting and financial reports.

2.3.4 The Extent of Regulation in Place

The fiscal management policy of any enterprise is hinged to the nature of record management system that is employed. Quality and timely generation of reports can only be possible where systems are in place and working well. An entity that that uses the accounting information system globally for all its activities ie management of banking

and fiscal elements will definitely be in the fore front in submitting timely and accurate returns to the regulators. These includes but not limited to timely payment of taxes to tax agencies and various to levies to the other regulators and even county governments. Making claims for tax refunds/rebates will be done promptly and accurately with a sound accounting information system.

In Kenya for instance, the government through its tax agency KRA, has implemented the I-Tax system that makes individual and business entities to file return on-line, remit tax payments and lodge any tax queries on-line. This has therefore made it easy for firms to integrate their systems to be in tandem with modules of i-Tax and thus ensure timely and accurate submission of taxes.

2.4. Empirical Reviews

A number of studies have been carried out on the accounting information systems of business globally and Kenya in particular over the years. In this section a review of some of the related studies to the key topic here in will be done.

Otieno and Oima (2013) sought to investigate the effect of computerized accounting systems on audit risk management. The study employed an exploratory survey design which was longitudinal and cross-sectional using questionnaires. A sample of 41 was drawn out of the 56 public enterprises that were present in Kisumu County at the time of the study. A descriptive analysis was employed and the findings were that there exists a positive relationship between the computerized accounting system employed and the audit risk management policy in the public enterprises.

Wanjau and Wajue (2013) assessed the factors affecting the budgeting process among SMEs. The study employed a sample of 120 firms. They found that computerized accounting system contributes to budgeting process at a higher magnitude than firm and recommended that information technology should be given priority to the budgeting process due to its functionality.

Wanjau, Macharia and Ayodo (2012) investigated the factors affecting adoption of Electronic commerce among SMEs with the objective of determining the effect of leadership style, resources, infrastructure and competition on the adoption of electronic commerce among SMEs in Kenya with specific reference to hospitality industry and

concluded that there is a significant influence of leadership style, resources, infrastructure, competition and positioning.

A study by Nzomo (2011) investigating the impact of accounting information systems on organization effectiveness employed the descriptive research design. The study gathered both primary and secondary data. Primary data was obtained through interviews and questionnaires to randomly selected employees from the selected companies. The findings of the study indicated that Accounting Information System is an important mechanism for organizations' effective management, decision-making and controlling activities.

Mbogo (2011) investigated the influence of managerial accounting skills on SMEs on their success and growth. The study employed a census research design with self-administered questionnaires. A sample of 31 SMEs were drawn from the data base of KIRDI incubated SMEs. The findings of the study was that owners and managers capabilities in financial, marketing, human resource and managerial accounting influence decision – making which has effect on SMEs success and development.

According a study by Ismail and King (2005) some SME managers are capable of using IT strategically rather than focusing on administrative efficiency suggesting that the use of IT has expanded towards management accounting context. Information System Impact on Firms' Performance, SMEs accounting information system implementation and success has been extensively researched. Recent research development focuses on the

relationship between firms strategies alignment with information system (Tan, 1996; Li and Ye, 1999). These studies suggested that there are positive relationship between strategy and strategic information technology.

A study conducted by Shin (2001) discovered that IT investments will be more efficient if the systems implementation is align with the firms' strategy. This argument is supported by Cragg et al. (2002) asserting that IT implementation which is aligning with business strategy proves to have positive impact on firms' performance. In addition, Davenport (1998) highlighted the importance of having a good fit between firms' requirement and technology capabilities. The mismatch between what is needed by the firms and service offered by the new technology will yield poor performance. Nevertheless, HyvÖnen (2007) also added that sophisticated information technology aligned with ineffective performance measure will yield lower performance outcome. This raises the need for careful planning and strong justification process to be undertaken before firm reaches the decision to implement an information system. This issue is more profound within SMEs due to their limited resources and experience in IT field (Mitchell, Reid, & Smith, 2000). Other authors (Bruque, 2007; Riemenschneider et.al, 2003) investigated factors that influence the adoption of information technology in SMEs. Both authors generally agreed that SMEs adoption of information technology were mainly influenced by the perceived benefits of implementing the systems and stems from the pressures received from competitors, customers, and suppliers to ensure business continuity and survival in the increasingly competitive environment. Many firms invest in advanced information technology aiming at collecting more information to assist

decision making performance which will eventually lead to improve efficiency and firms' profitability. Study showed that firms' that acquire extensive IT resources are able to create competitive advantage (King, 1989). Nevertheless, prior researches have difficulty providing evidence on positive relationship between IT investments and firms' performance (Mahmood & Mann, 1993; Ismail, 2007) Mixed and inconclusive findings suggesting that a more in depth analysis is required.

A study by Urquia, Perez & Munoz, (2011) on the impact of AIS in performance measures of SMEs in Spain is a related one. The study employed a sample 632 firms .The indicators chosen to study the effects of degree to which computerized accounting system had been set up were productivity, economic and financial returns. The study aim was to find out the extent to which implementation of the AIS had taken place and a subsequent analysis was done to ascertain as to how much the introduction may impact on improvement in outcome indicators and productivity. An interesting result found out that there is a positive relationship between firm that uses AIS for fiscal and bank management and better performance measures.

2.5. Conclusion of Literature Review

In summary, there is a lot evidence of studies that have been done in the past that shows a positive relationship between adoption of quality accounting information system and financial performance of Small and medium sized enterprises both locally and globally.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the methods that will be used in the study. The Chapter is divided into six main sections that describes the research design, target population, sample design, validity and reliability, data collection procedures, data analysis and presentation.

3.1 Research Design

Research design involves turning research questions into research project (Robson, 2002). This means that to answer the research questions, the appropriate strategies, methods and techniques should be adopted. Nachmias and Nachmias (1993) define research design as the program that guides the investigator in the process of collecting, analyzing and interpreting data. Yin (1994) proposes that the types of research questions determine the most suitable strategy. The research questions in this study focus mainly on what questions. And to answer this type of question, a survey strategy is preferred (Yin, 1994). Kothari (2008) describe several types of research, e.g experimental, descriptive, exploratory and interpretive. Descriptive research aims at identifying and recording a phenomenon, processor system and may be conducted using surveys (Fellows and Liu, 2003). The research presented in this study is of descriptive survey design that is appropriate for preliminary and exploratory studies so as allow the researcher gather information, summarize, present and interpret data for the purpose of classification (Orodho, 2003).

3.3. Population

The population consisted of all the Small and Medium enterprises in Nairobi County which was approximately in excess of 5000 enterprises.

3.4 Sample Design

The sampling plan describes how the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the sample will be selected (Cooper & Schindler, 2003). A convenient sample of 50 SMEs was studied. The sample was selected from registered businesses operating in Nairobi County. In order to carry out a scientific study, the sample of 50 enterprises was desirable taking into account of the fact that the researcher was limited in resources in terms time and money.

3.5 Validity and Reliability

3.5.1 Validity

Validity shows whether the instrument measures what they are designed to measure (Borg and Gall, 1989). Ensuring the validity of the data collection instrument involves going through questionnaire in relation to the set objectives and making sure that they contain all the information that could enable answering these objectives. The tools are developed by the researcher and content and face validity are to be established. The content validity was established to ensure the accuracy of instruments (Leeds, 1993). The face validity was to ensure that the instrument appear to measure what it is purported to measure.

3.5.2 Reliability

The instruments was piloted in other areas that did not form part of the actual study that was, Kisumu County. This enhances the reliability and validity of the instruments (Mugenda and Mugenda, 1999). The result of the piloted instruments was to calculate the reliability coefficient. Reliability is established to ensure accuracy or the consistency of the instrument, that is, the extent to which the results remain similar over different forms of the same instruments (McMillan & Schumacher, 1993).

3.6 Data Collection Procedures

This study was aimed at investigating the effects of accounting information system on financial performance of Small and Medium enterprises in Nairobi County. In order to collect data, the researcher used questionnaires. This instrument was used to collect information about the respondents' effects of accounting information system on financial performance of SMEs in Nairobi County measured on a 5 point Likert scale. The questionnaire had four sections. Each section was developed to address a specific objective. Part A was aimed at collecting data on the types of accounting records being kept and maintained by SMEs. Part B was on the extent of accounting information knowledge and usage by SMEs. Part C was on data about the type of accounting information system used by SMEs. And finally Part D was on the effects of the extent of regulation on adoption of accounting information system.

3.7 Data Analysis and Presentation

Quantitative methods of analysis were used to analyze the data collected from the sample of enterprises for a period of 2 years for financial periods ending 31st December 2013 and 2012. The collected data was sorted, classified and coded then tabulated for ease of analysis. The data was then summarized and categorized according to common themes. The results were then analyzed using the Statistical Package for Social Science (SPSS) version 20 software. Binary Logistic regression model was used to fit the relationship between the variables. The results were presented in tables from which interpretation were drawn. The model was validated using the WALD statistic and the chi-square tests.

The model that was used in the study to establish the relationships between the accounting information system quality and financial performance was presented as follows:

$F(x) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

Where:

F(x)-Financial Performance as measured by the natural log of the shift on Return on Assets (ROA)

B0-a constant

X1- The Nature of Records and Reports Generated

X2- The level of knowledge and usage of the Accounting information system

X3- Nature of the accounting information system applied

X4-The Extent of Regulations Applicable,

 e-The error term

The dependent variable was measured by the shift in ROI in two year periods and ROI was calculated as below:

ROI (Return on Investments) =Net Income

Total Assets

Table 1: Variable Definition and Description

Variable	definition	Measurement
ROI	Return on Investments	Measured by the shift in ROI in two year periods
NRRM	Nature of Records and Reports Management	Measured by Question of part C, No.2 in the appended questionnaire
KUAI	Level of Knowledge and Usage of Accounting Information aspects	Measured by Question of part D, No.2 in the appended questionnaire
NAIS	Nature of Accounting system adopted	Measured by Question of part E, No.2 in the appended questionnaire
RAIS	Extent of Regulation in place	Measured by Question of part F, No.3 in the appended questionnaire

TableTable 2: Variable Coding and Description

DESCRIPTION	CODE	MEANING
CHANGE IN ROI	0	INCREASE
	1	DECREASE
NATURE OF RECORDS AND REPORTS	0	MANAGEMENT ACCOUNTING REPORTS
	1	FINANCIAL ACCOUNTING REPORTS
KNOWLEDGE OF THE 4 ACCOUNTING INFORMATION ASPECTS	1	HIGHLY KNOWLEDGEABLE
• Cash flow projections/Budgeting	2	MODERATELY KNOWLEDGEABLE
• Financial statements	3	KNOWLEADGEABLE
• Ratio Analysis	4	MODERATELY UNKNOWLEDGEABLE
• Product/service costing	5	COMPLETELY UNKNOWLEDGEABLE
USAGE OF THE 4 ACCOUNTING INFORMATION ASPECTS	1	HIGHLY USED
• Cash flow projections/Budgeting	2	MODERATELY USED
• Financial statements	3	USED
• Ratio Analysis	4	MODERATELY UNSUSED
• Product/service costing	5	COMPLETELY UNSUSED
NATURE OF THE AIS IN USE	0	MANUAL
	1	COMPUTERISED
WHETHER REGULATED	0	YES
	1	NO
WHETHER REGULATION AFFECTS AIS IN PLACE	0	YES
	1	NO

DATA ANALYSIS, INTERPRETATION AND PRESENTATION

4.1 Introduction

This chapter presents the data findings to determine the effect of accounting information system quality on financial performance of smes in Nairobi County. The data was collected from the enterprises in the county. Binary Logistic regression model was used. The study covered a period of 2 years from years 2012 to 2013.

4.2. Response Rate

All the questionnaires which were delivered to the 50 business enterprises were all returned duly filled. Thus the response rate was 100% as represented below.

Table 3: Response Rate

	Number	Percentage
Returned	50	100
Delivered	50	100

4.3. Descriptive Statistics

From the analysis it shows that the total number of respondents was 50, maximum and minimum values were 1 and 5 for most variables. Return on assets had minimum value of 0 and maximum value of 1(0-increase in ROI, 1-decrease in ROI) with a mean of 0.4 and standard deviation of 0.4984.Nature of records and reporting had a mean of 0.42 and standard deviation of 0.499 with the minimum value of 0 and maximum value of 1(0-

management accounts,1-financial accounting reports).Extent of knowledge and usage was measured by the variables represented by cash flow projections/budgeting, financial statements, ratio analysis and product/service costing as shown in the table below. The minimum value was 1 and the maximum value was 5(where 1-highly knowledgeable/used, 5-completely unknowledgeable/used). Ratio analysis was picked as a measure of this variable and it had a mean of 2.64 and a standard deviation of 1.495.nature of accounting information system in use was measured by the variable nature and it had a minimum value of 0 and a maximum value of 1 where (0-manual system, 1-computerised system).The mean value and the standard deviation were 0.6 and 0.495.The extent of regulation was measured by the variable regulationaffectAIS which had a minimum value of 0 and maximum value of 1(0-yes,1-no).The mean value was 0.16 and a standard deviation of 0.370.

Table 4: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Median
RESPONDENT	50	1	50	25.50	14.577	24.72
RoiStatus	50	.00	1.00	.4000	.49487	0.40
NATUREofrec	50	0	1	.42	.499	0.39
casflowprojbudgeting	50	1	5	2.68	1.362	2.78
financialstmts	50	1	5	2.78	1.418	2.65
Ratioanalysis	50	1	5	2.90	1.403	2.78
productservicecosting	50	1	5	2.82	1.453	2.79
casflowprojbdg2	50	1	5	2.72	1.457	2.62
financialstmts2	50	1	5	2.72	1.512	2.65
Ratioanalysis2	50	1	5	2.64	1.495	2.54
productservcosting2	50	1	5	2.72	1.471	2.12
NATURE	50	0	1	.60	.495	0.546
Regulated	50	0	1	.42	.499	0.41
regulationaffectAIS	50	0	1	.16	.370	0.17
Valid N (listwise)	50					

4.4. Correlation Analysis

Table 5: Correlation Analysis

		ROI	NRRM	KUAI	NAIS	RAIS
ROI	Pearson Correlation	1				
NRRM	Pearson Correlation	0.6	1			
KUAI	Pearson Correlation	0.73	0.41	1		
NAIS	Pearson Correlation	0.622	-0.23	-0.22	1	
RAIS	Pearson Correlation	0.539	0.18	0.12	-0.5	1

$P<0.01$

From the analysis as shown in table 4.2 above there are significant relationships between the various aspects of the independent variables and the return on investment. The nature of records and reports had a correlation coefficient of 0.6 with a very minimal value of sig which showed a high relationship with the shift in ROI. The extent of knowledge and usage was measured by the variables KUAI which showed strong correlation with Pearson correlation coefficients of 0.73with very minimal values of sig which was much lower than 10% level of significance. The nature of accounting information system in place was measured by the variable nature and had correlation coefficient of 0.622 whereas the extent of regulation had a correlation coefficient of 0.539.

4.5. Regression analysis

4.5.1. Model Summary

Table 6: Table of Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	15.515[a]	.645	.872

The above cox and snell R Square as well as the nagelkerke R Square which are equivalent of coefficient of determination in a logistic regression model, tells the variations of the dependent variable that is explained by the changes in the independent variables. From the findings value of R square was 06.45 and 0.872 which shows that 64.5% for cox and 87.2% for nagelkerke of the changes in shift in ROI were explained by the changes in the responses for nature of records and reports Management, extent of knowledge and usage of accounting information, nature of accounting information system adopted and the extent of regulation in place at 90% level of significance.

4.5.2 Model Validation

Table 7: Classification Table

			Predicted		
			RoiStatus		
Observed			increase	decrease	Percentage Correct
Step 1	RoiStatus	increase	28	2	93.3
		decrease	1	19	95.0
	Overall Percentage				94.0

Table 8: Chi-Square test of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	51.786	4	.000
	Block	51.786	4	.000
	Model	51.786	4	.000

The model is significant at 0.1 level of significance based on the results from the table 4.3 and 4.4 below. From the classification table below it shows that 94% of observations can be correctly predicted by the model. Further the chi-square test below on table 4.4 shows sig values which are all zero thus validates the model.

4.5.3 Regression Coefficients

Table 9: Regression Coefficients

		B	S.E.	Wald	df	Sig.	Exp(B)
tep 1[a]	financialstmts2(NRRM)	1.425	.563	6.412	1	.011	4.156
	Ratioanalysis2(KUAI)	2.084	1.118	3.473	1	.062	8.037
	Nature of AIS(NAIS)	-4.037	1.907	4.480	1	.034	.018
	Regulation affect AIS(RAIS)	3.432	1.928	3.167	1	.075	30.937
	Constant	-8.522	3.534	5.815	1	.016	.000

Logistic regression model was fitted for the study. The model values were therefore as shown in the table above. From the analysis a unit change in nature of records and reports generated will lead to an increase of 1.425 log odds on ROI.A unit change in the extent of

37

knowledge and usage of ratio analysis will lead to an increase of 2.084 log odds on ROI. Similarly a unit change in the extent on regulation in place will lead to an increase of 3.432 log odds on Return on Investment (ROI).a unit change on the AIS in place will lead to a decrease of 4.037 log odds on the ROI

The model representation is therefore,

$$F(x) = Y = Ln (D/1-D) = -8.522 + 1.425X1 + 2.084X2 + 3.432X3 - 4.037X4$$

4.6. Discussion of Research Findings

The objective of the study was to determine the effect of accounting information system quality on the financial performance of smes in Nairobi County. Primary Data was collected from a sample of 50 business enterprises in the county. Data was collected using self-administered questionnaires through drop and pick method. Quantitative data was collected on the total assets and total net income from the sample of the 50 business enterprises in the county for the two year period ending December 2013 and 2012.Return on Investment (ROI) was calculated for the two years for each of the enterprises sampled. ROI was the measure for financial performance which was the dependent variable. The shift in ROI ie the increase or decrease in ROI in year 2 from year 1 was the real measure which was considered binary as 0 meant increase and 1 meant decrease. This therefore set the option of using the binary logistic regression model to determine the relationship between the study variables. The study showed that 60% of respondents indicated an increase in ROI in year 2 as opposed to 40% which showed declines.

The independent variables under study included the nature of records and report management, the level of knowledge and usage of the accounting information system, the nature of the accounting system adopted and the extent and effect of regulation on the choice of the accounting information system. These independent variables were measured from question whose answers were sought from owners, top management and accountants for the 50 sampled enterprises in the county. The nature of records and reports had two sections which sought to seek the preparers of the financial statements and the accounting records and reports which were majorly generated and used mostly by the entity. The results showed that 42% of respondents used financial accounting reports as opposed to 58% that utilizes management accounting reports.

The measure of the accounting information knowledge and usage was based on a 5 point likert scale on the four aspect of financial information which included cash flow projections and budgeting, financial statements, ratio analysis and product/service costing. The measure 1 indicated no knowledge/do not use whereas 5 was very knowledgeable and highly used. The results obtained indicated that 66% of the respondents indicated that they had knowledge and relatively used the cash flow projections and budgeting where as 34% had no knowledge and therefore never applied them. About 62% of the respondents indicated they have knowledge about financial statements and equally used them where as 38% indicated they have no idea about them. On ratio analysis knowledge and use, 64% of the respondents indicated they have knowledge and equally applies them on their businesses where as 36% had no idea.

Similarly the same result of 64% for knowledgeable and 34% for unknowledgeable were recorded for the product and service costing.

On accounting information system applied, all the respondents indicated that they have some form of system of accounting. Consequently the measure of this variable was therefore the nature of the accounting system employed by the entities.70percent of the respondents indicated they have a computerized accounting system where as 30% polled otherwise. The measure for the extent and effect of regulation on accounting information was on the question that sought to determine whether the entity was regulated and if so how the regulation affected their choice of the system. About 40% of the respondents said their entities are regulated where as 60% polled otherwise. Similarly about 52% of the respondents indicated the extent of regulation affected their choice of accounting information system in place.

The strong correlation between all the independent variables and the dependent variable as shown in table 3 above indicates a strong relationship between the shift in ROI and each the independent variable measures. The correlation coefficient indicates figures which are above 0.5 with sig values of near zero hence the relationship is significant and very strong. The strong correlation coefficient 0.6 between ROI and nature of records and reports management indicates that if the customer shifte3d their choice of management accounting reports and financial accounting reports by one unit the ROI will shift by 0.6 in the opposite direction. Similarly if the respondents shifted their choice of the four aspects of accounting information ie from moderately to highly knowledgeable then the

ROI will shift by 0.8 for cash flow and budgeting,0.9 for financial statements,0.8 for ratio analysis and 0.86 for product/service costing. The same applies to all the four aspects of accounting information on the usage. The correlation coefficient of 0.622 between the nature of AIS in place and the shift in ROI indicates that if the respondents shifted their choice of AIS i.e. from manual to computerized then ROI will shift by 0.622 in the opposite direction. The interpretation of this is that if the entity changed their accounting information system ie from manual to computerized then their return on investment would increase by 0.622.the extent of regulation had a correlation coefficient of 0.7 with ROI. This means that ROI is heavily related to the level of regulation such that if the respondent shifted their stand by one level ie from regulated to not regulated, then the ROI would shift in the same direction by 0.7.Similarly the effect of regulation on the choice of accounting information system had a correlation coefficient of correlation of 0.539.this indicated. This is a significant figure since its more than 0.5 and the sig value is smaller i.e. 0.0000531.the interpretation of this is that if the respondent choice by one level and indicated that the regulation does not affect instead of affect then there would be a change in ROI in the same direction by 0.53.

To fit the regression model onto the variables the questions which were taken as measures to the independent variables were whether the firm uses management accounting reports or financial reports for records and report management, the extent of knowledge and usage of accounting information system was measured by four accounting aspects of cash flow projection and budgeting, ratio analysis, financial statements and product/service costing. A Component analysis was done and the found

41

out that the statements usage and ratio analysis highly usage contributed to ROI and thus were picked as the measures for Record and Report management and extent to knowledge and usage variables respectively. The nature of AIS and regulation affect AIS were used to measure the nature of AIS in place and the extent of regulation respectively. The results showed that the nature of records and report had a coefficient of 1.425, 2.084 for extent of knowledge and usage, 3.432 for regulation effect in place and -4.037 for the nature of accounting information in place.

The regression model was therefore represented by:

$F(x) = Y = Ln (D/1-D) = -8.522 + 1.425X1 + 2.084X2 + 3.432X3 - 4.037X4$

Where: D=Decrease in ROI Denoted by 1 in the data

(1-D)= Increase in ROI Denoted by 0 in the data

Ln=natural logarithm

Thus: Ln (D/1-D) is the log odd of the dependent variable.

X1-nature of records and report management

X2-Extent of knowledge and usage of AIS

X3-Nature of AIS in place

X4-Extent of Regulation.

The interpretation of the above function is that when the respondent decide to change the response let's say by one level then the dependent variable; Financial performance measured by log odds of ROI will change by 1.425 log odds for a change in nature of

records and reports, 2,084 log odds for extent of knowledge and usage, 3.432 log odds for nature of AIS and -4.037 log odds for the extent of regulation.

The model was quite significant as shown by the R square of0. 87 thus 87% of the changes in the dependent variable are caused by changes in the independent variables. Further the Walds statistics with the minimal sig values indicate that the regression coefficients are statistically significant as well as the values of the chi square test results. Overall, the model is significant and thus can be used for prediction purposes on large data values.

The major findings of this study are that a significant percentage of the firms that recorded increases in ROI had also their respondent having a well grasp of the four accounting information aspects under study and as well applied them in their operations. More to note is that those firms that used computerized accounting had noted increases in ROI and further the choice of accounting information system was necessitated by the needs and requirements of the regulator. This can be explained by the fact that the format of reporting as well the informational requirements by the regulator must be incorporated in the accounting system for ease of processing.

The findings of this study sit well with other research finding done by others. A study by Otieno and Oima (2013) sought to investigate the effects of computerized accounting system on audit risk management. The findings were that there exists a positive relationship between the computerized accounting system and audit risk management policy. A study by Nzomo (2011) sought to find out the impact of accounting information

system on organizational effectiveness. The findings of the study indicated that the accounting system is an important mechanism for organizational effectiveness, decision making and controlling activities. This study found out that, there exists a positive relationship between the quality of accounting information system and financial performance of SMES in Nairobi County.

<center>**CHAPTER FIVE**</center>

<center>**SUMMARY, CONCLUSIONS AND RECOMMENDATION**</center>

5.0 Introduction

From the analysis of the data collected and subsequent discussion of results, the following summary, conclusion and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to determine the effect of accounting information system quality on financial performance of smes in Nairobi County.

5.1 Summary

The objective of the study was to determine the effect of accounting information system quality on the financial performance of smes in Nairobi County. Primary Data was collected from 50 business enterprises in the county from diverse sectors. The response rate was a 100% with nil missing values noted from the questionnaires. The dependent variable for measure was financial performance of SMES measured by the shift in Return on Investment for the two year period under study. The independent variables were measured by the various specific questions on the self-administered questionnaire. The data analysis revealed there is a strong correlation between the shift in ROI and each of the study independent variable measures. A binary Logistic regression model was fitted and tested for significance. The study revealed that 87 % changes in financial performance of SMES in Nairobi County could be accounted for by changes in nature of records and reports generated and utilised, nature of accounting information system employed, knowledge and usage of key accounting information aspects and the extent of

regulation in place. From the findings of Nagelkerke R square, which is the proxy for coefficient for determination in binary logistic regression model, the study found that there was a strong positive relationship between the study variables.This therefore means that the model can be used as a predictor model for future values of the same nature.The major finding of the study depicts the main objective of the study was met ie there exist a strong relationship between ROI and the accounting information system quality measures.

5.2 Conclusion.

In conclusion, the variables under study have been found to be significant and such the model is significant for prediction purposes. The major finding of the study is that there was a strong postive relationship between Accounting information system quality meaasures such as records and reports management,the extent of knowledge and usage,the nature of the accounting information system in use and the extent of regulation in use with the financial performance as measured by return on investment(ROI) of SMES in Nairobi County, thus the study concludes that accounting information system quality positively affects the financial performance of SMES in Nairobi County.

It's good to note that the accounting records and reports are necessary for provision of relevant information for decision making purposes. It means therefore that proper decision making mechanism which leads to increased efficiency, reduction of costs and improved performance is hinged on readily available of up to date concise and accurate records and reports. Similarly when decision makers and staff are well versed with accounting and financial skills then reliability of their decisions will be enhanced.

The use of computerized accounting system should be encouraged across board as the findings of this study showed that those firms which employed this strategy recorded an increased return on investment as opposed to those who did otherwise. The aspect of regulation was very particular for this study. The general expectation is that when firms are regulated closely then they are expected to file certain returns with regulator periodically. With this, the firms will be forced to have a system that will capture uniquely the regulators informational requirements and in the format that they need it hence was a very good ingredient for the study.

Finally the study objective was met and clear relationship between the variables was determined and tested. It was relevant to note that similar research done on the concept had objectives and findings relating well with the findings of this research ie Otieno and Oima (2013).

5.4 Recommendations for the Study

Based on the findings of the study an adoption of computerized accounting information system is advisable for all firms in a bid to ensure correctness in reporting and general record management as enterprises that had this system showed an increase in return on investment as opposed to those that had a manual system. It's in deed necessary since there will be minimal human interference in record and report generation which then will reduce biases and hence ensures credibility and reliability on those reports. Operational efficiency will be achieved through timely processing of information, bulk processing and cost reduction which in turn leads to increased performance. With computerization, the firm can be able to expand its scope of operations in wide geographical arena. This

saves on costs and even eases processes which could otherwise be tough in a manual set up. Interfacing of one's computing platform with other organizations have seen many organization produce quick reporting on key aspects which can only be gotten manually from the other firm e.g. a brokerage firm and the NSE or custodian. With this interlink most firms can link their banking records with the bank to their system on line and thus perform most of their banking needs at the comfort of their offices. This needs to be encouraged for all smes in the country.

Development and application of easy training modules for managers and owners so as to equip them with key accounting information concepts is well necessary. The study showed that those enterprises for which the respondents were highly knowledgeable recorded increases in the Return on Investment. The aspects of decision making is critical for success or failure of any business and thus the nature of decision making must be informed by facts hence the need for relevant skills. Training needs to capture all aspects of the business and should target all the players in that entity. Much more encouragement of on line training is necessary as this proves to be cheaper and convenient as the staff will leave their work stations to attend trainings.

There is need to encourage of regulation of any nature in all businesses. This is not only to bring sanity but to set standards and ensure provision of certain informational requirements which are of financial report format to encourage most business operators to be aware of basic reporting skills. This can even be made on line in nature and such it leads to more adoption of computerized systems. Most respondents that indicated that

their businesses were regulated reportedly had a computerized accounting system and further were much knowledgeable on the key accounting information aspects and even had better returns. This could be due to the unique informational requirements of the regulator. It's important to note that if filing of tax returns, returns with the registrar of companies, societies etc could incorporate the segment that requires the provision of financial accounts in a given prescribed format and in an online mode then most firms would be encouraged to adopt computerized accounting systems.

5.5 Limitations of the Study

The study was only limited to business enterprises in Nairobi county which is unique since it's the capital city of the country and thus may not reflect the same position in other areas within or outside the country.

Study area was only limited to specific aspects of accounting information system quality as function of financial performance. These aspects are therefore not the only determinants of performance of enterprises.

The study only considered two financial year periods and such, only the aspects of accounting information system within the two year period was of essence.

A sample of 50 enterprises was used due to time and resource limitation as opposed to a large sample or even a survey of all firms.

5.6 Suggestions for Further Research

The limitations have therefore left room for further research in a more expanded scope by covering the entire country and narrowing into specific sectors as opposed to all the sectors.

A longer time period can be considered in future so to establish the trend in order to ensure consistency. A firm which has been in operation over a longer period of time tends to give a clear picture of the study variable as opposed to short term operation.

More aspects of accounting information system quality could be studied in future including software acquisition costs, processing power etc in order to obtain in totality the relationship with performance.

In future the researcher could consider using a larger sample in order to achieve a much higher precision.

REFERENCES

Agrawal, A.,& C.R. Knoeber (1996). "Firm Performance and Mechanisms to Control

Agency Problems between Managers and Shareholders," *Journal of Financial and Quantitative Analysis*, 31, 377-397.

Amidu. M, John E, Joshua A (2011) E-Accounting Practices Among Small & Medium
    Enterprises in Ghana, *Journal of Management Policy and Practice,* 12 (4);146-155.

Amyx, C. (2005) Small Business Challenges – The Perception Problem: Size Doesn't Matter.
Washington
Business Journal.

B. *Meigs*, Charles E. and R. *Meigs*. (1977). "Accounting, the Basis for Business
    Decisions", McGraw Hill Limited.

Borg T. & Gall S. (1996). *Research Methodology in the Behavioral Science*, Longman,
    Lagos.

Bruns Jr., W.J. and Kaplan, R.S. (1987). *Accounting and Management: Field Study
    Perspectives*. Harvard Business School Press, Boston, 97–118.

Chenhall, R. H., & D. Morris. (1986). The Impact of Structure, Environment, and
    Interdependence on the Perceived Usefulness of Management Accounting Systems.
    The Accounting Review. LXI(1), 16-35.

Clute, R.C. & Gitman, G.B. (1980). A Factor Analytic Study of the Causes of Small
Business Failure, Journal of Small Business Management, USA.

Cragg, P. B., King, M. R., & Hussin, H. (2002). IT alignment and firm performance in
small manufacturing firms. *Journal of strategic information systems* , 109-132.

Crotty, M. (1998). The Foundation of Social Research: Meaning and Perspective in the
Research Process. SAGE Publications Ltd, Oliver Yard, 55 Road, London EGIY ISP.

Cooper, D. Schindler, S.P (2003). *Business Research Methods*. McGraw-Hill School Education Group.

Donaldson, L. (2001): The contingency theory of organizations, Ed. Sage, California.

Ezzamel, M., & R. Watson (1993). "Organizational Form, Ownership Structure and Corporate Performance: A Contextual Empirical Analysis of UK Companies," *British Journal of management*, 4, 161-176.
Fellows, R. & Liu, A. (2003) *Research methods for building*, Oxford, Blackwell
Gerdin, J.; Greve, J. (2004): **"**Forms of contingency fit in management accounting research-a critical review", Accounting, Organizations and Society, 29, 3-4, 303-326.

Holmes S, Nicholls D (1988). An analysis of the use of accounting information by Australian small business. Journal of Small Business Manager. 26(2): 57-68.

Horngren, C.T., (1995). "Management Accounting; This century and Beyond", Management Accounting research, Vol. 06,pp 281-286.

Hussein, M.E.I.M. (1983). Accounting and Control Systems for Small Business, Touché Ross Foundation.

HyvÖnen, J. (2007). Strategy, Performance measurement techniques and information technology of the firm and their links to organizational performance, *Management Accounting Research*, 18, pp 343-366.

International Accounting Standards Committee Foundation (IASCF 2007). Exposure Draft of a proposed IFRS for SMEs. February 2007. IASC Foundation Pubs. London.

Ismail, N.A. & M. King, 2005**.** Firm performance and AIS alignment in Malaysian SMEs. International. Journal. Accounting Information. System, 6: 241-259.

Ismail, N. A. (2009). Factors influencing AIS effectiveness among manufacturing SMES: Evidence from Malaysia. *The Electronic Journal on Information Systems in Developing Countries*. 38(10), 1-19.

Jensen, M.C., & W.H. Meckling (1976): "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 3. 305-360.

King, W. R. (1989): **"**Using information and Information Technology for Sustainable Competitive Advantage: Some Empirical Evidence", *Information and Management, 17*, 87-93.

Klein, K. (2002): "Balancing *the Books—By the Boo"*. Business Week Online (Feb. 4).

Kothari C.R (2008): "Research *Methodology method & Techniques"* – Second Edition Kaplan.

Kren, L. (1992): "Budgetary participation and managerial performance: The impact of information and environmental volatility". *Account Review; 67: 511–26.*

Li, M. & Ye, L. (1999). "Information technology and firm performance: Linking with environmental, strategic and managerial context", *Information Management*, 35, pp 43-52.

Langfield-Smith, K. 1997. "*Management control systems and strategy*:" A critical review. Accounting, Organizations and Society 22(2): 207-232

Mahmood, M. A., & Mann, G. J. (1993): "Impact of information technology investment: An empirical assessment", *Accounting, Management & Information Technology, 3* (1), 23-32.

Marriot, N., & Marriot, P. (2000): **"**Professional accountants and the development of a management accounting service for the small firm: Barriers and possibilities." *Management Accounting Research*; 11: 475-492.

Mairead, T. (1997): "Accounting information and small firms", a paper presented at the *20th/SBA National Conference*, Belfast.

Maseko, N. & Manyani,O. (2011): "Accounting practices of SMEs in Zimbabwe", *Journal of Accounting and Taxation Vol.* 3(8), pp. 171-181, December 2011

Maudlin, E.G., & L.V. Ruchala. (1999): "Towards a meta-theory of accounting information systems", *Accounting, Organizations and Society* 24 (May): 317-331.

Mbroh, J.K. (2011): "Methods of Accounting Practices by Small Business Owners in the Cape Coast Metropolitan Area of Ghana", *Journal of Polytechnics in Ghana, Vol.5, No.1, pp-129-151.*
McMillan, J. J & Schumacher, S., S. (1993). *Research in Education:* A Conceptual Introduction 3rd Ed**.** New York: Harper Collins

Mia, L. & Chenhall, H. (1994): "The usefulness of management accounting systems, functional differentiation and managerial effectiveness", *Accounting Organization Society*.

Mitchell, F., Reid, G. & Smith, J. (1999): "Information System Development in the Small Firm", CIMA Research Foundation.

Mbogo, M. (2011): "Influence of Managerial Accounting Skills on SMEs on the Success and growth of Small and Medium Enterprises in Kenya", *Journal of Language, Technology Entrepreneurship in Africa*. Vol. 3 (1).

Mugenda, O.M. & Mugenda, A.G. (2003): *Research methods: Quantitative and qualitative approaches*.2nd. Rev. Ed. Nairobi: Act press.

Mukherji, A. (2002): "The evolution of information systems: their impact on organizations and structures", *Management Decision, 40* (5), 497-507.

Nachmias, C. & Nachmias, D. (1993). *Research Methods in the Social Sciences* (Fourth Ed). University of Wisconsin. Milwaukee. New York.

Naranjo, David (2004): "The Role of Sophisticated Accounting System in Strategy Management", *the International Journal of Digital Accounting Research*, 4 (8):125-144.

Nayak, A., & Greenfield, S. (1994): "The use of Management Accounting Information for micro Business", In Hughes, A. and Storey, D. (eds), Finance and the Small Firm. Routledge, London.

Nzomo S. (2013): "Impact of Accounting Information System on Organizational Effectiveness of auto mobile Companies in Kenya", Unpublished MBA Report of the University of Nairobi

Otieno, P.J & Oima, D. (2013): "Effect of Computerized Accounting Systems on Audit Risk Management in Public Enterprises, A Case of Kisumu County", *International Journal of Education and Research.* Vol. 1 (5).

Riemenschneider, C. K. & Mykytyn Jr, P. P. (2000): "What small business executives have learned about managing information technology", *Information and Management*, 37, pp 257-269.

Son, D.D., Marriot, N. & Marriot, P. (2006): "Users' perceptions and uses of financial reports of small and medium companies in transitional economies: Qualitative evidence from Vietnam", *Qualitative Research in Accounting & Management*, 3(30, p. 218 – 235.

Tan, R.R. (1996): "Information technology and perceived competitive advantage: an empirical study of engineering consulting firms in Taiwan", *Construction Management Economics*. 14, pp 227-240.

Tayles, M. & Drury, C. (1994): "New manufacturing technologies and management accounting system: Some evidence of the perceptions of UK management accounting practitioners", *International Journal of Production Economics*, vol. 36, 1-17.

Orodho, A**.** (2003). *Essentials of education and social science research methods.* Nairobi: Masola publishers

Otley, D. T. (1980): "The contingency theory of management accounting: achievement and prognosis", *Accounting, Organizations and Society,* vol. 5, no.4, 413-428.

Perren, L., & Grant, P. (2000): "The evolution of management accounting routines in small
Businesses: A social constructive perspective", *Management Accounting Research; 11: 391-*
411.

Porter, M., & Millar, V. E. (1985): "How information gives you competitive advantage", *Harvard Business Review, 63*(4), 149-160.

Prevost, A.K., R.P. Rao, & M. Hossain (2002): "Board Composition in New Zeeland: An Agency Perspective," *Journal of Business Finance & Accounting, 29, 731-760.*

Robson C (2002): "Real World Research", *A Resource for Social Scientists and Practitioner-Researchers*, 2nd edition Oxford: Blackwell.

Romney, Marshall B., Steinbart, P. J., & Cushing, E. B. (1997). *Accounting Information System.* Seventh Edition, Addison-Wesley.

Sathyamoorthi, C.R. (2001): "Accounting and Control Systems in Selected Small and Micro Enterprises in Botswana", *African Journal of Finance and Management,* Vol.10 No.1, pp.96-109.

Selltiz, C. Wrightsman, L. S. Cook, S. W. (1981): *Research methods in social relations.* 4th ed. - New York : Holt, Rinehart and Winston.

Sheridan, J. C., & Lyndall, G. S. (2001). *SPSS Analysis without Anguish.* John Wiley & Sons Australia,Ltd.

Shin, N. (2001): "The impact of Information Technology on Financial Performance: The importance of Strategic Choice", *European Journal of Information Systems,* 227-236.

Urquia,Perez & Munoz, (2011): "The Impact of AIS in Performance Measures", *The International Journal of Digital Accounting Research, Vol.11,2011,pp.25-43*

Warue, B.N. & Wanjira, T.V. (2011): "Assessing Budgeting process in Small and Medium Enterprises in Nairobi's Central Business District: A case of Hospitality Industry", *International Journal of Information technology and Business Management*, Vol. 17 (1).

Wanjau, K., Macharia N. R. & Ayodo E.M., (2012): "Factors Affecting Adoption of Electronic Commerce among Small and Medium Enterprises in Kenya: Survey of Tour and Travel Firms in Nairobi", *International Journal of Business, Humanities and Technology, Vol. 2 (4).*

WAH, L. (2000): "Give ERP a chance", *Management Review*, vol. 89

Yang, H. M., Lin, S. W., & Koo, L. T. (2011): "The impact of computerized internal control adaptation on operating performance", *African Journal of Business Management, 5*(20).

EFFECT OF ACCOUNTING INFORMATION SYSTEMS QUALITY ON FINANCIAL PERFORMANCE OF SMES IN NAIROBI COUNTY

INSTRUCTIONS

Please answer all the questions honestly and exhaustively. All the information given will strictly be used for academic purpose/ research only and will be treated with the utmost confidentiality.

A. ORGANIZATION'S BACKGROUND INFORMATION

1. Organization's name…………………………………

2. Industry Sector…………………………………………

3. Date of incorporation/Registration…………………………………..

4. Size of Entity (Number of Employees)…………………

5. Legal Ownership (a) Sole proprietorship ☐   (b) Partnership ☐   (c) Limited Liability Company ☐

6. Position of Respondent (a) Owner ☐ Manager ☐ Accountant ☐ Auditor ☐ Others ☐

7. Highest level of education attained (Please tick in the appropriate box below)

A levels (form 6)	KCPE	KCSE	Diploma	Graduate	Postgraduate

8. Other professional qualifications attained (Please tick in the appropriate boxes below)

CPA (Certified Public Accountant)	CISA (Certified Information System Audit)	CFE (Certified Fraud Examiner)	Any other (Please specify)

9. How many years have you been in the industry?

      1 – 5 years ( ) 6 – 10 years ( ) 11 – 15 years ( ) 16 – 20 years ( ) Over 20 years ( )

B. Financial Performance of the Firm

Kindly provide the details of the firm's financial performance for the financial period/ year ends in Kenya shillings as below:

YEAR	NET INCOME	TOTAL ASSETS
2012		
2013		

C. Nature of Records and Report Management

1. Who maintains and prepares the books of accounts and the Financial Statement of the business entity? Tick ( ) Where appropriate.

    (a) Owner ☐   (b) Manager ☐ Full Time Accounting Officer ☐

    Consultant ☐

2. Which Accounting records and reports are mainly generated and consumed by the Entity?

    (a) Management Accounts Reports ☐ (b) Audited Financial Accounts ☐

C.   Accounting Information Knowledge and Usage by SMEs

1. Please indicate your knowledge level of the following 4 accounting   Information aspects in your enterprise based on a 5 point scale where(1=no knowledge,5= Very knowledgeable)

    Cash flow Projections/budgeting   a ( )   b ( )

Financial statements (income statement, balance sheet etc.) a ( ) b ( )

Ratio Analysis a ( ) b ( )

Product/Service costing a ( ) b ( )

2. Please indicate your usage level of the following 4 accounting Information aspects in your enterprise based on a 5 point scale where (1=Do not use, 5=extensively used).

Cash flow Projections/budgeting a ( ) b ( )

Financial statements (income statement, balance sheet etc.) a ( ) b ( )

Ratio Analysis a ( ) b ( )

Product/Service costing a ( ) b ( )

D. Accounting Information System used by SMEs

1. Does your firm use any AIS for its financial and economic management?

   (a)Yes ☐ (b) No ☐

2. If Yes which Accounting information System is used by the business?

   a) Manual Accounting System ☐

   b) Computerized Accounting System ☐

E. Extent of Regulation

1. Is your business regulated? Tick appropriately Yes ( ) No ( )

2. If yes briefly state the major regulators.

   _____

   _____

3. Has the requirement of your regulator informed your decision of the choice of the accounting system in place?

   Yes ( ) NO ( )

LIST OF ENTERPRISES IN THE SAMPLE POPULATION

NO	NAME
1.	NAIROBI AVIATION COLLEGE
2	CATE INTERNATIONAL LTD
3	KIMURI HOUSING COMPANY LIMITED
4	NIKMATT LIMITED
5	GIGAWAVE SERVICES LTD
6	MARPHIC KENYA LIMITED
7	LINCHPIN HOLDINGS LTD
8	X-TREME ELECTRONICS LIMITED
9	TIHAN LIMITED
10	SPENTECH ENGINEERING LIMITED
11	VISION UNIFORM DISTRIB. LTD
12	DALLAS SPORTS INT KENYA LTD
13	ROCKFIELDS JUNIOR SCHOOL LTD
14	MONCAL TRAVEL& TOURS LTD
15	DOR DRUGS STORES LTD
16	SINAI VISION INVESTMENT AGENCI
17	THE TRAVELMART LIMITED
18	EUN TEX GARMENTS TRADERS
19	DECIMAL CREATIONS LIMITED
20	LANDMARK FREIGHT SERVICES LTD
21	DIAMOND CHEMICALS LTD
22	GEOSPATIAL SYSTEMS LTD
23	EUN TEX GARMENTS TRADERS
24	NAIROBI MAMBA VILLAGE LIMITED
25	UCHUMI INTERN AGENCIES LTD
26	BEWA WHOLESALERS LIMITED
27	COMPUTERWAYS LTD
28	VERITY ENTERPRISES LTD
29	SONGA OGODA & ASSOCIATES
30	GHOMBA INTERN. AGENCIES LTD
31	SAFE ENVIROMNT CONSULTANCY LTD
32	SECURE HOMES LTD
33	GLOBE AUTOSPARES & ACCESS.LTD
34	DUCTILE GENERAL SUPPLIERS LTD
35	VINBEL INTERNATIONAL LIMITED
36	UCHUMI INTERN AGENCIES LTD
37	KE-RAY TOURS (K) LIMITED
38	JN INVESTMENTS LIMITED
39	LEATHERBERG INT'L COMPANY LTD
40	REGIONAL TRADING COMPANY
41	PROPERTY WORLD LIMITED
42	JAKI HSE DEV & MGT ENT LTD
43	BABS SECURITY SERVICES LTD
44	GATHIMI GENERAL STORE LIMITED
45	VERITY ENTERPRISES LTD
46	VISION INSTITUTE OF PROFF.LTD
47	SAWAVILLA LIMITED
48	GAZA STRIP OILS LIMITED
49	ROADSIDE HAY AND ANIMAL FEEDS
50	GAND ELECT AND H'WARE SUPP LTD