EFFECT OF ELECTRONIC ACCOUNTING ON THE FINANCIAL PERFORMANCE OF COMMERCIAL STATE CORPORATIONS IN KENYA

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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

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DEDICATION

I dedicate this work to the Almighty God granting me victory in my academics and to my family for their encouragement and support throughout my studies.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AIS   Accounting Information System

ANOVA   Analysis of Variance

CSC   Commercial State Corporation

GDP   Gross Domestic Product

GHRIS   Government Human Resource Information System

ICT   Information and Communication Technology

IFMIS   Integrated Financial Management Information System

RBV   Resource Based View

ROA   Return on Assets

ROE   Return on Equity

SPSS   Statistical Package for Social Sciences

TAM   Technology Acceptance Model

UNCTAD   United Nations Conference on Trade and Development

ABSTRACT

The objective of this study was to determine the effect of electronic accounting on financial performance of commercial state corporations in Kenya. The theories covered are; the resource based view theory of the firm, the diffusion of innovation theory and the technology acceptance model. A descriptive cross-sectional research design was employed in this study. The population of the study comprised of the 54 commercial state corporations operating in Kenya as at 31st December 2017. The study used both primary and secondary data. Secondary data was obtained from the financial statements and other annual published reports for the five-year period between 2013 and 2017. The primary data was collected by use of structured questionnaires using the Likert Scale. The targeted respondents in this study were principal accountants of the commercial state corporations or their representatives. The researcher administered the questionnaire to one respondent in each commercial state corporation giving a total of 54 questionnaires. The questionnaire consisted of open-ended and close-ended questions. The SPSS software version 22 computer software was used in the analysis since it's more user-friendly and examined the descriptive, correlation and regression analyses. In descriptive statistics, the study used mean, standard deviation and scatter plot. In inferential statistics, the study used multivariate regression analysis to determine the relationship between the study variables. The study concluded that electronic accounting has a positive effect on the financial performance of commercial state corporations. Specifically, the study concluded that electronic accounting, firm liquidity and firm size have a positive effect on the financial performance of commercial state corporations.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Having sound monetary administration and announcing in the general population part is a critical patron in accomplishing more prominent straightforwardness, responsibility, financial duty and, thus, enhanced execution (Kragbe, 2012). Government authorities and chose pioneers have progressively come to understand that open organizations must use Information and Communication Technology (ICT) with the end goal to upgrade the business forms in people in general part (Ngugi and Mugo, 2012). This is accomplished through electronic exchange handling, or, in other words of business exchanges by PCs associated by PC systems (Bernstein and Newcomer, 2009). Electronically accounting has become a cost effective, speedy, and reliable method of conducting business in the public sector that is expected to improve financial performance of institutions (Wimmer, Chappelet, Janssen & Scholl, 2010).

This study's theoretical foundation is built on the resource based view theory of the firm, technology acceptance model and the diffusion of innovation theory. According to the Resource Based View (RBV) theory of the firm, performance is centered on how the resources and capabilities controlled by a firm enable it to acquire competitive advantage edge. The resources that are held by a commercial state corporation together with the technological innovations will have an extensive impact in the generation of improved performance. Technology Acceptance Model (TAM) clarifies the way clients embrace and make use of an innovative idea. TAM will be

applied in this study to establish how technology acceptance influences electronic accounting in commercial state corporations. Diffusion of Innovation refers to the communication of an idea which is considered to be novel to the members of a social system through certain preferred channels. Innovations have to gain acceptability in a wide area in order to be sustainable. This theory has guided the study of the adoption of various technological innovations in businesses.

The Kenyan government was first involved in the technology world in mid 1970s with establishment of IBM computer frameworks to process population census data (Bon & Mustafa, 2013). From that point forward, more effort has been made to modernize the public organizations through technological innovations so as to deliver their mandate and offer efficient services. Some of the recent Kenyan government successful information technology projects are; iTax by the Kenya Revenue Authority which is an online system that enables citizens and corporates in accessing all their necessary tax returns, IFMIS which is an online public financial management system. Government Human Resource Information System (GHRIS) and eVisa are other Government of Kenya systems being used (GOK, 2016). The current study will investigate how electronic accounting influences financial performance among commercial state corporations in Kenya.

1.1.1 Electronic Accounting

Electronic Accounting also referred to as E-Accounting is a terminology used to define an accounting system which utilizes computer technology to capture and process financial data within an organization (Yilmaz, Alpkan & Ergun, 2005). E-accounting is the application Internet and online technologies for accounting purposes within the business. Just the way e-mail is an electronic version of traditional mail, e-

2

accounting is "electronic enablement" of accounting processes that are more paper-based and manual. The term E-Accounting was founded by Joanie Mann at InsynQ one of the co-founders of the ASP industry and later in 1998 by InsynQ's hosted QuickBooks offerings under InsynQ Accounting Solutions banner which was preceded by CPAASP (Goh, 2002).

Literature has gone deeper and described E- accounting using two basic terms: Accounting Information System (AIS) and computer-based accounting system. According to Stefanou (2006) although accounting information system do not contain computing, the computerization of the accounting function, the term AIS mainly means computer-based AIS. In this research the terms financial information system and E- Accounting basically relate to any accounting system which undertakes its information system tasks by means of Information and Communication Technology (ICT).

The objectives of launching electronic accounting include performance improvement, cost reduction, wider coverage, customer convenience and revenue growth (Chau & Lai, 2003; Bradley & Stewart, 2002). From the clients's perspective, e-accounting intervenes and facilitates a convenient efficient and accurate transactions which effects online transactions by managing personal finances in a 24 hours a day and 365 days annually without doing to the firm and from any location (Speece & Rotchanakitumunai , 2003). The accounting information is tasked with collecting and recording of information and data identified with exercises that have monetary ramifications on associations and upkeep, preparing and correspondence of data to outer and inward partners (Stefanou, 2006).

1.1.2 Financial Performance

The extent to which the firm's financial objectives have been attained is described as financial performance (Yahaya & Lamidi, 2015). The financial performance of a company defines the firm's efficiency in utilizing its assets to undertake various business activities so as to generate revenues. Financial performance also shows the firm's general well-being with regards to financial stability. The competitiveness of a firm could also be gauged by comparing its financial performance with those of others across the same industry. Financial performance is, in summary, is a crucial objective that firms especially the profit oriented firms desire or aim at to achieve (Kajirwa, 2015).

Institution effectiveness is measured by firm performance and its capacity to accomplish its objectives as far as profits and revenues are concerned (Ongore and Kusa, 2013). Financial performance affects the health of the organization and its overall survival in the long run. High performance is an indicator of the efficiency and effectiveness of the management in utilizing the resources of the company which is detrimental to the economy in the long run (Naser and Mokhtar, 2004). Financial performance provides financial information to the various administrative levels of unity for the purposes of economic planning, control and decision-making. It also shows the degree of the contribution of the company in the process of social and economic development through producing the highest level of revenue at the lowest possible cost and waste disposal and loss factors in effort, time and money, which are beneficial to the society and economy at large.

Financial performance can be measured using different techniques which must all be consolidated. Ngatia,(2012) identified Return on Assets (ROA),asset age, firm size,

Return on Equity (ROE) and return on sales as micro finance performance measures. Carter *et.al* (2010) measured financial performance using Tobin's Q and ROA whereas Wang and Clift (2009) used ROA and ROE. The two most well-known measures of productivity are ROA and ROE; hence, this study will compute the financial performance of publicly listed companies using the two measures. ROA shows the company's profitability is in relation to its total assets and ROE measured the net income attained as a percentage of equity of the shareholders. It measures the profitability of the company the amount of profit generated through utilization of the shareholder's resources. ROE is useful for comparison of the firm's profitability with those of others in the same sector. High ROE implies that the firm is efficient the firm is making use of those funds (Mwangi & Murigu, 2015).

1.1.3 Electronic Accounting and Financial Performance

One of the aims of e-accounting, according to Conrad (2013), is to create a closer interface between government and citizens (G2C), government to government or inter-agency relationships and government and business enterprises (G2B), (G2G) more friendly and convenient. Rodin-Brown (2008) argues that e-accounting uses standard data classification to record financial events, exhibits common processes for same transactions, exhibits internal controls for data entry, transaction processing, transaction reporting and a system design which eliminates data entry duplication. However, an assessment report by KPMG (2012) accounting, recording and reporting systems are associated with e-accounting system errors and compliance procedures that damage the government's credibility with regard to its actual capabilities in the management of financial resources. The assessment also adds that the problems in the preparation of accurate end-year accounts are primarily caused by accounting

indiscipline and incomplete data. E-accounting data are supported with traditional data manual backups do develop correct and accurate final accounts.

McKinney (2004) implies that the advantages of e-bookkeeping could be contended to be significant. First, the improved financial transaction processes and recording facilitate efficient and prompt access to accurate financial data. Secondly, e-accounting improves financial controls by continuously facilitating an updated view of expenditure and commitments. Upon making the commitment, all the transaction processing systems should be traced by the system right from release of the budget, commitment, purchasing, payment, and bank statements' reconciliation and accounting of expenditure. This is likely to improve transparency and in effect financial performance of the involved firm.

Conrad (2013) discussed that e-accounting aims at enhancing services delivery to citizens, businesses, and other stakeholders, and that it encompasses internal and external dimensions and despite the challenges faced, as noted by Picci (2005), most people attest that the solution to poor public administrations is the adoption of new information technology as its adoption has a positive influence on the society and economy thereby improving stakeholder confidence. Mullen and Horward (2004) observed that the rapid diffusion of e-commerce has placed existing moral behaviour and norms under pressure and could influence the successful implementation of successive eGovernment visions. They noted that the 2003 review of 34 IFMIS projects funded by the World Bank over 15 years estimated that only 6 percent of the systems survived after donor funding ceased.

1.1.4 Commercial State Corporations in Kenya

The exact meaning of commercial state corporations is not definite (Wamalwa 2003). According to the State Corporation Act Cap 446 (1987) ,a parastatal is defined as a state corporation (SC) established by or under the Act of parliament to play out the capacities determined in a specific order; and whose a bigger percentage of the shares are owned by the government. The corporations may be in form of a bank, a financial institution or any organization formed under the Act (Government of Kenya, 1987). The government of Kenya sessional paper number four (GoK -Sessional Paper no 4, 1991) stipulates that state owned corporations (Parastatals) are formed for many reasons including; promoting socioeconomic development, to enable more people to get involved in the economy, to bring equal economic development in all the regions of the country among others.

According to the GoK-Sessional Paper No. 10, (1965) CSCs were mainly formed to encourage more Kenyans in participating in the economy since most institutions were by then still owned by the white settler, a process that was called indigenization of the Kenyan economy. This therefore followed a series of formation of the SOCs whose number rose to 240 by 1995. As at 31st December, 2017, there are 54 CSCs in the country after a series of restructuring them to place them in line with the countries developments. The importance of state owned corporations cannot be overestimated: in Kenya, commercial state owned corporations contribute fifteen percent of its revenue. The value of the state owned corporations is in their ability to offer affordable, accessible and standard goods and services in important sectors such as energy, health and transport. They require massive capital input private sectors cannot

afford. State owned corporations if well managed can significantly improve the citizens' welfare as well as promote inclusive growth.

Theoretically, commercial state owned corporations are created for the citizens to benefit. In reality though, state owned corporations are only accountable to the government in power at the expense of the common citizens. The fundamental problem with Kenyan CSCs is in their poor accounting procedures, poor internal control structures, mismanagement of funds, and lack of close monitoring from the relevant regulatory body (Gok-Sessional Paper No. 4, 1991). This has led to overburdening of the Government, in the year 2016 alone, the government spent Ksh. 23.1 billion on Kenya Airways, Uchumi Supermarket and Mumias Sugar Company to help them in restructuring following a series of loss making by state owned corporations (CBK, 2016). The current study sought to investigate whether electronic accounting plays a role in improving financial performance of commercial state corporations.

1.2 Research Problem

Public finance management practices had been characterized by challenges in revenue mobilization and lack of transparency in its use and accountability. The aspect of misappropriation of funds and corruption had been rampant in many developing countries. This led to governments of these countries be unable to achieve their intended outputs as well as partial delivery of the objectives due to funds misuse, wastage and inefficiency in managing resources .In government institutions, e-accounting is known as the computerization of financial management activities in the public sector, from revenue collection, budget automation, to accounting, reporting

and auditing, with the assistance of an integrated financial management system for all public sector operations (Efozie, 2010). E-accounting is expected to give accurate, timely and consistent and relevant financial information for the purpose of management and decision-making functions which will lead to improved financial performance.

Commercial state corporations in Kenya have passed through various reforms through government session papers and task forces to increase their efficiency, effectiveness in the performance of their duties and to limit the financial burden of the corporations on the public coffers. Forces of change that have had an immense impact on the performance of state corporations include mainly technological advancement (Oyeyinka, 2006). Research demonstrates that a significant number of government corporations need appropriate advancements in technologies, however, efforts to enhance technology use in public organizations is not successful (Lytra et al., 2008). Fundamentally, to survive and succeed in competitive global environment, commercial state corporations need to be innovative by regularly adopting electronic platforms such as e-accounting so as to improve their financial performance (Robbins & Coulter, 2009).

From past studies, Wescott, Bowornwathana and Jones (2009) noted that IFMIS can improve accounting and reporting systems and facilitate recurrent/capital budget integration, in any case, just if the nation's records and spending grouping is changed and the framework is properly staged and adjusted to a nation's ability to look after it. Kragbe (2012) undertook a study to establish the impact of fiscal probity on public financial management in Liberia and their study established a strong positive impact of financial probity on public financial management. Ahern and Beschel (2012)

reported that while there is some small successes to-date, sophisticated e-accounting projects have not been successful. Hendriks (2012) did a research on e-accounting by looking at the various steps involved in the adoption by the public sector of South Africa. Problems like lack of support from top management, shortage of resources for capacity building, lack of capital and organizational and technical shortcomings increase risks to the successful adoption of e-accounting.

Locally, Mobegi (2009) carried out a survey of the impact of e-accounting as a tool for achieving supportable money related administration in public sector. This study showed that the government of Kenya had highly gained from the benefits of an automated accounting system which is faster and reliable compared to the former stand-alone type of applications. Ngugi and Mugo (2012) sought to establish how effective ICT adoption is on procurement process of health care supplies in the public sector. The investigation found that ICT reception influenced acquisition process at Kenya government services as it were. Wamuyu (2013) on the effect of IFMIS on open budgetary administration and administration conveyance in picked government services reported significant enhancement in both open monetary administration and administration conveyance in government services in Kenya. From the previous, in spite of the fact that there are connected examinations done both locally and universally on e-accounting, these investigations have not concentrated on the impact of e-bookkeeping on money related execution of business state companies in Kenya and this is the gap the current investigation will leverage on. The study attempts to answer the research question; what is the effect of electronic accounting on financial performance of commercial state corporations in Kenya?

1.3 Objective of the Study

The objective of this study was to determine the effect of electronic accounting on financial performance of Kenyan commercial state corporations.

1.4 Value of the Study

Policy makers maybe enlightened by the study findings, by showing them how electronic accounting influence financial performance of public institutions and thereby identify mechanisms to be utilized by the regulators to improve performance of such firms which form the framework for achievement of economic growth and development goals of vision 2030. The study may also be geared towards helping firms which are yet to adopt electronic accounting. The management of these firms may be able to determine the electronic accounting suitable for them to enhance their financial performance.

Findings from the study may also form a foundation for implementing an effective electronic accounting practice. The study would help the Government of Kenya in formulation and implementation of policies for operational efficiency. Through the results of this study, commercial state corporations would find the benefits realized and how more benefits can be realized for optimal financial performance.

The study's findings will be used by future researchers, students and scholars who may want to undertake studies in the similar or correlated field as reference. The study will also be beneficial to researchers and scholars in the identification of further research areas on other subject matters by highlighting related topics that need further studies and undertaking a review of the empirical literature to establish the study gaps.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter reviews theories that form the foundation of this study. In addition, previous empirical studies that have been carried before on this research topic and related areas are also discussed. The other sections of this chapter include determinants of financial performance, conceptual framework showing the relationship between study variables and a literature review summary.

2.2 Theoretical Framework

This presents review of the relevant theories on electronic accounting. The theories covered are; the resource based view theory of the firm, the diffusion of innovation theory and the technology acceptance model.

2.2.1 Resource Based View Theory

This hypothesis contends that maintained upper hand and enhanced execution by a firm might be acknowledged by misusing profitable, uncommon, non-substitutable and incompletely imitable assets (Hart, 1995). A significant asset or heap of assets enables a venture to bridle openings and diminish dangers in its condition. An uncommon asset or heap of assets is one that isn't controlled by countless. A non-substitutable asset or heap of assets is one for which a proportional asset can't undoubtedly be made by contending firm or firms. An incompletely imitable asset or heap of assets is one that is hard to imitate or one that can be repeated at a critical cost

(Hart, 1995). Ignorant (1983) records these assets to incorporate all abilities, resources, hierarchical procedures, learning and data controlled by a firm.

Assets can just extend the firm esteem in the event that they are utilized in a way that thinks about the dynamic outside business condition (Sirmon, Hitt & Ireland, 2007). The assets can be sorted as substantial or elusive (Mentzer, Min & Bobbitt, 2004). Wagner (2006) contends that technological innovations are defined as the desirable practices acquired from efficient technologies. Desirable practices will support the technological functions in the delivery of services of high quality and sustain superior performance therefore technological innovation systems are assets that fall well inside RBV in light of the fact that it prompts enhanced administration conveyance and execution.

This investigation is of the view that larger amount of holding between mechanical advancements and maintainability is straightforwardly connected with an association's execution and productivity

. Under RBV by exploiting technological innovation practices such as e-accounting, commercial state corporations build capabilities for improved financial performance. The theory is applicable to the study since it recognizes organizational processes, close working relationships and knowledge sharing as resources that could be leveraged to attain improved organizational financial performance.

2.2.2 Diffusion of Innovation Theory

Diffusion of Innovation refers to the communication of an idea which is considered to be novel to the members of a social system through certain preferred channels (Rogers, 2003). The spread of new ideas is impacted by four variables which are: the

actual innovation, social systems, time and communication channels. Of utmost importance is innovations have to gain acceptability in a wide area in order to be sustainable. According to Fisher (1971), adoption of innovation when mapped in the long run forms an S shaped curve. This curve begins with the innovators, early adopters, early and late majority and finally the laggards.

How successful an innovation will be stems from the resolutions put forward by the social systems through five defined steps which are; knowledge: such as innovation awareness and continuous learning regarding it; persuasion which means willingness to have detailed knowledge concerning the innovation; resolution, that is, consideration of the advantages and disadvantages of the innovation and choice of whether to adopt the innovation; application which is an examination of how useful the innovation will be and finally confirmation, which is eventual decision on the continual use of the innovation (Rogers, 2003). The diffusion of innovation model though falls short of explaining the importance of the capability and the dynamics of different inter-connected trading partners and the influence of power between trading partners (Hart & Saunders, 1997).

Rogers (1995) describe communication channel as a critical contributor to the success of adoption of new innovation in the organization. As an effective communication channel creates prior awareness of the new technology, the trading partners need to work together to ensure the success of technological innovations such as e-accounting. This will be determined by the inter-connected industry the organization is in and how influential that organization is to its trading partners (Lundblad, 2003). This theory has guided the study in respect to the adoption of various technological innovations in businesses.

2.2.3 Technology Acceptance Model

This model clarifies the way clients embrace/acknowledge and utilize an innovation. TAM was found in 1989 by Davis. This model asserts that once a client is given an alternative innovation, some aspects influence their choices on the means and time of utilization. This incorporates its apparent convenience and seen helpfulness. TAM embraces settled causal chain of genuine conduct convictions, goal and disposition. This was produced by social clinicians from the hypothesis of contemplated activity. In Davis' study, two vital parts are recognized; seen convenience and seen helpfulness (Davis, Pallister & Foxall, 2002).

In other studies regarding technology, TAM is widely adopted and greatly contributes to the development of a prediction of an individual's usage of technology (Fishbein & Ajzen, 2010). Perceived ease of use influences the perceived usefulness and the intention for adoption (Davis, 1989). Despite TAM being an important source for theoretical framework in the study of adoption and use of technology it has many limitations which include the initial purpose designing the model which is parsimony and generality (Dishaw & Strong, 1999), not taking into consideration non-organizational setting of the organization (Davis & Venkatesh 2000), and ignoring the factors which moderate the adoption of ICT (Sun & Zhang, 2006). This theory has affected research in acceptance of technology. In this exploration, TAM will be utilized to determine how the accessibility of electronic accounting impacts the utilization of technological innovations in government commercial state corporations.

2.3 Determinants of Financial Performance

There are a number of determinants of performance in firms. These factors usually cut across almost all the sectors in the economy. They include electronic accounting, company's liquidity position, management efficiency, firm size and macro-economic variables.

2.3.1 Electronic Accounting

E-Accounting Systems adopts the same concept as journals, reports ledgers and statements that were present in the manual system. In the computerized systems, all the posting functions and other basic operations are consolidated into a "behind the scenes" system. Financial statements and reports are also easily generated which increase management review performance. Therefore, E-Accounting System can be described as a therefore a computer based system that integrates the accounting concepts and principles with the information system concept for the recording, processing, analysis and production of financial information that could be used to make economic decisions (Gelinas et al., 2005).

Baren (2010) posits that e-accounting systems are vital to businesses in different ways. Computers usage saves on time, reduces costs, and ensures that all the financial and business information is well organized. It also simplifies the process inputting relevant accounting information. E-Accounting Systems reduce audit expenses as records are neat, up-to-date and accurate and reduce staff time preparing accounts. Better utilization of resources and time; cash flow need to be improved through better debt collection and inventory control. Transactions fed into the system is processed

and posted correctly and that the system facilitates financial reports to be timely nade and accesses by external users.

2.3.2 Liquidity

Liquidity is defined as the degree in which an entity is able to honor debt obligations falling due in the next twelve months through cash or cash equivalents for example assets that are short term can be quickly converted into cash. Liquidity results from the managers' ability to fulfill their commitments that fall due to policy holders as well as other creditors without having to increase profits from activities such as underwriting and investment and as well as their ability to liquidate financial assets (Adam & Buckle, 2003).

According to Liargovas and Skandalis (2008), liquid assets can be used by firms for purposes of financing their activities and investments in instances where the external finance is not forthcoming.). Firms with higher liquidity are able to deal with unexpected or unforeseen contingencies as well as cope with its obligations that fall due in periods of low earnings. Almajali et al., (2012) noted that firm's liquidity may have strong impact on insurance companies' financial performance; therefore, he suggested that insurance companies should aim at increasing their current assets while decreasing their current liabilities. However, Jovanic (1982) noted that an abundance of liquidity may at times result to more harm. He therefore concludes that the effect of liquidity on financial performance of firms is ambiguous.

2.3.3 Management Efficiency

Management efficiency is a key internal factor that qualitatively measures and determines the financial performance of a firm. The ability of the management to

efficiently utilize the resources of the firm, their ability to maximize revenue and their ability to reduce the cost of operation of the firm are some of the ways of assessing the management quality. Management efficiency is a qualitative measure and determinant of financial performance and it can be assessed by looking at the quality of the staff, the effectives and efficiency of the internal controls, the discipline within the organization and the effectiveness of the management systems (Athanasoglou, Sophocles & Matthaois, 2009). The quality of the management has an influence on the level of operating expenses which affects the bottom line of a company hence management efficiency significantly affects the financial performance of commercial banks (Kusa & Ongore, 2013).

2.3.4 Firm Size

Burca and Batrinca (2014) asserts that the relationship existing between size and financial performance is positive in the sense that more resources are available in larger firms, better risk diversification strategies, complex information systems and are able to manage expenses well compared to small firms. This may have an impact on the financial performance of insurance companies in different ways for example large firms may be advantaged compared to smaller firms as they can be able to exploit economies of scale and scope and as such they are more efficient in their operations and as a result reap higher level of profits.

According to Almajali et al., (2012) the firm's size may have an impact on its financial performance. The relationship between performance and size is positive due to the fact that there are efficiencies in operating cost that result to increased output and economies of scale. Insurers of large companies are able to diversify their risks hence are able to quickly respond to any changes that may occur in the market. Yuqi

(2007) noted that in firms that are exceptionally large, there could be a negative performance in relation to its size due to bureaucratic and other costs implications.

2.3.5 Age of the Firm

According to Sorensen and Stuart (2000), company's age may have an effect on firms' performance. They further noted that older firms may have organizational inertia which tends to make them inflexible which may result to their inability to appreciate the changes that occurring in changing environment. However, Liargovas and Skandalis (2008), noted that older firms may have more skills because they have been in operation longer thus have more experience having enjoyed the benefits that come from learning and aren't prone easily to the liabilities that result from newness therefore they tend to have performance that is superior as compared to newer firms.

According to Loderer and Waelchli (2009), the relationship that exists between the age of a company and profitability is positive. However, it has also been observed that firm's performance may at times decline as companies grow older due to the fact that old age may lead to knowledge, abilities and skills being obsolete thereby resulting to decay in organizations. Agarwal and Gort (2002) this may explain why some older companies are usually taken over.

2.3.6 Macro-economic Factors

Many studies have been undertaken to determine the effect of macroeconomic factors on performance of companies. The factors include but not limited to monetary aggregates, rate of interest, investment level in the economy, consumer price index, producer price index, GDP growth, inflation, financial depth and the degree of market efficiency. Kwon and Song (2011) carried out a research on mergers the Korean

market. He found out that the global financial crisis has a notable negative effect on the cumulative abnormal returns of the acquiring company when a merger announcement is made. He also stated that it may be possible that investors are aversive to large outflows of cash during a period of crisis. Flannery and Protopapadakis (2002) pointed out that inflation and money supply are well documented as the two macro-economic factors that have a significant effect on shareholders returns.

2.4 Empirical Review

Various empirical reviews both locally and internationally to support the relationship between electronic accounting and financial performance, but these studies have addressed different aspects and contexts.

2.4.1 Global Studies

In their study, Al-Smadi and Al-Wabel (2011) used the survey research designed to examine the impact of IT on the Jordanian banking sector. Their study entailed a survey of 15 Jordanian financial institutions between the year two thousand and two thousand and ten. The accounting data was used to gauge the performance of banks as well as regressed on relevant variables using the OLS regression. Their study reveals that the use of IT had a positive influence on the general performance of Jordanian banks.

Isidore (2012) researched how coordinated money related administration data framework upgrades monetary basic leadership in two contextual investigation associations in Tanzania. The sample estimate comprised of 34 respondents drawn from 204 representatives. The research design adopted was descriptive survey, a

purposive sampling method was drawn. The primary data was collected using questionnaires and secondary data was collected using existing literature and journal articles. The correlation analysis and descriptive statistics were applied in data analysis. The results revealed that financial managers utilize IFMIS tools for generation of financial planning information which increases the effectiveness of decision making in finances and that managers make capital budgeting decisions based on information retrieved from IFMIS.

Dener and Young (2013) investigated the effect of FMIS on distributing open spending information and distinguish potential upgrades in spending straightforwardness, and give some direction on the viable utilization of FMIS stages to distribute open spending information. The outcomes uncovered 20 key and 20 educational markers assembled from people in general fund sites of 198 economies to demonstrate the administration sites status on the distribution of open spending information from FMIS. The findings revealed that regardless of the excesive spread of 176 FMIS stages utilized by 198 governments comprehensively, great practices in displaying open spending information from solid FMIS arrangements are obvious in just 24 nations (12%).

A study carried out in Nigeria by Adomako (2013) about rural banks, identified the following problems associated with using manual accounting systems: The results revealed that the customers wasted time in ling queues as processing customer information consumed a significant amount of time. This was associated with high labor costs which were manifested inform of salaries. The bank is more prone to both omission and commission errors.

Krishna (2015) used descriptive research design to ascertain effects of Information Technology (IT) on banking industry in India. She examined the various technological developments within the Indian Banking sector that have been attributed to ICT in 2015 in form of Telephone banking, ATMs, Mobile and on-line banking. The studies reveal that use of ICT results into lower costs, however, the impact on profitability is constantly inconclusive, due to the possibility of effects that results from a huge demand of skilled labour, trustworthiness of the competition in financial services as well as changes in the information system.

2.4.2 Local Studies

A study by Kimwele (2011) investigated the factors influencing effective implementation of IFMIS among the Kenyan government ministries since 2005. The study covered 42 ministries and sample of 30 accountants was used. Four factors were studied namely staff resistance, system complexity, skills and capacity of the user and management commitment. The findings revealed that effective use of the system is largely affected by resistance and sabotage. It was also noted from the study that the top management has failed in inspiring its users thus management support is lacking. It was therefore concluded that IFMIS was ineffective in the achievement of financial probity in Kenya.

Wamuyu (2013) investigated the impact of IFMIS on the management of open budgetary assets and administration conveyance in picked government services detailed huge enhancement in both open money related administration and administration conveyance in government services in Kenya. This suggests that the nation has achieved some in terms of money related honesty in people in general area owing to the introduction of IFMIS.

Okiro (2013) explored the effects of Mobile and Online banking in the Kenyan market. The research work used descriptive and qualitative study design, which was consistent with the objective intended in establishing the effects of e-banking infrastructure in the Kenyan institutions. The study population was 61 commercial institutions in Kenya. The study concluded that Internet banking has enhanced financial performance for banks. Mobile banking besides being bedevilled by many challenges still positively contributes to financial performance.

A study by Conrad (2013) evaluates the implementation of IFMIS by the national government of Kenya and explored the challenges or constraints in the adoption of IFMIS in the national government and the drivers of IFMIS adoption. The findings revealed that the greatest challenge received was the exchequer spending arrival of assets not harmonizing with the manual finances discharge process. This implies that there may still be potential gaps in the achievement of financial probity through the use of IFMIS.

Cherotich and Bichanga (2016) studied the factors influencing effective implementation of integrated financial management systems, in different county governments of Kenya. This study aimed at examining technological infrastructure, how change management, top management commitment and human capital development affected the effective implementation of IFMIS by the county governments. The scope of the study was five counties namely: Bomet, Kericho, Narok, Nyamira and Kisii. The study used a descriptive research approach. A census of the 180 county employees who use IFMIS in the five counties was undertaken. The findings revealed that most counties did not manage change to IFMIS effectively; the technological infrastructure for the roll out to the sub counties had not been availed;

the political class is not supportive of IFMIS; some aspects of human capital development had not been addressed and the counties have not allocated enough resources towards of IFMIS.

2.5 Conceptual Framework

Conceptual framework is a model in which illustrative categories are methodically put in an expansive structure of express suggestions (explanations of connection between at least two observational properties), to be acknowledged or dismissed A theoretical structure is a model in which distinct classes are deliberately set in a wide structure of unequivocal recommendations (proclamations of connection between at least two experimental properties), to be acknowledged or dismissed (Chave at al., 2005). A number of studies have identified the factors that affect the financial performance of public institutions. The conceptual framework was formulated to disclose the relationship between financial performance and its explanatory variables.

The conceptual framework is a diagrammatic representation of how the factors identified relate with each other. The elements given consideration in this case electronic accounting and financial performance. The independent variable is electronic accounting as measured by a likert scale, liquidity as measured by current ratio and firm size as measured by natural logarithm of total assets. Financial performance is the dependent variable which the study sought to explain.

Figure 2.1: The Conceptual Model

Independent variable   **Dependent variable**
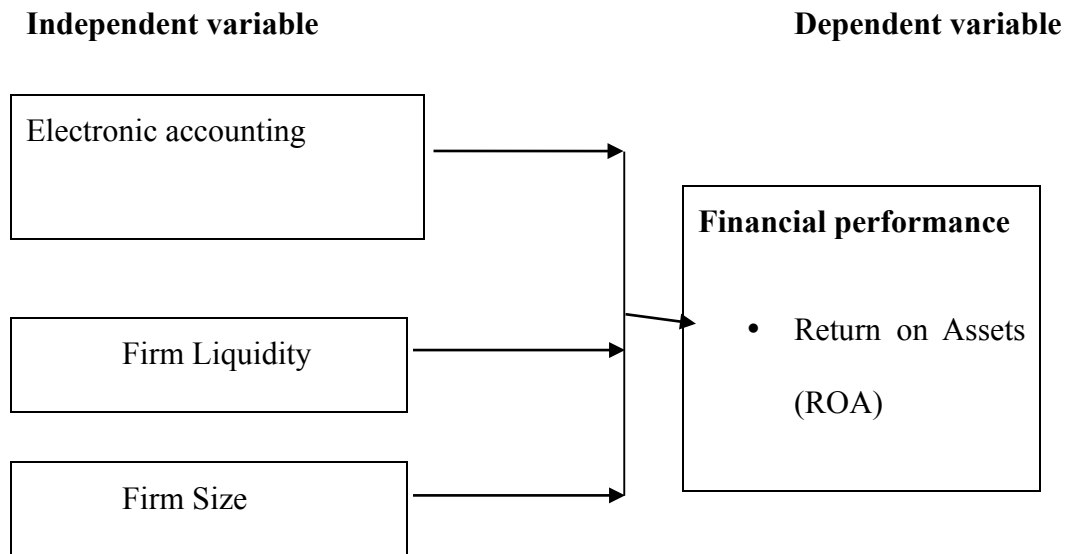
Source: Researcher (2018)

2.6 Summary of the Literature Review

Different theoretical models have attempted to explain the concept of electronic accounting. The study has utilized three theoretical frameworks which are: the resource based view theory of the firm, the diffusion of innovation theory and the technology acceptance model. The major determinants of financial performance have also been elaborated in this section. Various empirical reviews have been undertaken both globally locally on e-accounting and financial performance. These studies' results have also been explored in this chapter.

The above literature review indicates that little research has been done in the establishment of the relationship between e-accounting and financial performance thus more studies need to be done. This study seeks to clearly demonstrate the association between e-accounting and financial performance of commercial state corporations after which the conclusions will be dispelled after obtaining empirical

evidence from the research. Local studies done are not conclusive in their findings and it is this gap that the current study intends to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In order to determine the effect of electronic accounting on financial performance of commercial state corporations, a research methodology was necessary to outline how the research was carried out. This chapter has four sections namely; research design, data collection, diagnostic tests and analysis of data.

3.2 Research Design

A descriptive cross-sectional research design was employed in this study to investigate the relationship between electronic accounting and financial performance of commercial state corporations in Kenya. Descriptive design was utilized as the researcher is interested in finding out the state of affairs as they exist (Khan, 2008). This research design was appropriate for the study as the researcher is familiar with the phenomenon under investigation but want to know more in terms of the nature of relationships between the study variables. In addition, a descriptive research aims at providing a valid and accurate representation of the study variables and this helps in responding to the research question (Cooper & Schindler, 2008).

3.3 Population

Burns and Burns (2008), said that population refers to the characters of interest upon which the study seeks to draw deductions. The population of the study comprised of the 54 commercial state corporations operating in Kenya as at 31st December 2017. The research was a census study since the population is relatively small. The list of

commercial state corporations is as shown in Appendix III.

3.4 Data Collection

The study used both primary and secondary data. Secondary data was obtained from the financial statements and other annual published reports for the five-year period between 2013 and 2017. The primary data was collected by use of structured questionnaires using the Likert Scale. The targeted respondents in this study were principal accountants of the commercial state corporations or their representatives. This is because they are involved in the management of the electronic accounting platform and have a broad understanding of the affairs of their organizations.

The researcher administered the questionnaire to one respondent in each commercial state corporation giving a total of 54 questionnaires. They consisted of open-ended and close-ended questions. Close-ended questions were used in the collection of structured responses to allow for the recommendations that are more tangible. The rating of various attributes was tested using the close ended questions which helped in the reduction of similar responses thus more varied responses were obtained. Additional information that missed in the close-ended questions was obtained by the use of open- ended questions. The research instrument was personally administered by the researcher so as to ensure that all the questionnaires were received by the respective respondents and keep a register to ensure that all were returned.

3.5 Data Analysis

The SPSS software version 22 computer software was used in the analysis since it's more user-friendly. The data was inputted into the SPSS and examined using descriptive, correlation and regression analyses. In descriptive statistics, the study

used mean, standard deviation and scatter plot. In inferential statistics, the study use d multivariate regression analysis to determine the relationship between the study variables.

3.5.1 Diagnostic Tests

Linearity uses the mathematical equation $Y=bX$ where c is a constant to show the association between variable X and Y. The linearity test was obtained through the scatterplot testing or F-statistic in ANOVA. Stationarity test is a process where the statistical properties such as mean, autocorrelation and variance structure do not change with time. Stationarity was obtained from the run sequence plot. Normality is a test for the assumption that the residual of the response variable are normally distributed around the mean. This was determined by Shapiro-walk test or Kolmogorov-Smirnov test. Autocorrelation is the measurement of the similarity between a certain time series and a lagged value of the same time series over successive time intervals. It was tested using Durbin-Watson statistic (Khan, 2008).

Homoskedasticity of variance is required for multiple linear regression and it occurs when the variance of the error term is constant over the population while the variance of y is constant and is not dependent on the x's. Otherwise, non-existence of a constant variance of the variance of error term posits heteroskedasticity. Homoskedasticity is graphically evaluated using residual plots where the regression residuals are plotted against the values of the independent variables. If an even pattern about the horizontal axis appears then heteroskedasticity is unlikely. It can also be shown by white test and ANOVA test (Burns & Burns, 2008).

Multicollinearity is said to occur when there is a nearly exact or exact linear correlation among two or more of the independent variables. This was tested by the determinant of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero if there is absolute linear dependence between them and as it approaches to zero then the multicollinearity becomes more intense. Variance Inflation Factors (VIF) and tolerance levels was also carried out to show the degree of multicollinearity (Burns & Burns, 2008).

3.5.2 Analytical Model

The study used the regression model below:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon.$

In which;

Y= Financial performance of Kenyan commercial state corporations as measured by ROA

β_0 = Constant Term

β_i = Beta Coefficient of variable in which measures the change Y to change in i

X_1 = Electronic accounting as measured using a likert scale

X_2= Firm liquidity as measured by the current ratio

X_3= size of the firm as measured by natural logarithm of total assets

ε =Error term

30

3.5.3 Tests of Significance

The researcher carried out parametric tests to establish the statistical significance of both the overall model and individual parameters. The F-test was applied in determination of the significance of the overall model and it was obtained from Analysis of Variance (ANOVA) while a t-test was used to establish statistical significance of individual variables.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter deals with the analysis of data. The objective of the study was to the effect of electronic accounting on financial performance of commercial state corporations in Kenya. The data analysis is in harmony with the objective of the study where patterns were investigated through descriptive analysis, and inferential analysis which were then interpreted and inferences drawn on them.

4.2 Response Rate

Fifty-four questionnaires were distributed to the respondents. Of the 54 questionnaires that were distributed 49 were correctly completed. This shows that the return rate was 90.7%. The high response rate can be explained by the fact that the questionnaires were self-administered.

4.3 Demographic Characteristics

This section provides information relating to the general characteristics of the state corporations. This included the period of use of electronic accounting and the status of electronic accounting in the commercial state corporations.

4.3.1 Period of Use of Electronic Accounting

Seeking to establish the period of time the commercial state corporations had been using electronic accounting, the study found out that most (92%) of the respondents stated that their corporations had been using electronic accounting for less than 5 years, 6% stated that they had used electronic accounting for 6 – 10 years while the

rest 2% stated that they had used electronic accounting for more than 10 years as depicted in Figure 4.1. This can be explained by the fact that most governmental agencies are not responsive to change and also take too much time to effect changes due to high levels of bureaucracy.
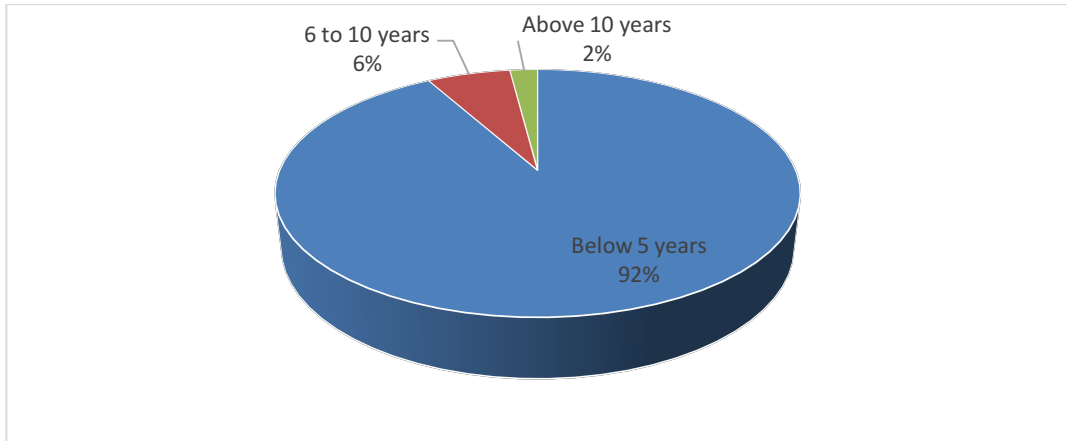
Figure 4.1: Period of Use of Electronic Accounting

4.3.2 Status of Electronic Accounting

The study also explored the relationship between electronic accounting systems in your organization in relation to financial performance. Results showed that most (76%) of the respondents stated that the relationship was poor, 16% stated that the relationship was poor while only 8% stated that the relationship was good as shown in Figure 4.2.
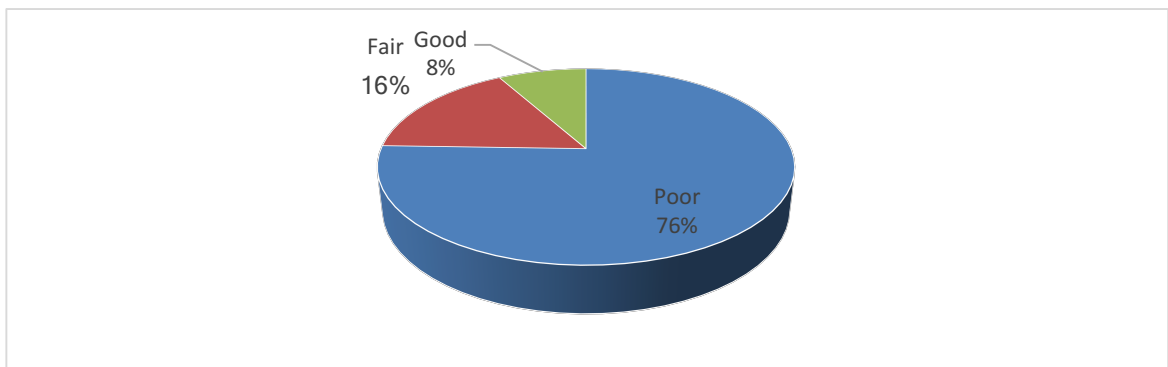
Figure 4.2: Relationship between Electronic Accounting and Financial Performance

4.4 Descriptive Statistics

This section outlines the descriptive results on electronic accounting, financial performance, firm size, liquidity and ROA.

4.4.1 Electronic Accounting

Seeking to establish the extent of application of electronic accounting by the commercial state corporations in their operations, the respondents were asked to give their responses regarding use of electronic accounting. Results are as presented in Table 4.1. The findings showed that 91.9% of the respondents disagreed that operations of their firms are computerized, 89.8% disagreed that their firm has a specific computer (data base) department, 93.8% disagreed that computerization helps to enhance effectiveness and efficiency in their firm while 95.9% disagreed that computerization means keeping proper accounting records in their firm. Results also revealed that 91.8% of the respondents disagreed that E-accounting system aids to mitigate risks experienced in the daily firm operations, 93.8% disagreed that there is co-ordination and quality service delivery in their firms' operation through the use of E-accounting system, 89.8% disagreed that there is effectiveness when using computers to keep accounting records in their firm while 89.8% disagreed that E-accounting system enhances in the reconciliation of bank statements. On a five-point scale, the average mean of the responses was 1.7 implying that majority of the respondents were disagreeing to the statements in the questionnaire; nevertheless, the answers were different as depicted by a 0.9 standard deviation.

Table 4.1: Electronic Accounting

Statement	Strongly Disagree	Disagree	Moderately Agree	Agree	Strongly Agree	Mean	Std Dev
A	42.9%	49.0%	2.0%	2.0%	4.1%	1.8	0.9
B	46.9%	42.9%	2.0%	4.1%	4.1%	1.8	1.0
C	36.7%	57.1%	2.0%	2.0%	2.0%	1.8	0.8
D	55.1%	40.8%	2.0%	0.0%	2.0%	1.5	0.7
E	30.6%	61.2%	6.1%	2.0%	0.0%	1.8	0.6
F	46.9%	46.9%	2.0%	2.0%	2.0%	1.7	0.8
G	49.0%	40.8%	0.0%	8.2%	2.0%	1.7	1.0
H	44.9%	44.9%	0.0%	2.0%	8.2%	1.8	1.1
Average						**1.7**	**0.9**

Where;

A is; The Operations of our firm are computerized

B is; Our firm has a specific computer (data base) department

C is; Computerization helps to enhance efficiency and effectiveness in our firm.

D is; Computerization means keeping proper accounting records.

E is; E-accounting system aids to mitigate risks involved in the daily firm operations.

F is; There is co-ordination and quality service delivery in the firm's operation through the use of E-accounting system.

G is; There is effectiveness when using computers to keep accounting records.

H is; E-accounting system enhances in the reconciliation of bank statements.

4.4.2 Financial Performance

The study was seeking to determine the extent to which the commercial state corporations applies e-accounting to improve financial performance. The respondents

were requested to show their concession to statement regarding the status of financial performance. Results in Table 4.2 show that 89.8% of the respondents disagreed that since the adoption of e-accounting the operating expenses have been minimized, 87.8% disagreed that the corporation's revenue have been rising steadily, 87.8% disagreed that E-accounting system ensures that revenue is collected from all the projects while 93.8% disagreed that E-accounting ensures timely collection of revenue. On a five-point scale, the average mean of the responses was 1.8 which means that majority of the respondents were disagreeing to the statements in the questionnaire; however, the answers were varied as shown by a standard deviation of 0.8.

Table 4.2: Financial Performance

Statement	Strongly Disagree	Disagree	Moderately Agree	Agree	Strongly Agree	Mean	Std Dev
A	34.7%	55.1%	4.1%	4.1%	2.0%	1.8	0.9
B	38.8%	49.0%	8.2%	4.1%	0.0%	1.8	0.8
C	42.9%	44.9%	8.2%	0.0%	4.1%	1.8	0.9
D	46.9%	46.9%	4.1%	0.0%	2.0%	1.6	0.8
Average						**1.8**	**0.8**

Where,

A is; Since the adoption of e-accounting the operating expenses have been minimized

B is; The corporation's revenue has been rising steadily

C is; E-accounting system ensures that revenue is collected from all the projects

D is; E-accounting ensures timely collection of revenue

4.4.3 Return on Assets

The fiqure 4.3 below shows the ROA of commercial state corporations for the period 2013 to 2017. The figure indicates that the ROA for the 54 corporations used in the study over the 5 year period decreased gradually between 2013 to 2015 then increased gradually between 2015-2017. This is an indicator that the firms perormance was improving over time.
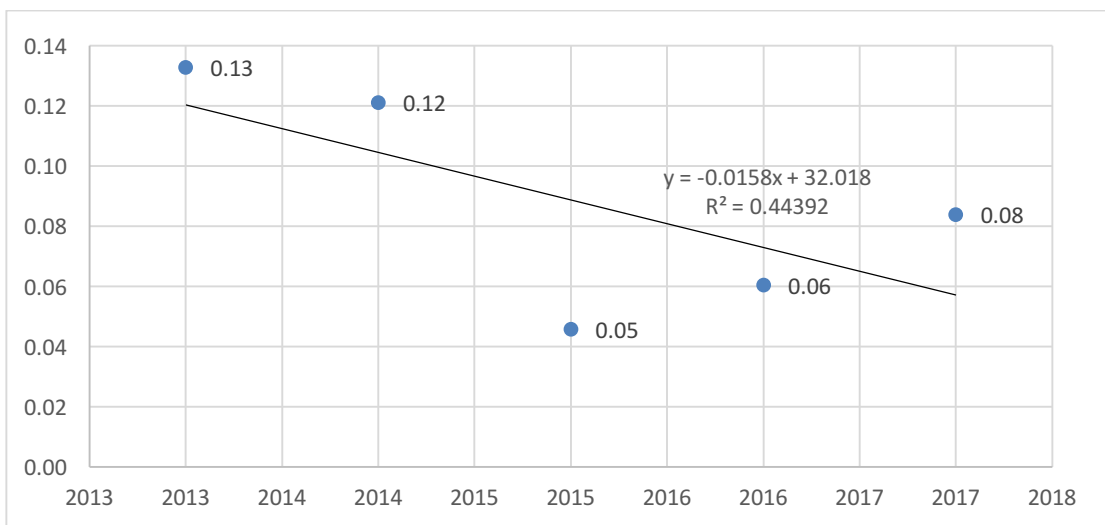
Figure 4.3: Return on Assets

4.4.4 Liquidity

The fiqure 4.4 below shows the liquidity of commercial state corporations for the period 2013 to 2017. The fig. shows that the firm liquidity for the 54 corporations used in the study over the 5 year period declined between 2013 to 2014 then increased between 2014 – 2015 and later declines gradually in the year 2016 and 2017. This implies that the corporations current asset base has been decreasing over time while their current liabilities increased.
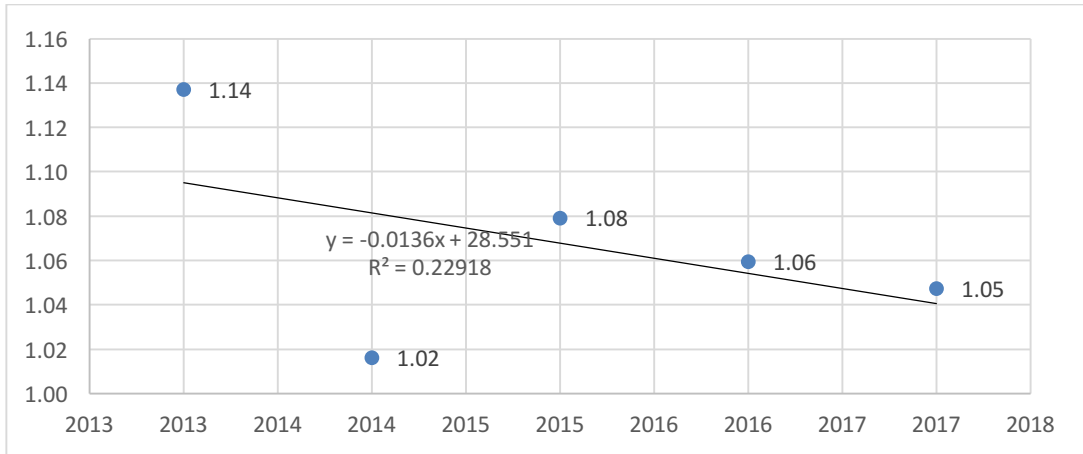
Figure 4.4: Firm Liquidity

4.4.5 Firm Size

The fiqure 4.5 below shows the firm size of commercial state corporations for the period 2013 to 2017. The fig. shows that firm size for the 54 corporations used in the study over the 5 year period increased between 2013 – 2016 and later declines in the year 2017. This can be explained by the economic slow down which resulted from the general elections in the country during 2013 and 2017.
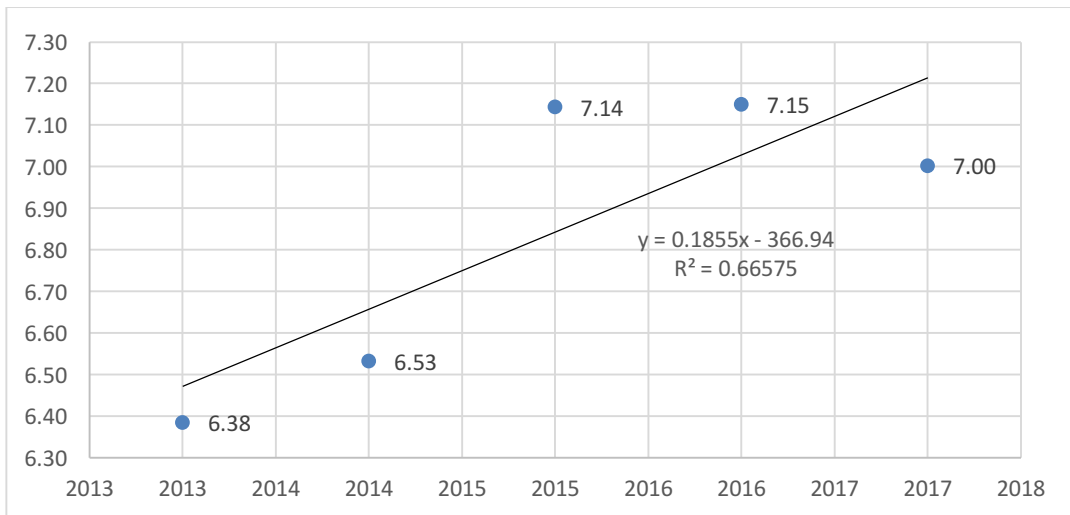
Figure 4.5: Firm Size

4.5 Diagnostic Tests

As mentioned in chapter three, diagnostic tests conducted included linearity, a normality test and multi-collinearity test.

4.5.1 Linearity

Linearity uses the mathematical equation Y=bX where c is a constant to show the association between variable X and Y. The linearity test was obtained through the scatterplot testing. Results in Figure 4.3, 4.4 and 4.5 above show that ROA, liquidity and firm size were linear as depicted by the trend line. The linearity test was conducted for the three variables only since the analysis involved use of secondary data.

4.5.2 Test for Normality of Residuals

The normality test was first conducted using the graphical method approach as presented in Fig. 4.6. The findings depict that the residuals are normally distributed.
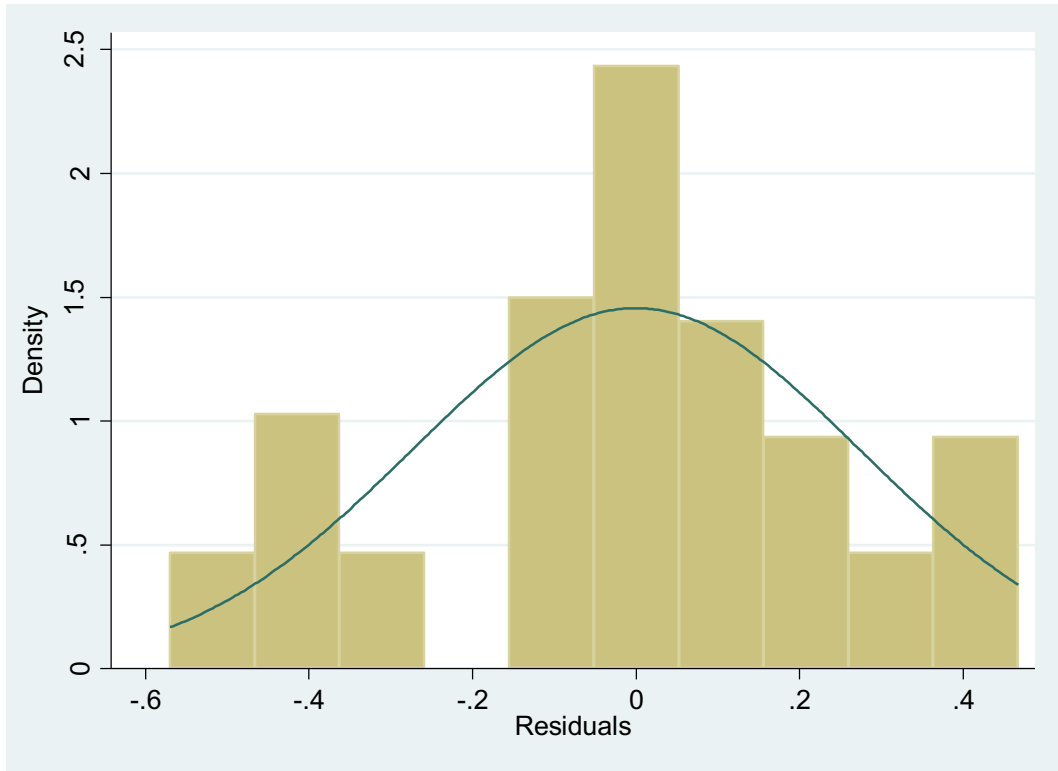
Figure 4.6: Graphical Examination of Normality of residuals

4.5.3 Multi-collinearity test

Correlation analysis was used to conduct the multi-collinearity test. The rule of the thumb is that a correlation between independent variables of more than 0.8 is an indicator of serious multi-collinearity. Preliminary results indicate that there was no multi-colllinearity between the independent variables and the dependent variable. This was supported by the fact that the pearson correlation coefficient for all the variables was less than 0.8. The pearson correlation coefficient for electronic accounting, firm size and firm liquidity was 0.770, 0.611 and 0.688 respectively all the values were less than 0.8 as revealed in table 4.3.

Table 4.3: Multi-collinearity Test using Correlation Analysis

Variable	Financial	Electronic	Firm	Firm

		Performance	Accounting	Size	Liquidity
Financial Performance	Pearson Correlation	1			
	Sig. (2-tailed)				
Electronic Accounting	Pearson Correlation	0.770	1		
	Sig. (2-tailed)	0.000			
Firm Size	Pearson Correlation	0.611	0.778	1	
	Sig. (2-tailed)	0.000	0.000		
Firm Liquidity	Pearson Correlation	0.688	0.729	0.567	1
	Sig. (2-tailed)	0.000	0.000	0.000	

4.6 Inferential Data Analysis

This section presents analysis that show the relationship between the independent variables to the dependent variable. The section is also concerned with the significance of the variables under study.

4.6.1 Regression Analysis

The equation of regression was.

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon.$

Where;

Y= Financial performance of Kenyan commercial state corporations as measured by return on assets

β_0 = Constant Term

41

β_i = Beta Coefficient of variable i which measures the change Y to change in i

X_1 = Electronic accounting as measured using a likert scale

X_2 = Firm liquidity as measured by the current ratio

X_3 = size of the firm as measured by natural logarithm of total assets

ε = Error term

Table 4.4 shows the model fitness showed the relationship between electronic accounting and financial performance of commercial state corporations. The R squared was 0.628. This stipulates that the joint effect of the independent variables (electronic accounting, firm size and firm liquidity) explains 62.8% of the financial performance of commercial state corporations.

Table 4.4: Model of Fitness

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.792	0.628	0.606	0.28519

The significance of the model was confirmed by the ANOVA results presented in table 4.5. This depicts that the joint effect of electronic accounting, firm size and firm liquidity were statistically significant in explaining financial performance of commercial state corporations as supported by a p value of 0.000.

Table 4.5: Analysis of Variance (ANOVA)

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.991	3	2.33	28.651	0.000
Residual	4.148	51	0.081		
Total	11.139	54			

The regression findings are as presented in Table 4.6. The results depicted that electronic accounting and financial performance had a positive and significant relationship as supported by beta coefficients of 1.874 and a p value of 0.001. This means better electronic accounting would result to increased financial performance. Firm size and financial performance are also portrayed to be positively and significantly related as evidenced by beta coefficients of 0.115 and a p-value of 0.000. This means an increase in firm size would results to increased financial performance. Firm liquidity and financial performance are also portrayed to be positively and significantly related as evidenced by beta coefficients of 0.179 and a p-value of 0.035. This means that an increase in the firms' liquidity would results to increased financial performance.

Table 4.6: Regression of Coefficients

Variable	B	Std. Error	t	Sig.
(Constant)	1.37	0.321	4.268	0.000
Electronic Accounting	1.874	0.557	3.364	0.001
Firm Size	0.115	0.023	4.981	0.000
Firm Liquidity	0.179	0.083	2.161	0.035

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter dealt with the summary of the findings, the conclusion and recommendations. This was done in line with the objective of the study. Areas of further research were proposed and limitations of the study were considered.

5.2 Summary of Findings

The study results indicate that electronic accounting affect the financial performance of commercial state corporations. The results were supported by the findings that electronic accounting had a positive and significant relationship with the financial performance of commercial state corporations. This implies that improved use of electronic accounting would help to improve the financial performance of commercial state corporations. The results agree with those of Baren (2010) who posited that e-accounting systems are vital to businesses in different ways. Computers usage saves on time, reduces costs, and ensures that all the financial and business information is well organized. It also simplifies the process inputting relevant accounting information.

Firm liquidity and financial performance of commercial state corporations were also portrayed to be positively and significantly related. This implies that improved firm liquidity would help to improve the financial performance of commercial state corporations. The findings are consistent with those of Almajali et al., (2012) who noted that firm's liquidity may have significant effect on financial performance of insurance companies; therefore, he suggested that insurance companies should aim at

increasing their current assets while decreasing their current liabilities. Firm size and financial performance of commercial state corporations were also portrayed to be positively and significantly related. This depicts that an increase in firm size would help to improve the financial performance of commercial state corporations. The findings agree with those of Burca and Batrinca (2014) who asserted that the relationship existing between size and financial performance is positive in the sense that more resources are available in larger firms, better risk diversification strategies, complex information systems and are able to manage expenses well compared to small firms.

5.3 Conclusions

The study concluded that electronic accounting has a positive effect on the financial performance of commercial state corporations. Specifically, the study concluded that electronic accounting, firm liquidity and firm size have a positive effect on the financial performance of commercial state corporations.

5.4 Recommendations

From the findings discussed above the study recommends the following; first, given that electronic accounting systems were significant a recommendation is given that the state corporations ought to put more emphasis on the importance to adopt electronic accounting which will result to improved financial performance. Additionally, the study recommends that the state corporations should train the employees in charge of accounting so that they are in a position to apply electronic accounting appropriately in a bid to boost the performance. Since firm liquidity was also significant in explaining financial performance the study recommends that firms

should ensure that they maintain a good balance between the current assets and liabilities so as to enhance their financial performance. Thirdly, the study recommends that firms ought to embrace techniques that expand their firm size coming about to a situation whereby they increment their insurance and hence allowing them the capacity to get to more debt. This will in return enhance their financial performance.

5.5 Limitation of the Study

The study was limited to selected aspects that influence financial performance of commercial state corporations. Given that the financial performance of these corporations could be attributable to other factors that were not covered in this study, then the findings of the study would not necessarily be generalizable to the entire population of state corporations in Kenya.

Secondly, the study sample size was small since the study focused on only 54 commercial state corporations. Hence, one cannot generalize the study findings to other companies as generalization requires a larger sample size to ensure a representative distribution of the population. This also allows for consideration of representation of groups of people to whom results will be generalized or transferred.

Thirdly the study was constrained by the inability to find data from some of the commercial state corporations and in other cases where data was available they were not complete and as a result this might have introduced some element of biasness in the study finding and thus the representatives of the findings may not represent an accurate picture of the relationship between electronic accounting and financial performance of commercial state corporations.

5.6 Suggestions for Further Studies

This study suggests that further study on financial performance of commercial state corporations that include external firm characteristics i.e. macroeconomic variables can also be done. This is because in addition to the in-firm characteristics the financial performance of corporations is also affected by external characteristics such as political stability which in turns affects the willingness of a firm to borrow, the country's economic growth rate, inflation among other variables could as well be included in modeling the corporation's financial performance. The study also suggests that a study of the benefits of electronic accounting should be conducted. This would help to find out the other aspects that are influenced by electronic accounting other than financial performance.

REFERENCES

Adams, M. & Buckle, M. (2000). The determinants of operational performance in Bermuda Insurance Market. *Applied Financial Economics*, 13, 133-43.

Agrawal, A. & Knoeber. (1998). Managerial compensation and the threat of takeover. *Journal of Financial Economics* 47, 219-239.

Athanasoglou, P., Sophocles, B., & Matthaois, D. (2009). Bank-specific, industry-specific and macroeconomic determinants of Bank profitability. *Journal of International Financial Markets, Institutions and Money*. [Online] 121-136. Available from: http://ssrn.com/abstract:1106825.

Bon, A. T., & Mustafa, E. (2013). Impact of Total Quality Management on Innovation in Service Organizations: Literature Review and New Conceptual Framework. *Procedia Engineering*, 53, 516-529.

Bouba, I. (2011). *Financial Performance Measurement of Manufacturing Small and Medium Enterprises in Pretoria: A Multiple Exploratory Case Study*. Unpublished Project. University Of South Africa

Burca & Batrinca (2014). The Determinants of Financial Performance in the Romanian Insurance Market. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 4(1), 299-308

Burns, N. & Burns, S. (2008). *The Practice of Nursing Research: Conduct, Critique and Utilization*: 5th Edition: St Louis, Elsevier Saunders

Central Bank of Kenya (2016). Annual Reports. Retrieved from: http://www.centralbank.go.ke

Cherotich, A., & Bichanga, O. W. (2016). Factors affecting effective implementation of integrated financial management information systems by the county governments of Kenya. *Information & Management, 6(2), 11-29*

Conrad, M. S. (2013). *Adoption of integrated financial management information system (IFMIS) by the national government in Kenya*. Unpublished MBA Research project, University of Nairobi

Cooper, R., & Schindler, S. (2008). *Business research methods*. New York: McGrawhill

Daft, R.L. (1998). *Organization Theory and Design*, South-Western College Publishing, International Thompson.

Davila, T. (2014). *The innovation strategy big companies should pursue*. Harvard Business School Publishing

Davies, J., Toxall, G. R., & Pallister, J. (2002). Beyond the intention-behavior mythology: An integrated model of recycling. *Marketing Theory*, 2 (1), 29-113.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–339.

Dener, C. & Young, S. (2013). *Financial Management Information Systems and Open Budget Data: Do Governments Report on Where the Money Goes*? Washington DC: World Bank Publications.

Dishaw, M. T. & Strong, D. M. (1999). Extending the technology acceptance model with task-technology fit constructs, *Information & Management*, 36(1), 9-21.

Drucker, P. (2001). Innovation and entrepreneurship. Butterworth-Heinemann, Oxford economy, *MIT Sloan Management Review, spring*, 21 (4), 34-59

Fisher, R.F. (1971). The elastic constants of the human lens, *Journal of Physiology*, 212 (2), 147-180

Flannery, M. & Protopadakis, W. (2002). Macroeconomic Factors that Influence Aggregate Stock Returns. *The Review of Financial Studies*, 7(4)751-782.

Gaynor, G.H. (2002). Innovation by design: What it takes to keep your company on the cutting edge. *AMACOM American Management Association*, New York, NY

Goh, A. (2002). Industrial Policy Focus of South East Asian Nations: Technology Development or Innovation? *Journal for Institutional Innovation, Development and Transition*, 6(1), 89-91.

Government of Kenya (1987). State Corporation Act

Government of Kenya (GoK) sessional paper (1991), "Economic Development and employment in Kenya"

Hart, M. (1995). *Business marketing management*: B2B. Cengage Learning.

Hart, M. & Sanders, C. (2015). *Technological innovation in legacy sectors*. New York, NY: Oxford University Press.

Hendriks, C. J. (2012). Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa. *SA Journal of Information Management*, 14(1), 9-20

Isidore, M. (2012). An assessment of how integrated financial management information system enhances financial decision making at Tanesco. *Public finance Journal*, 24, 89-105.

Kajirwa, H. I. (2015). Effects of Debt on Firm Performance: A Survey of Commercial Banks Listed on Nairobi Securities Exchange. *Global Journal of Advanced Research*, 2(6), 1025-1029

Kantor, P. (2001). *Innovation and Business Perfomance.* Chicago: Chicago International Publishers.

Khan, J. A. (2008). *Research Methodology*. New Delhi. APH Publishing Corporation

Kimwele, J. (2009). *Factors affecting effective implementation of IFMIS in government ministries in Kenya*. Unpublished MBA project. University of Nairobi

KPMG (2012). *PEFA Consultancy Services for Performance Evaluation of the Public Financial Management Reforms Strategy 2006 – 2011*. Nairobi: Public Financial Management Reform Secretariat.

Krishna, R. (2015). The Impact of Information and Communication Technology on the Indian. *Banking Sector Voice of Research*, 3(4), 67-98.

Kusa, G., & Ongore, O. (2013). Determinants of the financial performance of commercial Banks in Kenya. *International Journal of Economics and Financial Issues, 3*(1) 237-252

Kwon, Y. & Song, K. (2011). *Merger Process and Shareholder Wealth: Evidence from Public Tender Offer in Korea.* Korea Advanced Institute of Science and Technology, Korea

Liargovas, P. & Skandalis K. (2008). *Factors affecting firm's financial performance*. The case of Greece, Athens. University of Peloponnese Press

Mentzer, J., Min, S., & Michelle Bobbitt, L. (2004). Toward a unified theory of logistics. *International Journal of Physical Distribution & Logistics Management*, *34*(8), 606-627.

Mobegi, H. N. (2009). *A survey of the extent of implementation of integrated financial management information system (IFMIS) as a tool for sustainable financial management in government,* Unpublished Doctoral dissertation, of University of Nairobi.

Mwangi, M., & Angima, C. (2016). Actuarial Risk Management Practices and Financial Performance of Property and Casualty Insurance Firms: Identification of a Moderating Variable. *International Journal of Humanities and Social Science*, 6(2), 126 – 132

Mwangi, M. & Murigu, J. (2015). The Determinants of Financial Performance in General Insurance Companies in Kenya. *European Scientific Journal*, 11(1), 288 – 297

Ngugi, J. K. & Mugo, H. W. (2012). *Internal Factors Affecting Procurement Process of Supplies in the Public Sector; a Survey of Kenya Government Ministries.* Unpublished MBA research project, JKUAT

Njoroge, A. (2014). *Relationship between capital structure and financial performance.* An unpublished MBA project, University of Nairobi

Nyamita, M. O. (2014). *Factors Influencing Debt Financing and Its Effects on Financial Performance of State Corporations in Kenya.* Doctorate Thesis. Durban University of Technology

Omondi, O. M. & Muturi, W. (2013). Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting,* 4 (15), 99 – 104.

Rodin-Brown, E. (2008). *Intergrated Financial Management Information Systems: a Practical Guide edited by Steve Rozer and Marck Gallagher. United States Agency for International Development.* Development Alternatives, Inc. Under the Fiscal Reform and Economic Governance Task Order

Rogers, E. M. (1995). A prospective and retrospective look at the diffusion model. *Journal of Health Communication*, 9(S1), 13-19.

Rogers, E.M. (2003). *Diffusion of innovations.* New York: Free Press.

Ruttan, H. (1984). *Innovation and diffusion.* London: Cambridge Publishers

Sorensen, B., & Stuart, E. (2000). Age, obsolescence, and organizational innovation. *Academy of Management Journal*, 25(3), 27-38

Su, G, & Vo, H. T. (2010). The relationship between corporate strategy, capital structure and firm performance: an empirical study of the listed companies in Vietnam. *Research Journal of Finance and Economics*, 50(1), 24-30.

Sun H. & Zhang P. (2006). The role of moderating factors in user technology acceptance, *Journal of Human-Computer Studies*, 64(1), 53-78.

Wagner, H. (2006). Managing the Impact of IT on Firm Success : The Link between the Resource-Based View and the IT Infrustructure Library. *Proceedings of the 39th Annual Hawii International Conference on Systems Science,.HICSS ,06, 197.*

Wamuyu, K. A. (2013). *The effect of integrated financial management information system on public financial management and service delivery of government ministries in Kenya.* Unpublished MBA project, University of Nairobi

Wimmer, M. A., Chappelet, J-Loup, Janssen, M. & Choll, H. J. (2010). *Electronic Government: 9th International Conference, EGOV 2010, Lausanne, Switzerland, August 29-September 2, 2010, proceedings.* New York: Springer Science & Business Media.

Xu, M. & Wanrapee, B. (2014). *Factors Affecting Financial Performance of Firms Listed on Shanghai Stock Exchange.* University of the Thai

Yahaya, O. A. & Lamidi, Y. (2015). Empirical Examination of the Financial Performance of Islamic Banking in Nigeria: A Case Study Approach. *International Journal of Accounting Research*, 2(7), 1 – 13

Yilmaz, C., Alpkan, L. & Ergun, E. (2005). Cultural determinants of customer- and learning-oriented value systems and their joint effects on firm performance. *Journal of Business Research;* 58 (10): 1340-52.

APPENDICES

Appendix I: Questionnaire

This questionnaire has been designed to collect information on the existence of electronic accounting in commercial state corporations which will then be compared to their financial performance data collected from a secondary source. Please read carefully and answer the questions as honestly as possible. The information gathered will be used purely for the purpose of academic research and will be treated with utmost confidence.

Instructions

1. Tick appropriately in the box or fill in the space provided.

2. Feel free to give further relevant information to the research.

PART A: BIOGRAPHIC INFORMATION

1. Name of the institution…..

2. For how long have the institution been using electronic accounting system?

Below 5 years ☐

6 to 10 years ☐

Above 10 years ☐

3. How would you generally rate the electronic accounting system in your organization in relation to financial performance?

Excellent ☐ Good ☐ Fair ☐ Poor ☐

PART B: Electronic Accounting System

Explain the extent to which your institution applies e-accounting in its operations. Use

1- Strongly Disagree, 2- Disagree, 3-Moderate agree, 4- Agree, 5- Strongly Agree

Component	1	2	3	4	5
To what extent are the operations of your firm computerized?					
Does your firm have a specific computer (data base) department?					
Does computerization aid quick customer service decision making process and accountability in your firm?					
Computerized means of keeping proper accounting records.					
E-accounting system help to gain inherent advantage while minimizing risks involved in the daily firm operations.					
There are co-ordination and quality service firm operation through the use of E-accounting system.					
There is effectiveness when using computer to keep accounting					

records.					
E-Accounting system aids in the examination of banks statements of financial positions to ensure agreement with source documents.					

PART C: FINANCIAL PERFORMANCE

Explain the extent to which your institution applies e-accounting to improve financial performance. Use 1- Very low extent, 2-Low extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Component	1	2	3	4	5
Since the adoption of e-accounting the operating expenses have been minimized					
The corporation's revenue have been rising steadily					
E-accounting system ensures that revenue is collected from all the projects					
E-accounting ensures timely collection of revenue					

Source; Author

Thank you for your participation

Appendix II: Secondary Data Collection Form

Year	ROA	Firm Liquidity	Firm Size

Source; Author

Appendix III: Commercial State Corporations in Kenya

S /No.	Commercial State corporations	Sector
1.	Agro-Chemical and Food company	Agriculture, Livestock & Fisheries
2.	Kenya Meat Commission	Agriculture, Livestock & Fisheries
3.	Muhoroni Sugar Company Ltd	Agriculture, Livestock & Fisheries
4.	Nyayo Tea Zones development Corporation	Agriculture, Livestock & Fisheries
5.	South Nyanza Sugar Company Limited	Agriculture, Livestock & Fisheries
6.	Chemilil Sugar Company Ltd	Agriculture, Livestock & Fisheries
7.	Nzoia Sugar Company Ltd	Agriculture, Livestock & Fisheries
8.	Simlaw Seeds	Agriculture, Livestock & Fisheries
9.	Fisheries Development and Promotion Service (new	Agriculture, Livestock & Fisheries
10.	Kenya Wildlife and Forestry Conservation Service	East African Affairs, Commerce & Tourism
11.	Kenya National Trading Trading (KNTC) East	East African Affairs, Commerce & Tourism

12.	Kenya Safari Lodges and Hotels Ltd East African	East African Affairs, Commerce & Tourism
13.	Golf Hotel Kakamega East African	East African Affairs, Commerce & Tourism
14.	Kabarnet Hotel Limited East African	East African Affairs, Commerce & Tourism
15.	Mt Elgon Lodge East African	East African Affairs, Commerce & Tourism
16.	Sunset Hotel Kisumu East African	East African Affairs, Commerce & Tourism
17.	Jomo Kenyatta Foundation	Education, Science & Technology
18.	Jomo Kenyatta University Enterprises Ltd	Education, Science & Technology
19.	Kenya Literature Bureau (KLB)	Education, Science &Technology
20.	Rivatex (East Africa) Ltd	Education, Science & Technology
21.	School Equipment Production Unit	Education, Science & Technology

22.	University of Nairobi Enterprises Ltd	Education, Science & Technology
23.	University of Nairobi Press (UONP)	Education, Science & Technology
24.	Development Bank of Kenya Ltd	Industrialization & Enterprise Development
25.	Kenya Wine Agencies Ltd (KWAL)	Industrialization & Enterprise Development
26.	KWA Holdings	Industrialization & Enterprise Development
27	New Kenya Co-operative Creameries	Industrialization & Enterprise Development
28.	Yatta Vineyards Ltd	Industrialization & Enterprise Development
29.	National Housing Corporation	Lands, Housing & Urban Development
30.	Consolidated Bank of Kenya	National Treasury
31.	Kenya National Assurance Co. (2001) Ltd	National Treasury
32.	Kenya Reinsurance Corporation Ltd	National Treasury
33.	Kenya National Shipping Line	Transport & Infrastructure
34.	Kenya Animal Genetics Resource	Agriculture, Livestock & Fisheries
35.	Kenya Seed Company (KSC)	Agriculture, Livestock & Fisheries

36.	Kenya Veterinary Vaccine Production Institute	Agriculture, Livestock & Fisheries
37.	National Cereals & Produce Board(NCPB)	Agriculture, Livestock & Fisheries
38.	Kenyatta International Convention Centre	East African Affairs, Commerce & Tourism
39.	Geothermal Development Company (GDC)	Energy & Petroleum
40.	Kenya Electricity Generating Company	Energy & Petroleum
41.	Kenya Electricity Transmission Company	Energy & Petroleum
42.	Kenya Pipeline Company (KPC)	Energy & Petroleum
43.	Kenya Power and Lighting Company (KPLC	Energy & Petroleum
44.	National Oil Corporation of Kenya	Energy & Petroleum
45.	National Water Conservation and Pipeline Corporation Environment, Water & Natural Resources	Industrialization & Enterprise
46.	Numerical Machining Complex	Industrialization & Enterprise
47.	Kenya Broadcasting Corporation	Information, Communication & Technology
48.	Postal Corporation of Kenya	Information, Communication & Technology
49.	Kenya Development Bank	National Treasury
50.	Kenya EXIM Bank	National Treasury
51.	Kenya Post Office Savings Bank	National Treasury

52.	Kenya Airports Authority (KAA)	Transport & Infrastructure
53.	Kenya Ports Authority (KPA)	Transport & Infrastructure
54.	Kenya Railways Corporation (KRC	Transport & Infrastructure

Source; Ministry of Industry, Trade and Cooperation; Government of Kenya