

**EFFECT OF MANAGEMENT PRACTICES ON CREATIVE  
ACCOUNTING AMONG CORPORATIONS LISTED AT  
THE NAIROBI SECURITIES EXCHANGE**

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Exchange**

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**A thesis submitted in partial fulfillment for the degree of Doctor of  
Philosophy in Business Administration in the Jomo Kenyatta  
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## **DECLARATION**

This thesis is my original work and has not been presented for a degree in any other University.

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## **DEDICATION**

I am grateful to God for grace to carry out this research. I dedicate this work to my wife Christine Kanana and our children Carol and Cynthia; as well as my parents Francis Kamau and Magdalene Njango; without whose support I would not have succeeded.

May God richly bless you.

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## **ABBREVIATIONS**

<b>CEO</b>	Chief Executive officer
<b>CFO</b>	Chief Finance Officer
<b>CMA</b>	Capital Markets Authority
<b>GAAP</b>	Generally Accepted Accounting Practices
<b>GPP&amp;E</b>	Gross Property Plant and Equipment
<b>IFRS</b>	International Financial Reporting Standards
<b>IT</b>	Information Technology
<b>KCC</b>	Kenya Co-operative Creameries
<b>NSE</b>	Nairobi Securities Exchange
<b>SACCO</b>	Savings and Credit Co-operative Societies
<b>SASRA</b>	SACCO Societies Regulatory Authority
<b>SMEs</b>	Small and Micro Enterprises
<b>USA</b>	United States of America

## **DEFINITION OF TERMS**

<b>Contractual Obligations</b>	Activity that a person is officially required to do through having signed an agreement to do. Managers of a company for example are under contractual obligation to run a profitable organization on behalf of the shareholders (Stone, 2011)
<b>Corporations</b>	A firm comprising of seven or more persons may form a company by subscribing their names to a memorandum of association, and a few other documents, including articles of associations, where these are required (Saalemi, 1999).
<b>Creative Accounting</b>	Modification of accounting figures to what the organizations managers and directors desire by exploiting the loopholes of the existing rules and/or ignoring some of them (Gosh, 2010).
<b>Insider Dealings</b>	An arrangement where an insider or a related party trades based on price sensitive non-public information obtained during the performance of the assigned duties at the corporation, it also involves breach of trust and confidence or where the confidential information was misappropriated from the company (Bewaji, 2012).
<b>Manager's Compensation</b>	Direct and indirect benefits given to managers based on their performance or the firm's performance e.g. bonuses (Xie <i>et al.</i> , 2003)

<b>Practices</b>	Management actions that are usually or regularly performed, often as a habit, tradition, or custom: In some cases they may form part of organization culture (Kotter, 2008).
<b>Share Price performance Management</b>	These are management strategies aimed at stabilizing or improving share price performance. Share Price Performance is a measure of the returns on shares over a period of time. In most cases it is based on a Stock Exchange Index (Neely, 2007).
<b>Tax management</b>	This is a logical examination of a financial position or plan from a tax perspective, to align financial goals with tax efficiency planning. The purpose of tax planning is to discover how to accomplish all of the other elements of a financial plan in the most tax-efficient manner possible (Bella, 2011)

## **ABSTRACT**

The purpose of this thesis was to determine the management practices influencing creative accounting among listed on the Nairobi Securities Exchange (NSE) in Kenya. The study analyzed the effect of manager's compensation, contractual obligations, tax management, Share price performance management and insider dealings on creative accounting. The study was based on the existing theories, more so on the positive accounting theories, which were used to identify these accounting practices. Systematic sampling method was applied in selecting the sample for the study. The research design used in this study was a cross sectional survey design which assessed data for the year 2014. Secondary data was extracted from the annual financial reports for the respondent companies, NSE database, journals and other publications. Primary data was acquired through administering questionnaires and interviews to a sample of managers, accountants and internal auditors of companies publicly listed on the NSE. A sample of thirty nine out of a target population of sixty four Companies publicly listed was extracted from the Nairobi Securities Exchange website. A pilot test on a different sample gave a Cronbach's alpha greater than 0.8 for all the variables. Data analysis was by descriptive statistics and inferential statistics using Statistical Packages for Social Sciences (SPSS). Analysis of variance (ANOVA) was used to establish the level of statistical significance of difference between the observed and expected values. Regression analysis was used to estimate the model coefficients while Pearson coefficient of correlation was used to establish the strength of relationship among the variables, Test of hypothesis was also carried out. The results indicated that manager's compensation, contractual obligations, tax management and insider dealings have significant effect on creative accounting. Share price performance management on the other hand had no significant influence on creative accounting among the companies listed on the NSE. This was further confirmed by  $R^2$  improving from 0.5 to 0.61 after dropping Share Price Performance Management from the model. The limitations of the study included the fact that topic is quite sensitive and most of the respondents viewed

such information as confidential. The researcher convinced the respondents by first explaining that creative accounting is not necessarily illegal. Another limitation was the analysis of the secondary data employed the modified Jones Model, which despite its application by many researchers has been critiqued as having some limitations such as errors related to measures of discretionary accruals. The study recommended that, there is need for corporations to have special board members charged with monitoring and evaluation activities. Where such members exist, they need to be more vigilant in assessing the quality of the financial statements.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background**

Creative accounting is as old as the accounting profession itself. Creative Accounting continues to be a problem despite the fact that accounting scholars have over the years carried out several researches in order to understand and address it. Creative accounting continues to be practiced by various corporations in the world including in Kenya hence the researcher's interest in its determinants (Mulford & Comiskey, 2011). Much of the studies which relate to practices influencing creative accounting dwell mainly on the positive accounting theories but this thesis included practices associated with agency theory and information theory so as to have a wider view of the problem.

Creative accounting is described as modification of accounting figures to what the organizations managers and directors desire by exploiting the loopholes of the existing rules and/or ignoring some of them. Creative accounting involves those practices which are openly displayed such as window dressing and those which are sophisticated such as off-balance sheet financing (Gosh, 2010). The difference between creative accounting and fraud is that creative accounting is working within the regulatory framework but fraud involves breaking the law or violating regulatory framework (Jones, 2011). The terms earnings management, innovative accounting, cosmetic accounting and aggressive accounting are often used to refer to creative accounting (Walsh, Craig & Clarke, 1991). According to Amat and Gowthorpe (2004) creative accounting is also referred to also as earnings management, income smoothing, earnings smoothing, aggressive accounting, financial engineering accounting manipulations and cosmetic accounting. This study prefers the term creative accounting since it is all inclusive.

The basic information about creative accounting was brought up by the father of accounting Luca Pacioli in 1494. This was through his seminal work on accounting, De

Arithmetica, where Pacioli described creative accounting as an attempt to make figures more appealing or otherwise in the eyes of the accounts' readers. Therefore practice of creative accounting has been in existence for over 500 years. The accountants have used the term 'cover up' since then. In 1920s during the birth of corporate governance principles, creative accounting was considered as one of the main reasons for its development. This was because of financial and legal innovations which were practiced to allow corporate managers extort control of corporations away from their legal owners who are the shareholders (Ripley, 1927). Creative accounting also involves innovatively concealing errors discovered in the books of accounts (Balaciu, Bogdan & Vladu, 2009).

Creative accounting is usually believed to have led to emergence of various disciplines such as; auditing profession in the 18th century after management took advantage of the separation of management and ownership functions to engage in opportunistic behavior (Rabin, 2005); corporate management (Ripley, 1927); and development of generally accepted accounting standards following the great depression where several dollars was lost in the stock market and Securities Act of 1934 was passed in America which gave American Institute of Accountants task to come up with standards (Prentice & Spence, 2006).

Collapse of various multinational and major corporations in the world is attributed to the practice of creative accounting. During the last two decades, severe accounting scandals occurred in large companies such as WorldCom, Enron BCCI, Barings, HealthSouth and Tyco in USA, (Omurgonulsen & Omurgonulsen, 2009) Baninter Intercontinental in Dominican Republic, Parmalat SPA a multinational Italian food and Daily Corporation, Olympus Corporation in Japan, Satyam Computer Services in India and the Sanlu Group in China among many other large corporations in the world (Soble, 2011). The fall of Enron was one of the biggest scandals in the world provides lessons that detrimental commitment to maximization of share prices worsens the old warning signs that could

have conventionally caused corporate financial frauds (Prentice, 2002). The fall of Enron resulted in the fall of their auditor Author Anderson (Grey, 2003).

In Kenya, several cases where managers and directors have been accused of poor corporate governance resulting to corporate scandals have been cited which include the collapse of Euro Bank in 2004, the placement of Uchumi Supermarkets under receivership in 2004, National Bank of Kenya, the near collapses of Unga Group and board room wrangles on the discovery of secret overseas bank accounts for siphoning company money by some directors at CMC Motors (Iraya, Mwangi & Muchoki, 2015)

Creative accounting is being practiced by many companies across the world. In India for example, the following companies are on record having practiced various forms of accounting manipulations: WIPRO Ltd a successful company in the IT sector, transferred land worth 2.96 million US Dollars from fixed assets to current assets, awaiting its sale; Larsen and Toubro Ltd assigned some of its outstanding debt to one of its subsidiaries and the effect was inflated profits arising from a contingent liability; Hindustan Zinc Ltd reclassified investments into tangible assets to bend the requirement of valuation of investments; and most recently ONGC Ltd capitalized interest as and other intangible assets to adjust fixed assets value upward and understating revenue expenses (Gosh, 2009).In USA there is tendency of new managers to show losses due to poor management of previous management. This tendency was found to be common in US bank managers. Further window dressing is likely to take place before corporate events like IPO, acquisition or before taking a loan (Shah & Butt, 2011).

Akenbor and Ibanichuka (2012) found out that creative accounting was being practised by Nigerian Banks, the major reason being, to boost up the market value of shares and as a result users of accounting information are adversely affected. Reports by Reserve Bank of Zimbabwe (2006) indicated that, in Zimbabwe the banks collapse partly as a result of creative accounting, where banking institutions creates two sets of books; one showing a strong financial status and another a different representation. In South Africa, research

suggests that aggressive accounting occurs where transactions are structured to avoid recognition criteria within GAAP and by manipulating recognition and measurement principles to achieve a preset desired end result (Rabin, 2005).

The current management accounting system in Kenya appears to be frail. There are some difficulties associated with the current management accounting in Kenya and hence ethical consideration could help revamp the whole system (Mathenge, 2012). Several companies in Kenya are reportedly faced with allegations of massive fraud and creative accounting, the most recent one being Harambee SACCO whose top officials were suspended by SACCO Societies Regulatory Authority (SASRA) to pave the way for investigations into the alleged fraud (Omwenga, 2012).

There is a rising trend of Kenyan firms having financial difficulties and even some collapsing examples being KCC, Uchumi Supermarkets, A Baumann and Company, Bulk medical limited Nyaga stock brokers etc (Maina & Sakwa, 2012). The financial statements of some of the organizations showed signs of strength despite their internal weaknesses.

The Positive Accounting theories clearly outline three management practices that influence creative accounting (Diana & Madalina, 2007). These practices include bonus type of compensations to management which are based on company's performance, debt covenants together with their related contractual obligations and political costs hypothesis which includes tax management. Information theory as explained by Schipper (1989) also outlines another management practice that could lead to creative accounting. This practice is insider dealings, where management takes advantage of information asymmetry between them and the shareholders, to advance their personal interests. This research therefore sought for an in depth analysis of the management practices influencing creative accounting in Kenya.

## **1.2 Statement of the Problem**

For many years, scholars have debated about ‘creative accounting’ a term which is used to describe accepted accounting techniques which permit corporations to report financial results that may not accurately portray the substance of their business activities. Creative accounting topic has been controversial because in some countries such as Greece it is backed by law (Baralexis, 2004) while in some other countries such as Bangladesh it is considered illegal (Sen & Inanga, 2005). Likewise some scholars argue that creative accounting is legitimate and ethical while others consider it illegitimate and unethical (Healy & Wahlen, 1999).

Regulators of accounting profession in Kenya seem to be silent on the issue of creative accounting yet it is widely practiced among many companies in the country (Mbaire, 2012). Further users of accounting information seem not to have perceived this practice of creative accounting which has led to collapse of many major companies globally such as Enron and world com (Ayala & Giancarlo, 2006) and locally such as Nyaga stock brokers and Discount Securities (Bonyop, 2009). Uchumi supermarkets ltd also admitted in the financial statements for 2015 that creative accounting was being practiced up to the year 2014 when new management took over (Mire, 2015). CMA which is one of the regulators only established a frauds investigations unit in 2009, after collapse of four brokerage firms (Gakeri, 2012). Gakeri, 2012 further suggested that “Capital Markets Authority has not found firm ground in the treacherous path of evolving clearly articulable or identifiable enforcement jurisprudence”.

As much as there are many studies that have attempted to unravel the problem of creative accounting (Baralexis, 2004; Sen & Inanga, 2005; Ayala & Giancarlo, 2006) the accounting practitioners and management cannot clearly point out whether it’s an illegal or unethical practice. Creative accounting by its nature, whether legal or illegal, involves modification of accounting figures (Gosh, 2010) which could easily provide misleading information to the users. Accounting information users may not have the privilege of

holding inside information. It becomes necessary for the users of accounting information to be aware of the management practices that culminate into creative accounting. This study therefore focused on management practices influencing creative accounting among listed companies in Kenya; in an attempt to substantiate the issues of creative accounting and hence, add knowledge to this field of study.

### **1.3 Objectives of the Study**

The objectives in this study are divided into both general and specific objectives

#### **1.3.1 General objective**

To analyze the effect of management practices on creative accounting among corporations listed at the Nairobi Securities Exchange

#### **1.3.2 Specific Objectives**

1. To evaluate the effect of managerial compensation on creative accounting among Corporations listed at Nairobi Securities Exchange
2. To assess the influence of contractual obligations on creative accounting among Corporations listed at Nairobi Securities Exchange
3. To establish the effect of tax management on creative accounting among Corporations listed at Nairobi Securities Exchange
4. To find out the effect of share price performance management on creative accounting among Corporations listed at Nairobi Securities Exchange
5. To establish the effect of insider dealings on creative accounting among Corporations listed at Nairobi Securities Exchange

### **1.4 Research Questions**

1. What effect does manager's compensation has on creative accounting among Corporations listed at Nairobi Securities Exchange?

2. What influence do contractual obligations have on creative accounting among Corporations listed at Nairobi Securities Exchange?
3. What effect does tax management has on creative accounting among Corporations listed at Nairobi Securities Exchange?
4. What effect does share price performance management has on creative accounting among Corporations listed at Nairobi Securities Exchange?
5. What effect does insider dealings have on creative accounting among Corporations listed at Nairobi Securities Exchange?

### **1.5 Hypotheses**

The Hypotheses of study are stated as follows:

1.  $H_0$ : Manager's compensation has no effect on creative accounting among Corporations listed at Nairobi Securities Exchange  
 $H_1$ : Manager's compensation has an effect on creative accounting among Corporations listed at Nairobi Securities Exchange
2.  $H_0$ : Contractual obligations do not influence creative accounting among Corporations listed at Nairobi Securities Exchange  
 $H_1$ : Contractual obligations do influence creative accounting among Corporations listed at Nairobi Securities Exchange
3.  $H_0$ : Tax management has no effect on creative accounting among Corporations listed at Nairobi Securities Exchange  
 $H_1$ : Tax management has an effect on creative accounting among the Corporations Listed at Nairobi Securities Exchange
4.  $H_0$ : Share price performance management has no effect on creative accounting among Corporations listed at Nairobi Securities Exchange  
 $H_1$ : Share price performance management has an effect on creative accounting among Corporations Listed at Nairobi Securities Exchange

5.  $H_0$ : Insider dealings have no effect on creative accounting among Corporations Listed at Nairobi Securities Exchange
- $H_1$ : Insider dealings have an effect on creative accounting among Corporations Listed at Nairobi Securities Exchange

### **1.6 Justification**

Corporations in Kenya are spread out in all the sectors of the economy. They play a major role in economic growth and development through provision of goods and services, creation of employment opportunities, participation in corporate social responsibility, among other roles. According to Economic survey 2015, the major sectors which drove the economy were financial intermediation, wholesale & retail trade, hotels & restaurants, transport & communication, among others. In each of these sectors there is a major corporation which holds a large market share. When creative accounting is practiced by these major corporations, there is a direct impact on the economy since inaccurate information will fool the economy.

Olweny (2014) found out that investor education level is significant in the determination of risk tolerance; this implies that informed investors makes better decisions and this study provided information as regards creative accounting. Further Aroni, Namusonge and Sakwa (2014) observed that financial information significantly influences investor's decisions to invest in shares. With increasing hard economic times and pressure for achievement, companies may be motivated to practice creative accounting for diverse reasons. The research therefore analyzed some of the hypothesized reasons which included high bonuses for managers (Njogu, Gekara, Waititu & Omido, 2015), tax avoidance and insider dealings among other reasons. Players in the accounting profession may not fully understand the operations of creative accounting because different companies practice creative accounting for different reasons.

Kamau and Waweru (2013) stated that companies may hesitate to report bad news and therefore take more time to massage the numbers or resort to creative accounting techniques when they have to report bad news.

This research may assist the players in accounting profession to understand the factors that contribute to practice of creative accounting more so in major corporations in Kenya. This may be instrumental to the regulators of accounting profession in their bid to curb the vice. The users of financial statements may also be made aware of the motivations behind creative accounting and hence the knowledge may help them perceive or suspect possibility of creative accounting in financial reports. This study may form a basis on which other studies can be carried out. The results of this study could also prompt further research in relation to other sectors such as public sector, small and medium sized companies.

## **1.7 Scope**

This study is about the management practices influencing creative accounting among the corporations in Kenya. This implies that the research targets major corporations in Kenya. Most of the major corporations in Kenya are listed at Nairobi Securities Exchange. In order to achieve the study objectives the researcher therefore relied on both primary and secondary data from a sample of companies listed at Nairobi stock exchange. The primary data was gathered by means of questionnaires to the company's accountant and secondary data was obtained from the published financial statements of the companies in the selected sample of 39 companies. The study also analyzed cross-sectional secondary data obtained from the sampled financial statements for the year 2013 and 2014. NSE listed companies were selected because, being large in size and highly regulated, creative accounting is expected to be minimal yet literature suggests that it's being practiced.

## **1.8 Limitations of the study**

Although this thesis was theoretically conducted on a systematic basis under the supervision of qualified and specialized supervisors, there are potential limitations of this research, and the reader should be aware of these when interpreting its research findings. Nevertheless a considerable effort was made on ensuring that the objectives of this research study were met and the research questions were answered. First, the study topic is quite sensitive and most of the respondents viewed such information as confidential. The researcher persuaded the respondents by first explaining that creative accounting is not necessarily illegal. Further in order to overcome this limitation, the researcher triangulated the primary data with the secondary data. Secondly the analysis of the secondary data employed the modified Jones Model, which despite its application by many researchers has been critiqued as having some limitations such as errors related to measures of discretionary accruals. This limitation was not controlled in this study; however it was used as a triangulation measure for primary data. The perceived limitations observed on the model also apply to this research. Thirdly, measurement of insider dealings was a challenge since it appeared more abstract than the rest of the variables. Insider dealings information is also confidential in nature and hence a tendency of the respondents not giving the correct position on the status of affairs. However the secondary data on changes in member's shareholding was used to enhance the integrity of the primary data. Finally, there is a limitation of this research in that it investigated publicly traded companies. Therefore, it cannot be reliably used to study privately-held firms and firms not listed at NSE.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The study carried out a review of literature related to creative accounting and its determinants. It assessed theories related to the study and reviewed theoretical and empirical literature from various sources. A critical analysis of the literature reviewed in comparison with the existing theories helped the study identify the research gaps.

#### **2.2 Theoretical Framework**

A theory is a system of ideas intended to explain something, particularly one based on general principles (Becket, 2006). Theories explain relationships between variables. The following accounting theories are closely related to creative accounting. The positive accounting theories, resources dependency theory, agency theory and information theory, discussed in the subsequent sections were the ones mostly applied by the researchers in the accounting field and hence dominated in the literature reviewed.

##### **2.2.1 Positive Accounting Theories**

One of the theories associated with creative accounting is the positive accounting theory. Positive Accounting Theory attempts to make predictions of real world happenings and interprets them to accounting transactions. Whereas normative accounting theories tend to suggest what ought to be done, Positive Accounting Theories try to give explanation and envisage actions such as which accounting policies firms will choose and why (Scott, 2000). Positive accounting theory rides on a set of three hypotheses which are; bonus plan hypothesis where the managers chose policies which increases their bonuses; Debt covenant hypothesis where the directors will be in favor of those policies that increases current earnings; and political cost hypothesis where the mangers may make

use of the policies that reduces political heat and political costs such as taxes (Watts & Zimmerman, 1990). Creative accounting involves the use of management's judgment to make accounting choices or to design transactions so as to affect the possibilities of wealth transfer between the company and society via political cost hypothesis, funds providers via debt covenant hypothesis or managers via bonus plan hypothesis (Diana & Madalina, 2007)

Several researches have been based on the positive accounting theories. Collin *et al.* (2009) articulated that the choice of accounting standards follow two theories which rarely meet. These theories are the positive accounting theories and the institutional theories. Modell (2010) also articulated that the accounting research is based on dialogue and can partly be traced to the intellectual roots which revolve around 'mainstream' conceptions of the possibilities (and desirability). Positive accounting theories therefore are better placed to deal with the issue of desirability. The study on determinants of different accounting methods choice by Waweru, Prot Ntui and Mangena (2011) was also based on the positive accounting theories.

In summary normative theories relate to the Choice of accounting policies on the basis of the available standards. Positive accounting theories on the other hand relates to choice of accounting policies depending on the expected or desired outcomes. This therefore implies that creative accounting rides more on the positive accounting theories. Researchers have established that Positive Accounting theories center on three hypotheses of bonus plans, debt covenants, and political costs. These three hypothesis also relates to the first three independent variables in this study which are managers compensation, contractual obligations and tax management.

### **2.2.2 Resource Dependency Theory**

Managers are viewed by Pfeffer and Salancik's (1978) to be reasonably dependent on shareholders given that managerial compensation is often based on stock price and

investors have a great deal of discretion over where they invest their capital. Schlachter (1990) argue that managers can create a false impression of control by taking credit for the business successes and at the same time accepting responsibility for negative outcomes. This gives confidence to investors and shareholders that the managers are in control.

Hillman, Withers, and Collins (2009) explains that the resources dependency theory has been applied broadly across the research domain to explain how organizations reduce environmental interdependence and uncertainty. Nienhüser (2008) stated that resources dependency theory can be used to explain the organizational processes and structures to a certain extent. Bryant and Davis (2012) also confirmed that both the Agency theory and resources dependency theories can be used to explain the actions of the board and management.

Resources dependency theory is widely applied in the area of Supply chain management ( Hofer *et al.*, 2012) as compared to the accounting field. This theory is quite relevant to the creative accounting since the theory seeks to explain why management prefers certain actions including the creative accounting actions.

### **2.2.3 Agency Theory**

Ross (1973) and Mitnick (1974), independently and almost concurrently developed this theory. Ross is responsible for the origin of the economic theory of agency, and Mitnick for the institutional theory of agency, though the basic concepts underlying these approaches are similar (Mitnik, 2011). The theory explains the relationship between principals, such as shareholders, and agents, such as a company's executives. In this relationship the principal delegates or hires an agent to perform work. The theory attempts to deal with two specific problems: first, that the goals of the principal and agent are not in conflict (agency problem), and second, that the principal and agent reconcile different tolerances for risk.

Agency theory holds that a company comprises of contracts between the owners of economic resources (the principals) and managers (the agents) who are entrusted with responsibility of using and controlling those resources (Jensen & Meckling, 1976). Jensen and Meckling (1976) further argue that conflicts of interest exist between the management and owners of businesses in such cases where owners are not managers. Agency theory assumes a model of a manager that is individualistic, self serving and opportunistic in nature. The managers contemplated under agency theory prefer to maximize their own interests at the expense of the owners (Adelopo, 2010).

This is one of the most applied theories in the accounting research (Raith, 2009; Kholeif, 2008; Chen & Deng, 2010; Bryant & Davis, 2012). Majority of these studies concur that first, agency problem actually exists between the owners of the organization and its managers, and secondly that the agency problem has a bearing on the actions of the management. This study analyzed some of the actions relating to creative accounting and which were associated with the agency problem.

#### **2.2.4 Information Theory**

There exists an information asymmetry in corporate structures between a privileged management and a more remote body of stakeholders. Managers may choose to misuse their privileged position to exploit shareholders by managing financial reporting disclosers to their advantage (Schipper, 1989). It may be quite difficult for individual stakeholders to detect accounting manipulation practices by management due to their insufficient personal skill and indifference or unwillingness to engage in a detailed financial analysis (Effiok & Eton, 2012).

Wittenberg-Moerman (2008) suggests that conservative reporting decreases information asymmetry regarding a borrower and increases the efficiency of the secondary trading of debt securities. Gigler *et al.* (2009) explains that accounting conservatism affects the efficiency of debt contracts. Their study was based on the information theory on the

premise that financial statements are one way of giving information to the relevant parties. Accounting conservatism has direct effect on the financial statements since it's a way of dealing with doubtful situations in accounting. Conservatism and accrual accounting can also be a tool of creative accounting.

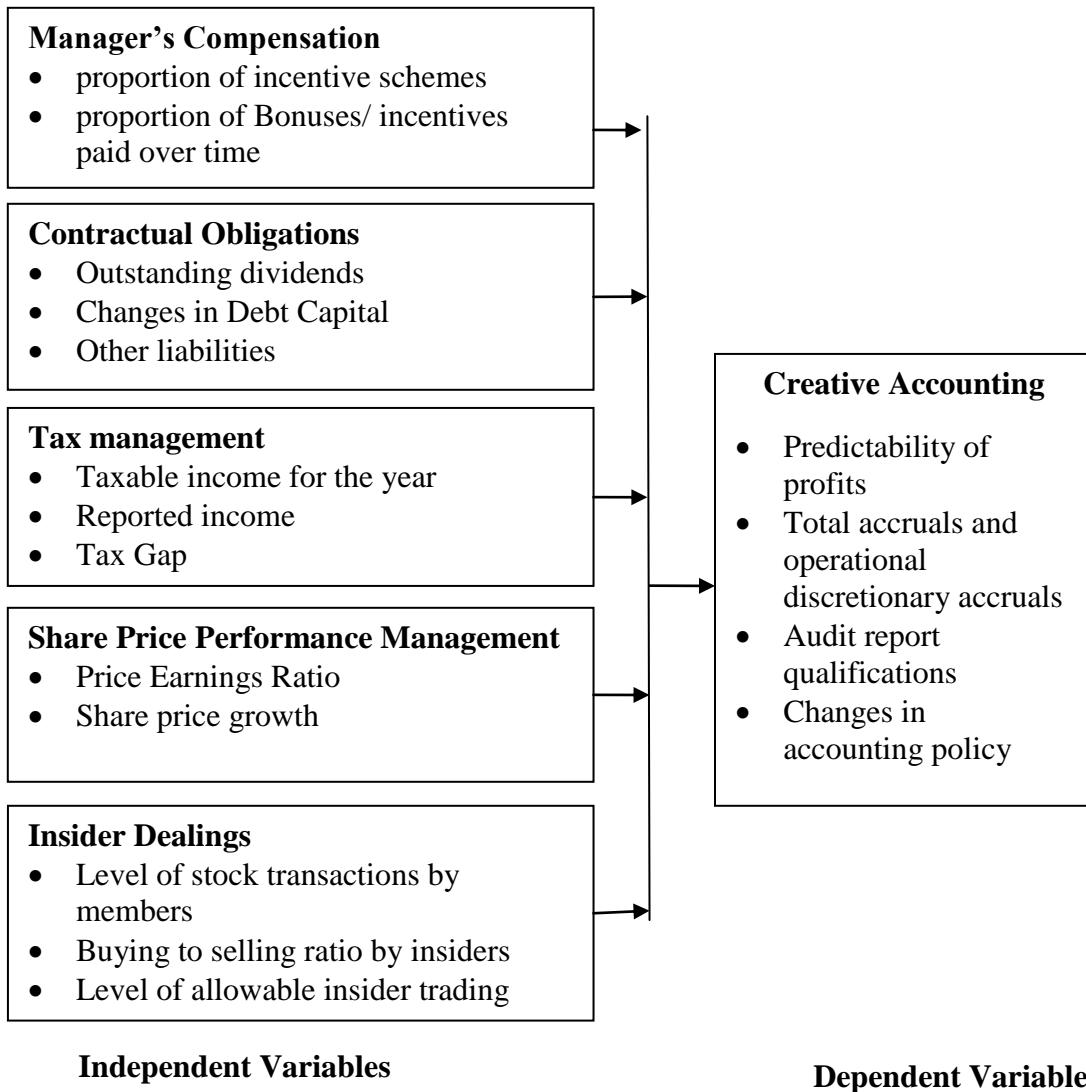
In summary all the theories discussed above are related and they all have a bearing on the creative accounting concept. Normative theories advocates for standards creation to guides financial reporting, positive accounting theories on the other hand forecasts the future happenings and expectations of the stakeholders and makes a choice of standards that favor their desired outcome (Scott, 2000). Positive accounting theories supports creative accounting which follows a pattern of three hypotheses namely bonus plan hypothesis, debt covenant hypothesis and political cost hypothesis. The conceptual framework is based on these three features. The resource dependency theory argues that manager's compensation is dependent upon the shareholders and/or investors actions (share prices) while on the other hand shareholders are dependent on manager's actions (Hillman *et al.*, 2009). This theory supports both the bonus plan hypothesis and debt covenant hypothesis under the positive accounting theories. Under the agency theory, managers are viewed as agents of the shareholders while information theory suggests that there is a possible information asymmetry between the agent and the principal (Schipper, 1989). This information asymmetry coupled with the agency problem where managers who are agents seeks their personal gain, is the recipe for creative accounting. Creative accounting follows the three hypotheses referred to by the positive accounting theories.

### **2.3 Conceptual Framework**

Conceptual framework is a visual or written product that explains graphically or in narrative form, the main things to be studied. It describes the key factors, concepts, and variables and the presumed relationship among them (Maxwel 2005). The variable that the research wishes to explain is the dependent variable. The independent variable

causes or explains changes in the dependent variable (Nachmias, 1996). In this research, creative accounting is the dependent variable.

The conceptual framework was developed on the basis of the theoretical framework explained in the immediate previous section and the literature reviewed. The conceptual framework is in line with the positive accounting theory which operates within three hypotheses of bonus plan, debt covenant and public costs. Positive Accounting theory therefore contributes first three variables in the conceptual framework which are manager's compensation, contractual obligations, and tax management. Information theory, agency theory and resource dependency theory contributes the other two variables which are Share price performance management and insider dealings. Share price performance management and insider dealing are accounting related practices which rely on the information given by the management and also deal with resources being managed under agency theory. In addition the literature also supports manager's compensation, contractual obligations, tax management, share price performance management and insider dealings as a reason for creative accounting. The relationship between these variables is presented in figure 2.1.



**Figure 2.1 Conceptual Framework**

## 2.4 Review of Variables

The study having laid a theoretical foundation setting the justification of the study arguments and a conceptual framework showing the variable relationship, a review of empirical evidence is on the accounting related practices influencing creative accounting is essential in order to explain the interactions and interrelationships evidenced different scholars. This study considered management's compensation, contractual

obligations, tax management, share price performance management and insider dealings in relation to Kenya's environment. Some practices such as income smoothing were considered to be more of forms of creative accounting rather than its causes.

#### **2.4.1 Creative Accounting**

Gosh (2010) viewed creative accounting as modification of accounting figures to what the organizations managers and directors desire by exploiting the loopholes of the existing rules and/or ignoring some of them. Baralexis, (2004) explains creative accounting as an intentional process of exploiting or violating the law or the GAAP to present financial statements according to predetermined self interests. These observations indicate that creative accounting may be legitimate or illegitimate. This study adopted Gosh (2010) as the working definition of creative accounting which suggests that creative accounting is not necessarily illegitimate. Research in Kenya has recorded increase in creativity including creative accounting (Nguthuri, Maringa, & George, 2013).

Beaudoin, Cianci and Tsakumis (2015) stated that despite regulatory reforms aimed at inhibiting aggressive financial reporting, earnings management continues to be practiced thus still raising concern to practitioners, regulators, and standard setters. Pereira and Souza (2014) observed that building effective and autonomous institutions is critical in managing creative accounting. Their study demonstrated that level of firm's independence and autonomy is associated with the degree of creative accounting. In Kenya for instance, the insurance sector in Kenya has been characterized by the collapse of a number of insurance companies largely attributed to inadequate legislative and regulatory framework and subsequently a weak financial base (Ngugi & Afande, 2015). This could also have been attributed to creative accounting and its related practices.

Mulford and Comiskey (2011) stated some of the motivations behind creative accounting which were favorable effect on share prices, management compensation and

debt covenants. Gosh (2010) further re emphasized on the determinants of creative accounting which included effect on share prices, lower corporate borrowing costs as a result of improved credit rating, incentive compensation plans for corporate officers and key employees which are based on corporate performance and political gains. Sawicki & Shrestha (2008) described insider trading as a factor that contributes to creative accounting among corporations.

Dechow *et al.* (1995) explained relationships which are central to an understanding of earnings management as accrual management. The approach that is generally used for estimating discretionary accruals is to regress total accrual on variables that proxy for normal accruals. Unexpected accruals or discretionary accruals are considered to be the unexplained (the residual) components of total accruals. The two formulas that are used are: Total accruals equals to Reported net income plus cash flows from operations; and Total accruals equals to Non-discretionary accrual plus discretionary accruals.

A study carried out by Iraya *et al.*, (2015) recommended for the need for effective corporate governance practices at senior managerial level of listed companies in Kenya. This according to their research would contribute to reduced earnings management and hence improve on actual firm liquidity and avert possible collapse of public organizations in Kenya. The recommendation implies that there is some level of creative accounting being practiced by the listed companies. Further institutional investors' may also focus on short-term earnings performance which could pressure management into boosting reported earnings through aggressive accounting (Katuse, Kiambati, Karanja & Waititu, 2013).

The study employed these formulae to detect the presence of creative accounting in the firm. The likert scales were also used to corroborate the information derived from the formulas.

## **2.4.2 Managers Compensations**

Busaule (2014) established that executive compensation is directly related to the firm's financial performance in Kenya. Managers in several companies are compensated directly in terms of salary and bonus as well as indirectly in terms of prestige, future promotions, and job security (Xie, Davidson & DaDalt, 2003). Information theory explained in Section 2.2 indicates that managers have an advantage over the shareholders concerning the information they hold and as such they have discretion as to how much information they give out. Xie *et al.* (2003) further states combination of management's discretion over reported earnings and the effect these earnings have on their compensation and benefits may be incentives for creative accounting. A study conducted by Petroni and Yanyan (2010) indicated that Chief Finance Officer (CFO) has primary responsibility in financial reporting, therefore CFO equity incentives may play a stronger role than those of the Chief Executive Officer (CEO) in earnings management. This implies that CFOs are more likely to engage in creative accounting as compared with CEOs. Petroni and Yanyan (2010) further found out that the magnitude of accruals and the likelihood of beating analyst forecasts are more sensitive to CFO equity incentives than to those of the CEO. However there are instances where both CFO and CEO join forces to engage in creative accounting to safeguard their compensation interests.

Njogu, Gekara, Waititu and Omido (2014) in their research also established that the correlation between executive compensation and creative accounting was statistically significant and positive. This led to a conclusion that the quality of executive compensation is very important because it influences creative accounting. The findings of their research agree with the previous studies that a positive and significant relationship exists between executive compensation and creative accounting.

Becker, DeFond, Jiambalvo and Subramanyam, (2010) explains that managers have inducements to manipulate earnings in order to maximize either the firm's or manager's

wealth. Contracts which are explicitly based on reported earnings encourage these incentives e.g. management compensation on the basis of share price performance, earnings per share and so on. Stock-based compensation might induce managers to increase the short-term stock price through earnings management which is a form of creative accounting (Cheng & Warfield, 2005). Mulford and Comiskey (2011) also posited that management compensation was one of the major motivations of creative accounting in many firms. Gosh (2010) further argues that incentive compensation plans for corporate officers and key employees are also recipes for creative accounting. The sentiments put across by various researchers are all in line with the positive accounting theory and more specifically on the bonus plan hypothesis.

Dutta and Qintao (2014) further suggested that the optimal pay-performance sensitivity may increase and expected managerial compensation may decrease as the manager's cost of earnings management decreases. These findings were similar to Assih, Baridwan, Kusurna, Supriyadi and Gudono (2013) who established that granting bonus as a performance incentive leads to more aggressive accounting and that bonus-grants as incentives of performance can persuade managers to get benefit from manipulating earnings reports to increase the value of the bonuses they receive.

Management compensation in this study is limited to only that portion which is bonus based, that is, that part which is dependent on the company performance. Measurement of this variable was based on the presence of bonus plans for company directors and managers along with the nature of the bonus plans. Different bonus schemes have different levels of influence on management's decisions.

#### **2.4.3 Contractual obligations**

Healy and Wahlen (1999) as cited by Fong (2006) explains creative accounting takes place when managers exercise judgment in financial reporting and in structuring transactions to adjust financial reports with an aim to either mislead some stakeholders

about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers. In some cases they may be avoiding to pay dividends while in other instances they need to borrow some loans from financial institutions. Rankings done by Baralexis, (2004) showed that the most popular reason for firms engaging in creative accounting in Greece was to borrow funds from the banks. On the other hand Ramadan (2015) was of the view that “external creditors are considered as external control tool over management’s performance”, this leads to reduction of the agency cost as well as reduction in the likelihood of practicing creative accounting or earnings management, which will reflect positively on the quality of earnings.

Amat and Gowthorpe (2004) also reasons out that creative accounting which applies to all companies normally arises since companies are subject to various forms of contractual rights, obligations and constraints from the various stakeholders based on the amounts reported in the accounts. Further contractual incentives for managers to manipulate financial accounts that have been identified include debt covenants and management compensation agreements (Han, Kang, Salter & Yoo, 2010).

Omoro, Aduda and Okiro (2015) expressed that higher net earnings reduce the probability of technical default on the debts which is proposed by debt covenant hypothesis (one of the premises of positive accounting theories), which states that “the closer a firm is to compromising their debt covenants, the more likely management is to use accounting policies that shift reported earnings from future period to the current period”. According to Njuguna and Moronge (2013), a relationship exists between agency cost of ownership and some other factors associated with managerial behavior among them debt contracts. Further Olouch, Namusonge and Onyango (2013) implied that there is an effect on the overall accruals quality on the cost of capital among the various segments of the NSE. Quality accruals, is one of the indicators of creative accounting while cost of capital encompasses the cost of debt.

Creative accounting is perpetrated through a strategy whereby managers opt for the most appropriate accounting methods in a given regulatory framework, management decisions are necessary in a strategy of avoiding the entities' rules and boundaries both organizational or legal. This strategy involves debt covenants and credit ratings (Cotlet, Nagy, Megan & Cotlet, 2012). The results of a study conducted by Demirtas and Cornaggia (2013) indicates that credit rating issuers make accounting choices and reporting decisions that lead to high accounting accruals at approximately the time of initial credit ratings. The increase in accounting accruals leading to the improved initial credit rating is followed by a reversal in the subsequent years. Demirtas and Cornaggia (2013) found this evidence to be consistent with firm's borrowing from future earnings to report the most favorable earnings pattern during initial credit rating. This helps the organization obtain funds easily from the financiers as contemplated by Baralexis (2004).

Mulford and Comiskey (2011) established that contractual obligations such as debt covenants were motivations of creative accounting in many firms. The Financial Numbers Game, creative accounting could be employed in exchange for lower corporate borrowing costs due to an improved credit rating (Gosh, 2010). This is in line with the positive accounting theory and in particular the debt covenant hypothesis where managers opt for hire current earnings so as to influence the investors and financiers.

#### **2.4.4 Tax Management**

Amat and Gowthorpe (2004) reported that the existence of tax levies based on income is one of the factors motivating creative accounting. Gosh (2010) affirmed that creative accounting may be employed in exchange for a variety of expected rewards among them being political gains. Van and Vanstraelen (2005) further argues that accounting information is designed more to meet other demands, including reduction in political costs and determination of income tax and dividend payments. As Kenya Revenue

Authority becomes more aggressive in increasing their revenue, it becomes very critical for the small firms to manage their taxes (Mucai, Kinya, Noor, & James, 2014).

McBarnet (2005) asserts that both complex fraud and complex manipulation through legal creative accounting has been brought out into the open. He expresses that one of the reasons why creative accounting is practiced is to carefully avoid taxes, therefore reducing political costs. In developing countries taxation is also a major factor encouraging creative accounting especially in instances where the taxable profit is calculated based of the accounting figures (Cotlet *et al.*, 2012).

Noronha , Zeng and Vinten (2008) in their study observed that tax considerations are very important for small and medium-sized companies, while capital market motivation is the main consideration for most listed companies in China. This means therefore that tax expense saving is a major motivation to engage in creative accounting for small and medium sized companies as compared to corporations. According to Noronha *et al.* (2008) small and medium sized companies in China have great difficulty accessing external funding hence they would engage in creative accounting in order to create tax savings. On the other hand, even large corporations engage in creative accounting in order to avoid corporate, sales and payroll taxes.

Sikka and Hampton (2005) observed that accounting firms have developed organizational structures and strategies to sell tax avoidance schemes to corporations and wealthy individuals. This disagrees with the position held by Noronha *et al* (2008) that tax avoidance induced creative accounting is a preserve of the small and medium sized companies. Reserve Bank of Zimbabwe (2006) reports indicated that, Zimbabwean banks often collapse partly as a result of creative accounting, where banking institutions creates two sets of books; one showing a strong financial status and another a different representation. The set of books showing weaker financial position is normally handed to the government authorities so as to reduce the tax burden.

Sanusi and Izedonmi (2014) enlisted the various reasons why firms engage in creative accounting and among them include tax evasion, bonus schemes and insider dealings. Lin, Lu and Zhang (2012) alluded to the fact that, tax induced earnings management is on the increase. Kamau *et al.* (2012) further suggested that tax avoidance and evasion is one of the motivators of creative accounting among the medium sized firms.

Tax management as a motivator of creative accounting is in line with the positive accounting theory and more so the political costs hypothesis. According to Desai and Dharmapala (2006) tax avoidance is highly attributed to creative accounting. Their study applied book-tax gap as a measure of tax avoidance. Book tax gap is the difference between book and taxable income.

#### **2.4.5 Share Price Performance Management**

Creative accounting may possibly help maintain or increase the share price both by reducing the level of borrowing, thus making the business appear subject to less risk, and by creating the appearance of a favorable profit trend. This subsequently helps the company to raise funds from issue of new shares, takeover bids, and resist takeover by other companies (Amat & Gowthorpe, 2004). Effiok & Eton (2012) found out that there was a positive relationship between accounts manipulation and management decisions measured by share price performance. There is a direct relationship between share price volatility and reported or predicted earnings (Muchina, Namusonge and Sakwa, 2015). This fact may motivate the management to engage in creative accounting so as to manage share prices. This implied that a company experiencing high level of accounts manipulation would enjoy high level of share piece performance. This is in line with the positive accounting theories that management may manipulate accounts, in other words perform creative accounting since they have a perceived end. The end in this case is improved share prices.

A study carried out by Baralexis (2004) showed that, Increase of stock prices or listing on the Athens Stock Exchange, was the second popular reason for firms engaging in creative accounting in Greece with the most popular reason being to borrow funds from the banks. According to Salome, Ezemoyih, and Echezonachi (2012) creative accounting affects the quality of financial reporting. This was evident in his study where there were various reported cases of share price manipulation, over statement of profit, accounts misstatement and cooking among other issues.

Mulford and Comiskey (2011) stated that favorable effect on share prices was one of the major motivations of creative accounting in many firms. This was further echoed by Gosh, (2010) who expressed that indeed firms perform accounts manipulations meaning that creative accounting in order to portray a favorable financial position which will have an effect on the share prices. Adibah Wan Ismail, Anuar Kamarudin, Van Zijl, and Dunstan (2013) further expressed that IFRS-based earnings explain more of the variation in share values. Ouma (2012) also found out that there was a connection between dividend payout which is a function of profits and the market share prices. Olweny, Namusonge and Onyango (2013) concluded that investors risk tolerance increases with individual earnings. This may motivate the managers to create accounts so as to portray favorable share price performance which means higher earnings and hence risk tolerance.

Prentice (2002) asserts that too much commitment towards maximization of share prices aggravated the already worsened condition caused by financial fraud and this led to collapse of one of the largest corporations in the world, Enron Corporation. The directors of Enron Corporation engaged in creative accounting to paint a favorable picture of the company's financial status and as a result affecting the share prices positively. As a result many individuals invested in the company and when it collapsed they lost greatly.

Effiok and Eton (2012) based share price performance on stock exchange prices in his study. On the other hand Baralexis, (2004) did a ranking of the various motivations behind creative accounting. Share price performance in this study adopted the method used by Effiok and Eton (2012). It was measured using average annual share price of the companies' shares for the year under the study.

#### **2.4.6 Insider Dealings**

Insider dealing refers to a situation where an insider or a related party trades based on price sensitive non-public information obtained during the performance of the assigned duties at the corporation, it also involves breach of trust and confidence or where the confidential information was misappropriated from the company (Bewaji, 2012). In banking sector for example management may be issued with loan facilities, but they have a higher rate of default which is incorrect application of the accounting principle of prudence (Njeru, Njeru, Memba & Tirimba, 2015). The first insider trading charges to be brought about in Kenya were in 2008 when the market regulator investigated possible insider trading involving the shares of a retail supermarket chain, Uchumi Limited and recommended to the Attorney General the prosecution of former chief executive of Kenya Commercial Bank who was an insider to Uchumi Ltd alongside a businessman (Akivaga, 2011).

The directors engaging in 'insider dealing' in their company's shares may use creative accounting as a strategy to delay the release of information for the market, thus enhancing their opportunity to gain advantage from inside knowledge (Amat and Gowthorpe, 2004). In creative accounting companies sometimes make the figures in financial documents appear more attractive than they really are (Trappe and Tullis, 2006). Availability of alternative treatments in financial reporting weakens reliability of financial information and provides scope for creative accounting (Greer & Tonge, 2006). Waweru (2014) also observed that insider dealing activities are related to creative accounting, all of which reduces the quality of corporate governance in Sub-Saharan

Africa. Iraya *et, al* (2015) also stated the shareholding by insiders has a negative effect on earnings management. Beneish, Press, and Vargus (2012) established a correlation between insider trading incentives for income and increasing earnings management.

Sawicki and Shrestha (2008) analyzed the relationship between insider trading and earnings management, especially considering whether discretionary accruals are associated with insider trading and valuation. On the basis of their investigation they concluded that there was strong evidence of insiders downward managing the earnings when buying and managing earnings upward when selling shares.

Insiders tend to sell shares in restating firms before the financial restatement announcements; they will trade much ahead of the announcements and will refrain from trading very close to the announcements (Huddart, Ke & Shi, 2007). Insider trading in this study was measured using changes in shareholding by the members of the organization. Too much disposal of shares or excessive purchase of shares by employees and directors of the company was considered as acts of insider trading.

## **2.5 Critique of Existing Literature**

The literature reviewed indicated that quite a lot have been documented on creative accounting. Balaciu and Pop (2008) highlighted the various motivations behind practice of creative accounting more so in Bangladesh. Their study was in line with the three hypotheses advanced by positive accounting theory. However their study only provided a theoretical perspective and no measurements were carried out to investigate the factors further, it was a form of literature review. Sen and Inanga (2005) singled out the root cause of creative accounting as the conflict of interest between management and the various users of accounting information. Their study however focused more on the effects and not the causes. The methodology used by Sen and Inanga (2005) to measure creative accounting range from dichotomous scale to likert scales. He applied a range of diverse questions to achieve the objectives of his study.

Baralexis (2004) confirms that creative accounting is widely practiced in Greece and carried out further studies on the techniques mostly applied to manipulate financial reports. The study covered less of the determinants and the methodology adopted was mostly rankings of various variables. Smith (1998) carried out studies on creative accounting which mainly centered on the techniques involved; the study used comparative analysis among various auditors to make conclusions. Dechow *et al.* (2011) in a detailed research expanded on the techniques employed in engaging creative accounting as well as how to detect such practices; the researchers employed a time series methodology and the earnings management model to estimate misstatements in the accounting information. Gosh (2010) also identified a number of factors that motivates creative accounting; his study employed a literature review mode and no measurements were used to explore the creative accounting motives determined.

Shah and Butt (2011) explained some motivations of creative accounting to include: to meet internal targets, meet external expectations, provide income smoothing, window dressing for an IPO or a loan, taxation and change in management. They used discussion based model which applies past references and experiences to link governance with creative accounting. No measurements were made to further investigate link between governance and creative accounting.

Rabin (2005) discussed the factors that influence auditor's attitude toward creative accounting. The study looked into whether auditors' attitudes towards creative accounting was related to ethical judgment, auditors evaluation of the quality of financial reporting and their opinions on factors that influence financial statement's preparers to use aggressive accounting techniques. There was no analysis on the management practices influencing creative accounting but on determinants of auditor's perceptions on creative accounting. The methodology used to analyze data was linear regression analysis and factor analysis.

Kassem (2012) attempts to provide a distinction between fraud and creative accounting also reoffered to as earnings management. Fraud is material false statement whose intent is to deceive and persuade reliance on the false statement by the victim. Earnings management involves using the flexibility within accounting regulatory framework to manage the accounts in order to deliver a predetermined profit or attain a specific objective. The research was literature based hence no measurement of variables was involved.

Effiok and Eton (2012) concluded that creative accounting affects a firm's share price and capital market performance as a result of financial statements manipulation. It also affects management decision to acquire new assets or even replace existing ones. The creative accounting may also lead to tax evasion and may also cause investors to lose their hard earned money. The researcher adopted multiple regressions model for this study.

Amat and Gowthorpe (2004) carried out a literature review on the various ways in which creative accounting can be undertaken and sums up some empirical research on the nature and incidence of creative accounting. The ethical dimension of creative accounting is also discussed, drawing evidence from several empirical studies. Demirtas and Cornaggia (2013) carried out multivariate regression analyses which suggested that abnormal current accounting accruals were significantly positively related to initial credit ratings. Credit rating is considered as one of the contributing factor towards creative accounting.

Salome *et al.* (2012) observed that notwithstanding the international and local scandals received, the accounting officers still involve themselves in misrepresentation and malfalsification of figures of financial statement. The study also found out that the accountants and auditors indulge in creative accounting through profit eroding mechanisms in order to attract investors and resources, however the deceptive or fraudulent management practices often results to drastic consequences.

The research data was analyzed using simple percentage method and pie chart for the research question, and t – test statistics for the hypotheses testing.

Idris *et al.* (2012) studied the practice of creative accounting, its nature, techniques, and prevention in Nigeria. They viewed creative accounting as the exploitation of accounting concepts and GAAP in order to gain various benefits and for deceitful purposes. The survey data was analyzed using the Chi-square statistic in the Predictive Analytic Software. The results showed that the practice of creative accounting was always a calculated attempt to gain unjustifiable benefit by management and also to mislead the stakeholders of the firm, by misrepresenting the financial position of the firm.

Elias (2002) established that earnings management behavior is a concern for standard-setters, regulators and the accounting profession. The study examined a sample of accounting practitioners, faculty and students and found out that there was a positive correlation between social responsibility, idealism, focus on long-term gains, and the ethical perception of earnings management. They also found a negative association between focus on short-term gains, relativism and the ethical perception of this earnings management practice. This study however did not deal with the issues on management practices influencing creative accounting.

Balaciu and Pop (2008) in their research highlighted some of the determinants of creative accounting which were in line with the positive accounting theory. However their study only highlights the determinants and no detailed analysis carried out. The determinants highlighted in their study did not include share price and insider dealings which also features in other studies. Sen and Inanga (2005) also states one of the determinants to be share price performance. Many other scholars have studied determinants of creative accounting but this study used a different approach in the analysis that is, the multiple regression approach was employed. In addition several other studies have been carried out on techniques used in creative accounting and the ways of eliminating it. This study empirically tested the management practices

influencing creative accounting identified by the various studies and tested in Kenya's environment. This research therefore adds value to the existing body of knowledge on the management practices influencing creative accounting among major corporations in Kenya and similar countries.

## **2.6 Research Gaps**

Studies on creative accounting have gained momentum over the recent years. Studies have been done on creative accounting in public sector, for example Melo, Pereira and Souza (2014) researched on why some governments resort to creative accounting. Reischmann (2015) also studied creative accounting and electoral motives based on the public sector. Vyas, Ambadkar, and Bhargavaf (2015) carried out their research on truth and fairness of financial statements in relation to creative accounting based on the private sector. The study by Tassadaq and Malik (2015) was also based on the corporate world. These studies mainly dealt with existence, techniques and consequences of creative accounting in various countries. This study was based on private sector and carried out a comprehensive analysis of the management practices influencing creative accounting using a multiple regression model approach.

The review of literature suggests that there are researches that have been carried out mostly from United Kingdom, USA (Vermeer *et al.*, 2014), Malaysia (Abuaddous *et al.*, 2014), Iran, India (Bhasin, 2015), Nigeria (Sanusi & Izedomni, 2014), among other studies. Not much of the studies have been carried out on the practices influencing creative accounting from a Kenya's perspective. This study contributed towards filling the knowledge gap by exploring the practices influencing creative accounting among large corporations in Kenya.

There have been a number of studies on creative accounting and its determinants (Amat & Gowthorpe, 2004; Effiok & Eton, 2012; Shah & Butt, 2011; Balaciu & Pop, 2008) all of which are based on positive accounting theories. Kuria (2013) affirmed that tax

avoidance is one of the motivations of creative accounting in Kenya a fact that was corroborated by Kamau, Mutiso and Ngui (2012). Waweru and Kiro (2013) established that high leverage firms are more likely to engage in creative accounting. A study carried out by Stulb (2013) showed that 53% of the companies promote their businesses by cooking the financial statements. The research gap that was addressed by this study is that most studies carried in Kenya did not exhaustively deal with the practices influencing creative accounting. For example, Njogu *et al.* (2014) only concentrated on the executive compensation and its influence on creative accounting. The studies carried out worldwide were based on the positive accounting theory on the basis of which management compensation, contractual obligations and tax management practices were derived. This study included share price performance management and insider dealings which are not widely covered by the earlier studies.

## **2.7 Summary**

The literature review indicated that most studies carried out in the area of creative accounting were in line with the positive accounting theories which put across three hypotheses of bonus plans, debt covenants and political costs. Other studies also involved one theory for each study. This study was in addition to positive accounting theories included two other factors which are in line with other two theories.

The literature review identified a number of determinants and practices of creative accounting in Kenya. These practices were investigated further so as to establish the strength and nature of their effect on the practice of creative accounting. These practices include: Share Price Performance management, where the managers manipulate the financial statements so as to fool the stock markets; Manager's Compensation, where the managers' motivations are pegged on performance of the firm; Contractual Obligations, which is in line with the debt covenant hypothesis; Tax management, which is a means to reduce the political costs; and Insider Dealings, where the management uses creative accounting as a tool to delay release of information to the public.

This research adds value to the existing body of knowledge more so on the management practices influencing creative accounting in major corporations in Kenya and similar countries.

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter describes the methods and procedures that were followed in the conduct of the study. Specifically, the discussion is structured around the research design, population under study, sample and sampling technique, data collection instruments, data collection procedure, pilot study, data analysis and presentation.

### **3.2 Research Design**

This research employed a mixed research design which is a combination of descriptive design, causal design and cross-sectional design. Research design is defined as the conceptual structure within which research is conducted; it comprises of the overall plan for the collection, measurement and analysis of data (Kothari, 2008). It assists the study to determine the objectives of research, subjects of research, the sample size, the data to be collected, the procedures for collecting and recording that data, the procedures for analyzing that data and how the data is interpreted and presented (Bryman, 2012). Descriptive design advocates for measurement of variables and hence will form the basis for causal analysis. According to Shukla (2008) causal analysis was employed by the study to test hypothesis and to answer the research questions. The main research design employed by the study was a cross-sectional survey.

### **3.3 Target Population**

Sampling theory requires that all possible elements or units in the target population be identified (Mugenda, 2008). The study targeted a population of 64 companies listed at the Nairobi Securities Exchange. The research targets these firms since they are public in nature and their shares are traded publicly hence they may attract large number of

investors. Any form of negative effects of creative accounting by these firms may affect a large number of shareholders. The 64 companies listed at the Nairobi Securities Exchange (NSE, 2015) are categorized into the following sectors.

**Table 3.1 – Target Population**

Sector	No of Companies
Agricultural	7
Automobiles & Accessories	3
Banking	11
Commercial & Services	10
Construction & Allied	5
Energy and Petroleum	5
Insurance	6
Investment	6
Manufacturing & Allied	10
Telecommunication & Technology	1
<b>Total</b>	<b>64</b>

Source: (NSE, 2015)

The table shows that there are a total of 64 firms listed at Nairobi securities exchange. The firms are categorized into ten sectors with each sector having a range of between one and eleven firms. The average number of firms per sector is six. The details of the specific firms are contained on the sampling frame attached as an appendix to this thesis.

### **3.4 Sampling and Sample size**

The sampling frame is the list or the quasi list of elements from which a probability sample is selected (Babbie, 2012). The sampling frame for this study is derived from the website of Nairobi Securities Exchange (NSE). The Nairobi Securities Exchange has a total of 64 listed companies (NSE, 2015), which was used as the sampling frame for this research. The research considers firms listed at NSE as the major corporations in Kenya.

Further, one of the practices influencing creative accounting identified includes share price performance, a factor that best suits the companies that are listed at Nairobi Securities Exchange.

Morris (2004) elucidates that when dealing with large populations, the size of the sample is determined by using the normal approximation to the binomial distribution. He argued that approximation is very accurate when the population is large, and the sample size is small. He further expressed that determination of sample size for small populations is best achieved when Study uses the normal approximation to the hyper geometric distribution.

The population in this study is 64 firms listed at NSE, which is considered a small population. As explained in the previous paragraph, the sample size for this study then followed a hyper geometric distribution whose formula is as follows:

$$n = \frac{NZ^2pq}{\varepsilon^2(N - 1) + Z^2pq}$$

Where:

n	=	the required sample size
N	=	the population size
p and q	=	the population proportions. (If you don't know what these, are set them each to 0.5.)
z	=	the value that specifies the level of confidence you want in your confidence interval when you analyze your data. Typical levels of confidence for surveys are 95%, in which case z is set to 1.96.
$\varepsilon$	=	sets the accuracy of your sample proportions. This study adopted an accuracy of plus or minus 10%, and then $\varepsilon$ is set to 0.1.

The sample size using the above formula is 38.64 which is approximated to 39 corporations. The sampling technique that was employed to determine this sample is multi stage stratified sampling. Since the population is already grouped into sectors, a sample was selected from each sector so that the overall sample would be representative. Random sampling technique was used to sample elements within the strata or sectors. The research studied all the elements in sectors which had fewer companies. The study interviewed three members from the company who were: company managers, accountants and internal auditors in all the sampled companies. The distribution of the sample was as indicated in table 3.2.

**Table 3.2 – Sample Size**

Sector	No of Companies	Sample Size
Agricultural	7	4
Automobiles & Accessories	3	2
Banking	11	7
Commercial & Services	10	6
Construction & Allied	5	3
Energy and Petroleum	5	3
Insurance	6	4
Investment	6	3
Manufacturing & Allied	10	6
Telecommunication & Technology	1	1
<b>Total</b>	<b>64</b>	<b>39</b>

### 3.5 Data Collection Methods

The study collected both primary and secondary data using the methods explained in the subsequent subsections.

### **3.5.1 Primary Data**

The method that was employed to collect primary data was questionnaires. However for respondents who needed clarification, interviews were carried out as guided by the questionnaire. The questions in the questionnaire were largely structured implying that all the questions in the questionnaire except one were closed ended. Some of the variables were measured using Likert scales since they are qualitative in nature. This allowed the study to accommodate the perceptions of the respondents as well as increase accuracy of the data collection. Closed ended questions makes data analysis easier while the open ended question provided additional evidence to what is obtained from the closed ended questions. The study interviewed some of the target respondents as guided by the questionnaire. The questionnaire used for this study is attached as appendix 1.

### **3.5.2 Secondary Data**

Secondary data means data that are already available, that is, they refer to the data which have already been collected and analyzed by someone else (Kothari, 2008). The study also analyzed the financial statements for the year 2013 and 2014 of the selected firms so as to establish the discretionary accruals which are one of the indicators of creative accounting. Discretionary accruals requires data on net profits, change in sales, change in receivables, cash flow from operations, average total assets and gross property plant and equipment. The review of auditor reports also formed part of the secondary data analysis. Secondary data was compared with the primary data during the analysis so as to get a bigger view of the creative accounting situation in Kenya. The secondary data was also used to triangulate the information obtained from primary data.

## **3.6 Data Collection Procedure**

The data was collected using questionnaire issued to company managers, accountants and internal auditors; and information recorded in financial statements. The study interviewed some of the target respondents as guided by the questionnaire. Research

assistants were engaged to assist in data collection. The Research assistants were thoroughly trained both in interpretations of responses from respondents and also in the procedure of administration of the questionnaire. The responses given by the three company officials were recorded separately for easier analysis. The study also obtained the audited financial statements and external audit reports for the year 2013 and 2014, together with their corresponding audit reports. The data from managers, accountants and internal auditors was compared with the information obtained from the financial statements analysis to check for consistency.

### **3.7 Pilot Study**

A pilot study is an initial test of one or more components of a survey which helps reveal the hidden problems prior to the administration of the survey. A pilot test was carried out on the questionnaire by sharing it to some of the colleagues at workplace, and some of the target respondents for this research. The results of the pilot tests assisted the study to refine the questions and to fine tune the questions so as to add value to the research.

Pilot testing is a form of mini survey which involves testing the entire research instrument so as to help format the questions, estimate the length of the questionnaire and improve on the efficiency of data collection (Miller & Yang, 2007). A pilot study was carried out in order to assist the study to identify more questions that don't make sense to participants, or problems with the questionnaire that might lead to biased answers. A pilot test was conducted by the study to test on the reliability and validity of the questionnaire since it has partly been designed by the study and therefore has not been used before. The Cronbatch alpha was then computed to confirm the reliability of the questionnaire. According to Kline (1999) a rule of thumb in using Cronbach alpha indicates that a coefficient of between 70% and 80% is acceptable. The reliability test results were also corroborated by other tests such as Split-Half (odd-even) Correlation, Spearman-Brown Prophecy and KR 21 tests. Spearman-Brown Prophecy and KR 21

coefficients which are closer to 1, which is the maximum limit for correlation coefficient, representing perfect correlation are acceptable.

### **3.8 Data Analysis and Presentation**

The data in this study was analyzed both quantitatively and qualitatively using SPSS version 20. The closed ended questions in the questionnaire were structured and coded so as to make the data analysis easier. The qualitative data collected using the open ended question was analyzed using Content Analysis technique so as to identify the main ideas provided by the respondents. The data collected was cleaned in order to eliminate the apparent errors.

A descriptive statistics analysis was carried out on the data collected to summarize variables in terms of central tendency and measures of dispersion such as mean, skewness, kurtosis and standard deviation. The Reliability test was carried out using Cronbach's alpha. Pearson's Product correlation, ANOVA tests was performed using SPSS. The linear regression analysis was used to prove the causality between Independent variables on Dependent variable. ANOVA tests were useful in analyzing the differences between datasets as collected from managers, accountants, and internal auditors.

#### **3.8.1 Multiple Regression Analysis**

Hypothesis testing, correlation analysis, regression analysis and data comparisons were carried out to come up with the research conclusions. Data was presented in the form of tables, graphs and narratives.

The following Research model was tested using multiple regression analysis.

$$CA = \alpha + \beta_1 * MC + \beta_2 * CO + \beta_3 * TM + \beta_4 * SPP + \beta_5 * ID + \epsilon$$

Where            CA = Creative Accounting  
                   MC = Manager's Compensation  
                   CO = Contractual Obligations  
                   TM = Tax management  
                   SPP = Share Price Performance Management  
                   ID = Insider Dealings  
                    $\alpha$  = Regression coefficient (Y Intercept)  
                    $\beta_i$  = Regression Coefficients  
                    $\epsilon$  = Error term

In applying Regression Analysis to examine the regression equation the following hypothesis was tested.

$$H_0: \beta_{iz} = 0$$

$$H_1: \beta_{iz} \neq 0$$

Rejection of  $H_0$  and acceptance of  $H_1$  at the 5% level of significance confirms the existence of a moderating (interaction) effect.

### **3.8.2 Variables Measurement**

Each of the variables was measured starting with the dependent variable. Creative Accounting means the alteration of accounting figures from what they actually are to what perpetrators desire by exploiting the loopholes of the existing rules and/or ignoring some or all of them. Creative accounting was measured mainly using a relationship between the net income and cash from operations as depicted by modified Jones Model. Qualifications of audit report and changes in accounting policies were also used as indicators of creative accounting. Direct likert scale questions were also asked to the

respondents in order to gauge the perception of the respondents on the practice of creative accounting in their respective companies.

Manager's Compensation refers to the direct and indirect benefits given to managers based on their performance or the firm's performance e.g. bonuses. Manager's compensation was measured using annual bonuses as well as remunerations and allowances to the senior management and board. Direct likert scale questions were also asked to the respondents in order to gauge the perception of the respondents on the level of management's remuneration and its relation to creative accounting in their respective companies.

Contractual Obligations refers to something that a person is officially required to do through having signed an agreement to do. Managers of a company for example are under contractual obligation to run a profitable organization on behalf of the shareholders. Contractual obligations were measured based on outstanding dividends, interests and additional capital. Direct likert scale questions were also asked to the respondents in order to gauge the perception of the respondents on the level of debt covenants /contractual obligations and its relation to creative accounting in their respective companies.

Tax management may be viewed as a logical examination of a financial position or plan from a tax perspective, to align financial goals with tax efficiency planning. The purpose of tax planning is to discover how to accomplish all of the other elements of a financial plan in the most tax-efficient manner possible. Tax management was computed on the basis of a relationship between annual reported income and the computed taxable income. The deference there of is referred to as tax gap. Direct likert scale questions were also asked to the respondents in order to gauge the perception of the respondents on the level of tax management and its relation to creative accounting in their respective companies.

Share Price Performance is a measure of the returns on shares over a period of time. In most cases it is based on a Stock Exchange Index. Share price performance management was evaluated using the average share prices for the company. Direct likert scale questions were also asked to the respondents in order to gauge the perception of the respondents on the level of share price performance management and its relation to creative accounting in their respective companies.

Insider Dealings refers to an arrangement where an insider or a related party trades based on price sensitive non-public information obtained during the performance of the assigned duties at the corporation, it also involves breach of trust and confidence or where the confidential information was misappropriated from the company. Finally insider dealings were measured using the value of annual shares sold by members as well as value of shares purchased by members. It was estimated using change in value of member's shares transaction. Direct likert scale questions were also asked to the respondents in order to gauge the perception of the respondents on the level of insider dealings and its relation to creative accounting in their respective companies.

## **CHAPTER FOUR**

### **RESEARCH RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter describes the findings and discussion of results of the study on the management practices and creative accounting among corporations listed at NSE in Kenya. The data collected in this study is evaluated, discussed and inferences made, in an effort to address the specific objectives of the study. Descriptive and inferential statistics were used to analyze the data on each variable. Data is further presented in the form of frequency distribution tables and various types of charts to facilitate description and explanation of the study findings. The inferential statistical analysis was conducted for the purposes of testing hypothesis that were stated in chapter one and determining the relationship between independent, moderating and dependent variables.

#### **4.2 Response Rate**

The target population for the study was three members of senior management from 64 Firms listed at NSE. The sample was picked on the basis of a formula by Morris (2004), which was in line with the Central Limit Theorem in statistical theory which implies that any sample equal to or greater than 30 is representative enough irrespective of the population size. Consequently, the research targeted a sample of 39 companies listed at the Nairobi Securities Exchange. Interviews were conducted and questionnaires distributed to accountant, internal auditor and a manager in each of the company. The study managed to obtain responses from the targeted sample. The response rate therefore represents 100% of the originally targeted sample. Therefore sample size for this study for the purpose of analysis is 3 questionnaires in each of 39 companies sampled totaling to 117 responses. Use of three questionnaires from different professionals was a way of triangulating data from the respondent since the questionnaire also contained some direct questions.

**Table 4.1 Responses as per Sector of the Firm**

<b>SECTOR</b>	<b>NO. OF LISTED FIRMS</b>	<b>NO. OF RESPOND ENTS</b>	<b>PERCENT</b>
Agricultural	4	12	10.26
Automobiles & Accessories	2	6	5.13
Banking	7	21	17.95
Commercial & Services	6	18	15.38
Construction & Allied	3	9	7.69
Energy and Petroleum	3	9	7.69
Insurance	4	12	10.26
Investment	3	9	7.69
Manufacturing & Allied	6	18	15.38
Telecommunication & Technology	1	3	2.56
<b>Total</b>	<b>39</b>	<b>117</b>	<b>100.00</b>

The study showed that 12 (10.26%) of the respondents were from Agricultural sector, 6 (5.13%) from Automobile and Accessories, 21 (17.95%) from Banking sector and 18 (15.58%) from Commercial and Services sector. Nine (7.69%) were from Construction and Allied, 9 (7.69%) from Energy and Petroleum, 12 (10.26%) from Insurance sector. Nine (7.69%) were from Investment and 18 (15.38%) from Manufacturing and Allied sector. Telecommunication and Technology accounted for 3 (2.56%) of the sample. The respondents were from varied sectors, both service providers and commodity providers, therefore giving a good representation for firms engaging in creative accounting. The sample size per sector was dependent on the number of companies in the sector.

### **4.3 Reliability Analysis**

The study conducted a pilot test analysis to ascertain if the research instrument would bring out reliable information. Reliability is the measure of internal consistency of data captured by questionnaires. The pre-test was conducted on 10 Corporations listed at

Nairobi Securities Exchange. In each of the company three questionnaires were filled by the management, accountant, and the internal auditor.

**Table 4.2: Pilot study results per variable**

Variable	Cronbach Alpha	KR21
creative Accounting	.807	.927
Managers Compensation	.856	.953
Contractual obligations	.899	.981
Tax Management	.874	.969
Share Prices Performance Management	.843	.947
Insider Dealings	.832	.930
Overall	.782	.921

The study measured the reliability through the use of Cronbach Alpha ( $\alpha$ ) which established a threshold at an alpha value of 0.7 (Kline, 1999). The analysis established that almost all the sections and questions achieved a Cronbatch alpha of 0.8 and above. The study also assessed the responses and non-responses per question to determine if there were any technical snags with the questions asked and established none since all the questions meant to collect primary data were responded to. Further all the questions achieved the minimum required item total correlation. The detailed pilot study report is an annex to this thesis.

#### **4.4 Difference between various categories of respondents**

The study conducted a hypothesis test of difference between means to ascertain if there was a significant difference between the various categories of respondents that is, accountants, internal auditors and managers. Null hypothesis used in the analysis of the

difference between means is  $H_0: \bar{X}_1 = \bar{X}_2$  ( $H_1: \bar{X}_1 \neq \bar{X}_2$ ). The formula used to calculate the t value (which was compared with the critical t of 2.021) was as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_p^2}{n_1} + \frac{s_p^2}{n_2}}}$$

The result of calculated t on difference between internal auditors and accountants computed on the basis of the above formula was 0.963 (less than critical t of 2.021). This implies that there was no significant difference between the two samples, one obtained from accountants and the other one from the internal auditors. This therefore means that the responses from internal auditors were reliably consistent with responses from the accountants.

The result of calculated t on difference between internal auditors and managers computed on the basis of the above formula was 1.298 (less than critical t of 2.021). This implies that there was no significant difference between the two samples, one obtained from managers and the other one from the internal auditors. This therefore means that the responses from internal auditors were reliably consistent with responses obtained from the managers.

The result of calculated t on difference between accountants and managers computed on the basis of the above formula was 0.313 (less than critical t of 2.021). This implies that there was no significant difference between the two samples, one obtained from accountants and the other one from the managers. This therefore means that the responses from managers were dependably consistent with responses from the accountants.

On the overall, there was higher difference between the means of the internal auditors and the other groups (accountants and managers) as compared to accountants and

managers as indicated by the calculated t values. However the difference between the means of samples from various categories of respondents was not significant. This meant that there was a significant degree of consistency of responses from the different respondents obtained from the same firm. This was also confirmed by Pearson Correlation Coefficient of 0.73, 0.78 and 0.8 for internal auditors and accountants; internal auditors and managers; and accountants and managers respectively. Therefore, the study resolved that all the questionnaires should be used for the study since there were no significant inconsistencies in responses from the three categories.

## **4.5 Descriptive Statistics**

This section presents the descriptive analysis of the findings on the various management practices and creative accounting among corporations listed at NSE which include manager's compensation, contractual obligations, tax management, share price performance management and insider dealings. Descriptive statistics were used to describe the phenomenon in question and enable the study to come up with conclusions about the characteristics of data used in order to progress to inferential statistics.

### **4.5.1 Managers Compensation**

The study sought to find out whether managers compensation was a practice that influence the creative accounting among the companies listed at the NSE. The study believed that manager's compensation may persuade the management to desire high profits for the firm so as to increase their personal benefits.

#### **a) Managers compensation depends on the firms profitability**

The respondents were required to indicate the level of agreement on whether Managers compensation depends on the firm's profitability. This question was meant to capture the respondent's perception on the level of manager's compensation and its relation with creative accounting. The findings are depicted by table 4.3.

**Table 4.3: Managers compensation depends on the firms profitability**

Response	Frequency	Percent
Strongly Agree	10	8.55
Agree	27	23.08
Neutral	26	22.22
Disagree	39	33.33
Strongly Disagree	15	12.82
<b>Total</b>	<b>117</b>	<b>100</b>

The table depicts that 8.55% of the respondents strongly agree that Managers compensation dependent on the firm's profitability and 23.08% agree. 33.33% of respondents disagree and 12.82% strongly disagree. The results show that whilst there is an overall 31.63% agreement level, there was also a 22.22% neutral response, and a 46.15% disagreement with the statement. These results showed an agreement index of -14.52% (31.63% - 46.15%) showing the degree of agreement with the statement. Negative index means that the responses were skewed towards disagreement. This implied that more respondents were of the perception that manager's compensation does not depend on the firm's profitability. The study results differed with findings by Njogu *et al.* (2014) who established that there was a significant relationship between management's earnings and creative accounting. The results were also corroborated by Dutta and Qintao (2014) who suggested that decrease in performance based management leads to a reduction in earnings management. The results were also in line with the positive accounting theories which associate creative accounting with bonus schemes and other management compensations.

### b) Managers compensation Leads to Creative Accounting

The respondents were required to indicate the level of agreement on whether Managers compensation may lead to creative accounting. This question was meant to capture the

respondent's perception on the level of manager's compensation and its relation with creative accounting. The findings are depicted by table 4.4.

**Table 4.4: Managers compensation leads to creative accounting**

Response	Frequency	Percent
Strongly Agree	24	20.51
Agree	59	50.43
Neutral	24	20.51
Disagree	7	5.98
Strongly Disagree	3	2.56
<b>TOTAL</b>	<b>117</b>	<b>100</b>

The study indicated that 20.51% of the respondents strongly agree that Manager's compensation may lead to creative accounting and 50.43% agree while 20.51% neither agree nor disagree, 5.98% disagree and 2.56% strongly disagree. These results showed an agreement index 62.4% (70.94% - 8.54%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was further confirmed by the fact that the majority of the respondents (70.94%) were of the opinion that managers compensation could indeed lead to creative accounting, therefore suggesting that pegging manager's benefits to the firm's profitability is a practice that influence creative accounting. The findings from this question were in line with Assih *et al.* (2013) who found out that granting incentive to management in terms of performance bonuses leads to aggressive accounting otherwise referred to as creative accounting.

### c) Managers compensation have been fairly stable

The respondents were required to indicate the level of agreement on whether Managers compensation was fairly stable for the last ten years. This question was aimed at capturing the respondent's perception on the level of manager's compensation and its

relation with creative accounting. Bonuses are one of the most common Pay for Performance (PFP) practices implemented in organizations (Pohler & Schmidt, 2015), this means that stable bonuses is a reflection of stable firm's performance. The findings are depicted by table 4.5

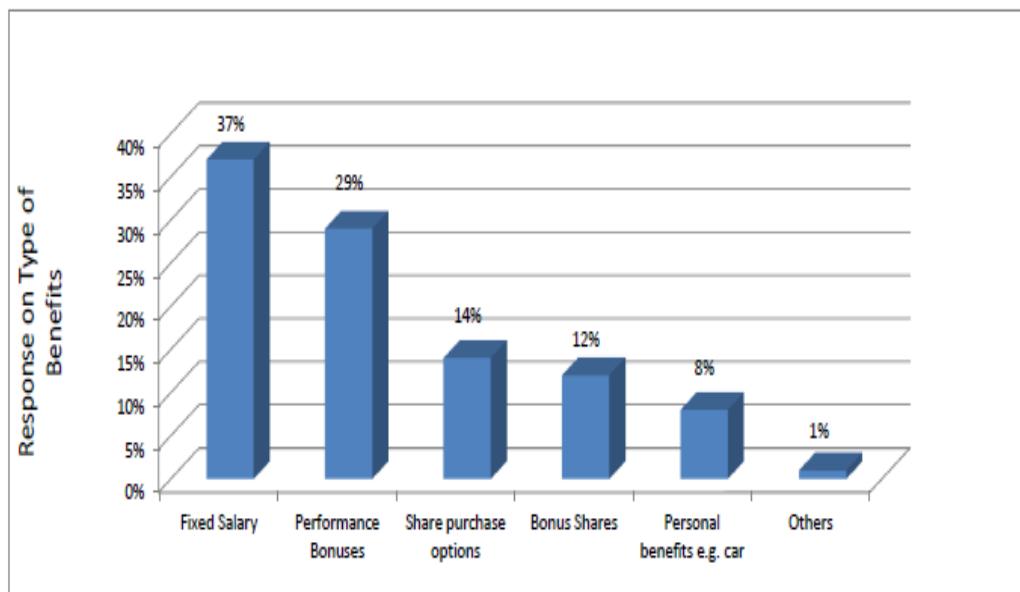
**Table 4.5: Managers compensation have been fairly stable**

<b>RESPONSE</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
Strongly Agree	30	25.64
Agree	54	46.15
Neutral	21	17.95
Disagree	10	8.55
Strongly Disagree	2	1.71
<b>TOTAL</b>	<b>117</b>	<b>100</b>

The study indicated that 25.64% of the respondents strongly agree that Manager's compensation was fairly stable in their firms for the last ten years and 46.15% agree while 17.95% were neutral, 8.55% disagree and 1.71% strongly disagrees. These results showed an agreement index 61.53% (71.79% - 10.26%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was corroborated by the fact that majority of the respondents (71.79%) were of the view that managers compensation for the last ten years have been fairly stable, therefore suggesting that there were no major or significant increases or decreases in the level of managers salaries and other benefits. These results agreed with findings by Pohler and Schmidt (2015) who viewed that poor pay strains employee performance. This implies that fairly stable earnings would play a key role in helping reduce creative accounting while on the other hand it could be an indicator of creative accounting.

#### d) Kinds of benefits accruing to Top level management

The respondents were required to indicate the kind of benefits that accrues to top level management of the company. The choices provided for the respondents included Fixed Salary, Performance Bonuses, Share Purchase Options, Bonus shares, personal benefits e.g. Car and Others. The respondents were required to tick all the options that were applicable to their firms. The findings are depicted by Fig 4.1



**Figure 4.1: Kind of Benefits to managers**

The results of the study showed that 37% of the respondents chose fixed salary option, 29% chose Performance Bonuses, 14% selected Share Purchase Options and 12% picked bonus shares. Eight (8%) selected personal benefits e.g. car and 1% selected others option. Analysis of the responses showed that all respondents picked between 1 and 5 options. Further data analysis is based on this question in the subsequent analysis is based on the number of options selected, that is, the number of benefits that accrue to the top level managers and directors. Otto (2014) however found out that the value of

bonus payments is higher than the value of fixed salary paid to CEOs in USA. The situation in Kenya is however different.

#### e) Overall Managers Compensation

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to influence on creative accounting by the manager's compensation and the number of benefits to the top level management. The descriptive analysis of the weighted average responses is as indicated in table 4.6

**Table 4. 6 Descriptive Results – Managers Compensation**

Managers Compensation	Statistic
Mean	3.9658
Standard Error	0.0916
Median	4
Mode	4
Standard Deviation	0.9907
Sample Variance	0.9816
Kurtosis	-0.1965
Skewness	-0.7424
Range	4
Minimum	1
Maximum	5
Sum	464
Count	117

The results showed a weighted mean of 3.97 ( $\approx 4$ ) which is above the average mark of 3.0. The standard deviation and standard error were also small implying that most of the responses scores were not far from the mean score. This skewness statistic shows the managers compensation data is a negatively skewed distribution meaning that it is skewed to the left-hand side. The kurtosis of the distribution was -0.1965 with a standard error of 0.0916. The kurtosis statistic indicates that the manager's compensation data

distribution was platykurtic, indicating that the distribution curve was flatter than the Gaussian (normal) distribution. This generally meant that more than half of the respondents were in agreement that manager's compensation was a practice that could influence creative accounting among the firms listed at NSE. This evidences show that manager's compensation among listed companies in Kenya is high and dependent on the firm's profitability. The above results were consistent with the observations of Beaudoin *et al.* (2015), who established that managers use accounting discretion to manage earnings, in order to maximize their cash bonuses.

#### **4.5.2 Contractual Obligations**

The study sought to find out whether contractual obligations were a practice that influence the creative accounting among the companies listed at the NSE. The study believed that contractual obligations may persuade the management to desire moderate profits for the firm so as to moderate the costs arising from debt covenants. This was in line with positive accounting theories which suggested that debt covenants plays a role in creative accounting.

##### **a) Contractual obligations depends on the firms profitability**

The respondents were required to indicate the level of agreement on whether contractual obligations depend on the firm's profitability. This question was aimed at gauging the respondent's perception on the level of contractual obligations in their respective firms and its relation with creative accounting. The findings are depicted by table 4.7.

**Table 4.7: Contractual obligations depends on firms profitability**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	22	18.80
Agree	40	34.19
Neutral	14	11.97
Disagree	34	29.06
Strongly Disagree	7	5.98
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 18.80% of the respondents strongly agree that contractual obligations depend on firm's profitability and 34.19% agree while 11.97% were neutral, 29.06% disagree and 5.98% strongly disagrees. These results showed an agreement index 17.95% (52.99% - 35.04%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was confirmed by the fact that majority of the respondents (52.99%) were of the view that contractual obligations were dependent on the firms profitability, therefore suggesting that there was a relationship between debt covenants and firms profitability. The results were in line with Ramadan (2015) who implied that there is a direct relationship between creative accounting and debt covenants.

### **b) Contractual obligations may lead to creative accounting**

The respondents were required to indicate the level of agreement on whether contractual obligations may lead to creative accounting. This question was aimed at gauging the respondent's perception on the level of contractual obligations in their respective firms and its relation with creative accounting. The findings are depicted by table 4.8.

**Table 4.8: Contractual obligations lead to creative accounting**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	19	16.24
Agree	47	40.17
Neutral	12	10.26
Disagree	35	29.91
Strongly Disagree	4	3.42
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 16.24% of the respondents strongly agree that contractual obligations may lead to creative accounting and 40.17% agree while 10.26% neither agree nor disagree, 29.21% disagree and 3.42% strongly disagree. These results showed an agreement index 23.08% (56.41% - 33.33%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was confirmed by the fact that majority of the respondents (56.41%) were of the opinion that contractual obligations could indeed lead to creative accounting, hence suggesting that debt covenants leading to contractual obligations is a practice that influence creative accounting. Omoro *et al.* (2015) observed that creative accounting may result from contractual obligations, hence the results of this study agree with his observations.

### c) Contractual obligations have been fairly stable

Under this question, the respondents were required to indicate the level of agreement on whether contractual obligations for their firm were fairly stable for the last ten years. This question was aimed at gauging the respondent's perception on the level of contractual obligations in their respective firms and its relation with creative accounting. The findings are depicted by table 4.9.

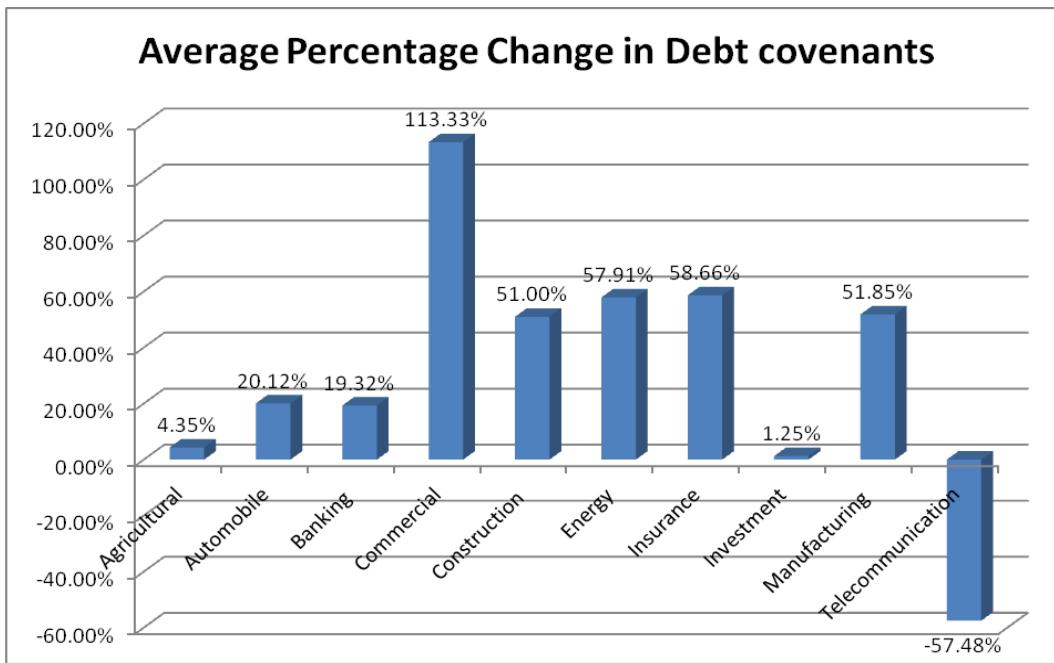
**Table 4.9: Contractual obligations have been fairly stable**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	23	19.66
Agree	52	44.44
Neutral	10	8.55
Disagree	27	23.08
Strongly Disagree	5	4.27
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 19.66% of the respondents strongly agree that contractual obligations was fairly stable in their firms for the last ten years and 44.44% agree while 8.55% were neutral, 23.08% disagree and 4.27% strongly disagrees. These results showed an agreement index 36.75% (64.10% - 27.35%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was corroborated by the fact that majority of the respondents (64.10%) were of the view that contractual obligations for the last ten years have been fairly stable, therefore suggesting that there were no major or significant increases or decreases in the debt levels. The findings from this question were in line with Ciotlet *et al.* (2012) who found out that credit ratings and contractual obligations leads to creative accounting, a view that was also echoed by Demirtas and Cornaggia (2013).

#### **d) Average change in debt covenants on the basis of financial statements**

The research analyzed secondary data relating to the debt covenants which includes debt capital, interest payable and dividends payable. The average percentage increase or decrease in these parameters from the year 2013 to 2014 was determined from the sampled firms in every sector. The results were as shown in Fig 4.2



**Figure 4.2: Percentage change in Debt covenants**

The results of the study showed that Commercial and Allied sector had the highest increase in debt covenant comparing with the previous year (113.33%) followed by insurance sector at 58.66%. The other sectors change in debt covenants were also in the following order: Energy and petroleum Sector (57.91%), manufacturing and allied sector (51.85%), construction and allied (51%), Automobile and accessories (20.12%), Banking sector (19.32%), Agricultural sector with 4.35% and the lowest increase was in Investment sector at 1.25%. Telecommunications sector was the only one with a decrease in debt covenants of -57.48%. These results implies that higher changes either positively or negatively would have a correlation with the creative accounting and in fact these results corroborate the results on creative accounting as discussed in section 4.9

#### e) Overall contractual obligation

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to influence on creative accounting by

the contractual obligations and the average debt covenants. The descriptive analysis of the weighted average responses is as indicated in table 4.10

**Table 4. 10 Descriptive Results – Contractual Obligations**

<b>Contractual Obligations</b>	<b>Statistic</b>
Mean	3.8974
Standard Error	0.1033
Median	4
Mode	4
Standard Deviation	1.1171
Sample Variance	1.2480
Kurtosis	-0.2270
Skewness	-0.8513
Range	4
Minimum	1
Maximum	5
Sum	456
Count	117

The results showed a weighted mean of 3.90 ( $\approx 4$ ) which is above the average mark of 3.0. The standard deviation was also small implying that most of the responses scores were not far from the mean score. This skewness statistic shows the contractual obligations data is a negatively skewed distribution i.e. skewed to the left-hand side. The kurtosis of the distribution was -0.227 with a standard error of 0.1033. The kurtosis statistic indicates that the contractual obligations data distribution was platykurtic, indicating that the distribution curve was flatter than the Gaussian (normal) distribution. This generally meant that more than half of the respondents were in agreement that contractual obligations were a practice that could influence creative accounting among the forms listed at NSE. These findings agree with the most of the literature reviewed. Oluoch *et al.* (2015) as well as Omoro *et al.* (2015) supports the results of this study contractual obligation related practices may lead to creative accounting.

### **4.5.3 Tax Management**

The study sought to find out whether tax management was a practice that influence the creative accounting among the companies listed at the NSE. The study believed that tax management in form of tax avoidance and evasion may persuade the management to desire lower profits for the firm so as to reduce the political costs. This was also in line with the positive accounting theories which propose that creative accounting is sometimes as a result of political costs such as taxation.

#### **a) Tax Management depends on the firms profitability**

The study required the respondents to indicate their level of agreement on whether tax management is based on the firm's profitability. This question was intended to gauging the respondent's perception on the level of tax management in their respective firms and its relation with creative accounting. Gosh (2010) stated that creative accounting may be employed in exchange for a variety of expected rewards among them being political gains such as tax gains. The findings are depicted by table 4.11.

**Table 4.11: Tax Management depends on Firms Profitability**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	16	13.68
Agree	48	41.03
Neutral	11	9.40
Disagree	33	28.21
Strongly Disagree	9	7.69
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 13.68% of the respondents strongly agree that tax management is based on firm's profitability and 41.03% agree while 9.40% were neutral, 28.21% disagree and 7.69% strongly disagrees. These results showed an agreement index 18.81% (54.71% - 35.90%) indicating the degree of agreement with the statement.

Positive index means that the responses were skewed towards agreement. This was supported by the fact that that majority of the respondents (54.71%) were of the view that tax management was dependent on the firms profitability, therefore suggesting that there was a relationship between tax avoidance and/or evasion and firm's profitability. These findings are consistent with the views held by McBarnet (2005) and Cotlet *et al.* (2012) that creative accounting may be encouraged by the desire by management to carefully avoid tax.

### **b) Tax Management leads to creative accounting**

The respondents were required to indicate the level of agreement on whether tax management may lead to creative accounting. This question was intended to gauging the respondent's perception on the level of tax management in their respective firms and its relation with creative accounting. Large corporations engage in creative accounting in order to avoid corporate, sales and payroll taxes (Sikka & Hampton, 2005). The findings are depicted by table 4.12

**Table 4.12: Tax Management leads to Creative Accounting**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	29	24.79
Agree	58	49.57
Neutral	8	6.84
Disagree	18	15.38
Strongly Disagree	4	3.42
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 24.79% of the respondents strongly agree that Tax Management may lead to creative accounting and 49.57% agree while 6.84% neither agree nor disagree, 15.38% disagree and 3.42% strongly disagree. These results showed an agreement index 55.56% (74.36% - 18.80%) indicating the degree of agreement with the

statement. Positive index means that the responses were skewed towards agreement. This was backed up by the fact that majority of the respondents (74.36%) were of the opinion that tax management could indeed lead to creative accounting, hence suggesting that tax avoidance and/or evasion which translates to tax management is a practice that influence creative accounting. The research results clearly agree with Sanusi and Izedonmi (2014) who enlisted the tax evasion as one among various other reasons why firms engage in creative accounting.

### c) Stability of tax payments

Under this question, the respondents were required to indicate the level of agreement on whether taxes payable by the firm were fairly stable for the last ten years. This question was intended to gauging the respondent's perception on the level of tax management in their respective firms and its relation with creative accounting. Moradi (2013) argued that there is a significant relationship between tax status and aggressive taxation. This study therefore assessed the stability of the taxes as an indicator for aggressive tax management. The findings are depicted by table 4.13

**Table 4.13: Tax payable have been fairly stable**

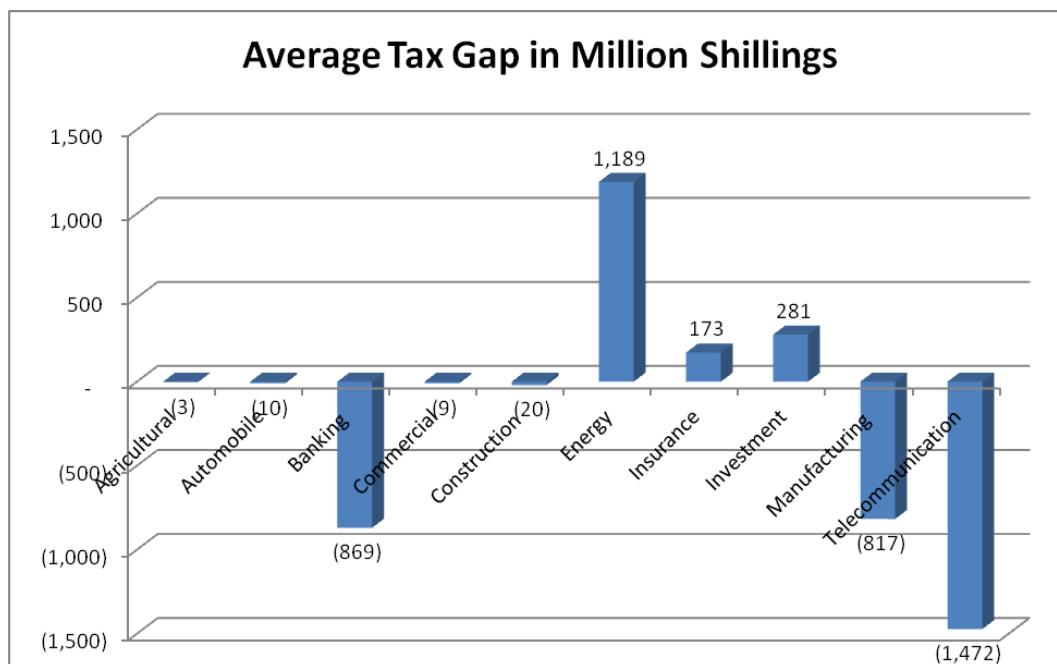
Response	Frequency	Percent
Strongly Agree	17	14.53
Agree	48	41.03
Neutral	17	14.53
Disagree	24	20.51
Strongly Disagree	11	9.40
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 14.53% of the respondents strongly agree that taxes payable were fairly stable in their firms for the last ten years and 41.03% agree while 14.53% were neutral, 20.51% disagree and 9.40% strongly disagrees. These results showed an

agreement index 25.65% (55.56% - 29.91%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was confirmed by the fact that majority of the respondents (55.56%) were of the opinion that taxes payable for the last ten years have been fairly stable, therefore suggesting that there were no major or significant increases or decreases in the political costs in line with Moradi (2013).

#### **d) Tax Gap analysis on the basis of financial statements**

The research analyzed secondary data relating to the current tax and the presumed tax in order to establish the possibility of tax avoidance and/or evasion. Tax gap is the difference between tax payable and tax paid; it results to under payment or non remittance (Durbin, 2012). The results were as shown in Fig 4.3



**Figure 4.3: Average Tax Gap in Million Shillings**

The results of the study showed that Energy and petroleum sector had the highest positive tax gap from comparing the payable tax and what has been paid (1,189 million shillings)

followed by investment sector at 281 million shillings. The other sector which had a positive tax gap was Insurance Sector (173 million). Telecommunication and technology sector had the highest negative tax gap (-1,472 million shillings) followed by Banking sector at -869 million shillings. The other sectors with negative tax gap includes Manufacturing and allied at -817 million, Construction and allied (-20 million), Automobile and accessories (-10 million), Commercial and allied sector at -9 million while the sector with lowest negative tax gap was Agricultural with -3 million shillings. These results imply that only firms in three sectors that could be engaging in tax avoidance since they had positive tax gap. Positive tax gap means that the firms were paying less tax than what was truly payable while negative gap implies that the firms were paying more taxes.

#### e) Overall Tax Management

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to influence on creative accounting by tax management. The descriptive analysis of the weighted average responses is as indicated in table 4.14

**Table 4. 14 Descriptive Results – Tax management**

Tax Management	Statistic
Mean	4
Standard Error	0.1106
Median	4
Mode	5
Standard Deviation	1.1963
Sample Variance	1.4310
Kurtosis	0.2634
Skewness	-1.1374
Range	4
Minimum	1
Maximum	5
Sum	468
Count	117

The results showed a weighted mean of 4.00 which is above the average mark of 3.0. The standard deviation was also small implying that most of the responses scores were not far from the mean score. This skewness statistic shows the tax management data is a negatively skewed distribution i.e. skewed to the left-hand side. The kurtosis of the distribution was 0.2634 with a standard error of 0.1106. The kurtosis statistic indicates that the tax management data distribution was leptokurtic, indicating that the distribution curve was more peaked than the Gaussian (normal) distribution. These evidences show that tax management practices among companies listed at NSE was high. This generally meant that more than half of the respondents were in agreement that tax management was a practice that could influence creative accounting among the firms listed at NSE. The results in this section was in line with findings by Sanusi and Izedonmi (2014) and Lin, Lu and Zhang (2012) who expressed that firms create accounts with aim of saving taxes.

#### **4.5.4 Share Price Performance Management**

The study sought to find out whether share price performance management was a practice that influence the creative accounting among the companies listed at the NSE. The study believed that share price performance management may persuade the management to desire high profits for the firm so as to improve the shares price and trading.

##### **a) Share Price Performance depends on the firms profitability**

The study required the respondents to indicate their level of agreement on whether share price performance is based on the firm's profitability. This question was aimed at assessing and establishing the respondent's perception on the share price performance management in their respective firms and its relation with creative accounting. Ouma

(2012) also found out that there was a connection between dividend payout which is a function of profits and the market share prices. The findings are depicted by table 4.15

**Table 4.15: Share Price Performance depends on Firms Profitability**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	14	11.97
Agree	39	33.33
Neutral	15	12.82
Disagree	37	31.62
Strongly Disagree	12	10.26
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 11.97% of the respondents strongly agree that share price performance is based on firm's profitability and 33.33% agree while 12.82% were neutral, 31.62% disagree and 10.26% strongly disagrees. These results showed an agreement index 3.42% (45.30% - 41.88%) indicating the degree of agreement with the statement. A small positive index means that the responses were skewed towards agreement, however since the index is less than 10%, the difference between the level of agreement and disagreement is insignificant. This was corroborated by the fact that about half of the respondents (45.30%) were of the view that share price performance was dependent on the firms profitability, therefore suggesting that there was a relationship between share prices and firms profitability. These results lie in between two contradicting views by Hashemijoo, Mahdavi, and Younesi (2012) who observed that low pay out and low dividend yield are expected to have more volatility in their share price and Collin-Dufresne and Fos (2015) who was of the view that there was no significant relationship between share prices and profits. They observed that informed traders can select when and how to trade.

### **b) Share Price Performance leads to creative accounting**

The respondents were required to indicate the level of agreement on whether share price performance may lead to creative accounting. This question was aimed at assessing and establishing the respondent's perception on the share price performance management in their respective firms and its relation with creative accounting. Effiok and Eton (2012) found out that there was a positive relationship between accounts manipulation and management decisions measured by share price performance. The findings are depicted by table 4.16

**Table 4.16: Share Price Performance leads to Creative Accounting**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	9	7.69
Agree	36	30.77
Neutral	18	15.38
Disagree	40	34.19
Strongly Disagree	14	11.97
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 7.69% of the respondents strongly agree that share price performance may lead to creative accounting and 30.77% agree while 15.38% neither agree nor disagree, 34.19% disagree and 11.97% strongly disagree. These results showed an agreement index -7.70% (38.46% - 46.16%) indicating the degree of agreement with the statement. A small negative index means that the responses were insignificantly skewed towards disagreement. This was supported by the fact that majority of the respondents (46.16%) disagreed with the statement and therefore were of the perception that share price performance could not lead to creative accounting, hence suggesting that share price performance is not practice that influence creative accounting.

The findings were inconsistent with Gosh (2010) who had observed that firms perform accounts manipulations or creative accounting in order to represent a favorable financial position which will have an effect on the share prices.

### **c) Share Price Performance Stability**

The respondents were required to indicate the level of agreement on whether firms share price performance was fairly stable for the last ten years. This question was aimed at assessing and establishing the respondent's perception on the share price performance management in their respective firms and its relation with creative accounting. CFOs in a study by Dichev, Graham, Harvey and Rajgopal (2013) believed that high-quality earnings are sustainable and repeatable. The results of that study also revealed that 20% of the firms create accounts to misrepresent the economic performance of the firm. This study assessed stability of share prices as an indicator of managed earnings. The findings are as depicted by table 4.17

**Table 4.17: Share prices have been fairly stable**

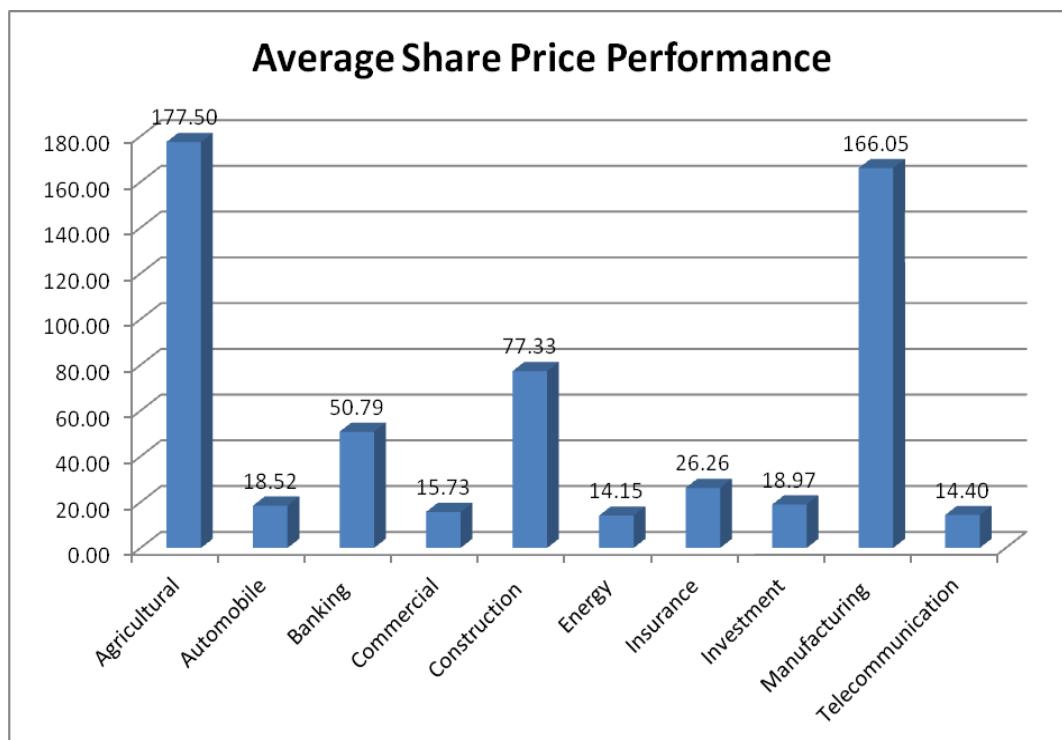
<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	19	16.24
Agree	44	37.61
Neutral	12	10.26
Disagree	32	27.35
Strongly Disagree	10	8.55
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 16.24% of the respondents strongly agree that share prices were fairly stable in their firms for the last ten years and 37.61% agree while 10.26% were

neutral, 27.35% disagree and 8.55% strongly disagrees. These results showed an agreement index 17.95% (53.85% - 35.90%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was confirmed by the fact that majority of the respondents (53.85%) were of the opinion that share price performance for the last ten years have been fairly stable, therefore suggesting that there were no major or significant increases or decreases in the share prices.

#### **d) Share Price Performance Analysis**

The study analyzed secondary data relating to the average share prices of the sampled firms per sector in order to establish the average share price performance. The average share prices per sector was computed and the results were as shown in Fig 4.4



**Figure 4.4: Average Share price performance**

The results of the study showed that Agricultural sector had the highest average market share price (177.5) followed by Manufacturing and allied sector at 166.05 shillings. Construction and allied sector average market share price was 77.33 followed by Banking sector at 50.79 Shillings. The other sector average market share prices were in the following order; Insurance sector at 26.26 shillings, Investment Sector at 18.97, Automobile and accessories (18.52 shillings), Commercial and allied sector at 15.73 Shillings, while Telecommunication and technology sector had an average of 14.4 shillings and Energy and petroleum sector had the lowest average market share price of 14.15 shillings. These results corroborate the previous results which suggest that share price performance may not have a correlation with creative accounting among firms listed at NSE.

#### e) Overall Share price Performance

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to influence on creative accounting by share price performance. The descriptive analysis of the weighted average responses is as indicated in table 4.18

**Table 4. 18 Descriptive Results – Share Price Performance**

Share Price Performance	Statistic
Mean	2.8291
Standard Error	0.1160
Median	3
Mode	4
Standard Deviation	1.2546
Sample Variance	1.5740
Kurtosis	-1.2206
Skewness	-0.0435
Maximum	5
Sum	331
Count	117

The results showed a weighted mean of 2.829 which is below the average mark of 3.0. The standard deviation was also small implying that most of the responses scores were not far from the mean score. This skewness statistic shows the share price performance data is a negatively skewed distribution i.e. skewed to the left-hand side. The kurtosis of the distribution was -1.2206 with a standard error of 0.1160. The kurtosis statistic indicates that the share price performance data distribution was platykurtic, indicating that the distribution curve was flatter than the Gaussian (normal) distribution. These evidences show that share price performance related practices among companies listed at NSE was not high. This generally meant that more than half of the respondents were not in agreement that share price performance management was a practice that could influence creative accounting among the firms listed at NSE. Generally the results in this section contradicted the findings by Effiok and Eton (2012) established a positive relationship between accounts manipulation and management decisions measured by share price performance.

#### **4.5.5 Insider Dealings**

The study sought to find out whether insider dealings were a practice that influence the creative accounting among the companies listed at the NSE. The study believed that insider dealings may persuade the management to desire high profits for the firm so as to improve the personal benefit to the management.

##### **a) Insider dealings depends on the firms profitability**

The study required the respondents to indicate their level of agreement on whether insider dealings depend on the firm's profitability. This question was intended to gauge the respondent's perception on the level of insider dealings in their respective firms and its relation with creative accounting. The findings are depicted by table 4.19

**Table 4.19: Insider Dealings depends on Firms Profitability**

Response	Frequency	Percent
Strongly Agree	14	11.97
Agree	46	39.32
Neutral	16	13.68
Disagree	33	28.21
Strongly Disagree	8	6.84
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 11.97% of the respondents strongly agree that insider dealings depend on firm's profitability and 39.32% agree while 13.68% were neutral, 28.21% disagree and 6.84% strongly disagrees. These results showed an agreement index 16.24% (51.29% - 35.05%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was corroborated by the fact that majority of the respondents (51.29%) were of the view that insider dealings were dependent on the firm's profitability, therefore suggesting that there was a relationship between insider dealings and firms profitability. The results on this question were in line with findings of Denis and Xu (2013) who stated that insider trading allows insiders to profit from their innovation and effort, meaning that there is a correlation between insider dealings and firm's profitability.

### b) Insider dealings Leads to Creative Accounting

The respondents were required to indicate the level of agreement on whether insider dealings may lead to creative accounting. This question was intended to gauge the respondent's perception on the level of insider dealings in their respective firms and its relation with creative accounting. The findings are depicted by table 4.20

**Table 4.20: Insider dealings leads to creative accounting**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	15	12.82
Agree	45	38.46
Neutral	17	14.53
Disagree	31	26.50
Strongly Disagree	9	7.69
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 12.82% of the respondents strongly agree that insider dealing may lead to creative accounting and 38.46% agree while 14.53% neither agree nor disagree, 26.50% disagree and 7.69% strongly disagree. This implied that majority of the respondents (51.28%) were of the opinion that insider dealings could indeed lead to creative accounting, hence suggesting that insider trading is a practice that influences creative accounting. The results from this question were consistent with Waweru (2014) who observed that insider dealing activities are related to creative accounting.

### c) Insider Share transactions are fairly stable

The respondents were required to indicate the level of agreement on whether firms share transactions by company directors was fairly stable for the last ten years. This question was intended to gauge the respondent's perception on the level of insider dealings in their respective firms and its relation with creative accounting. The study by Ozkan *et al.* (2015) showed a significant relation between insider trading activity and the likelihood of firm's insolvency. This study analyzed stability of insider transactions as an indicator for creative accounting. The findings are as depicted by table 4.21

**Table 4.21: Share transactions fairly stable**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	12	10.26
Agree	39	33.33
Neutral	21	17.95
Disagree	37	31.62
Strongly Disagree	8	6.84
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 10.26% of the respondents strongly agree that directors share transactions were fairly stable in their firms for the last ten years and 33.33% agree while 17.95% were neutral, 31.62% disagree and 6.84% strongly disagrees. These results showed an agreement index 5.13% (43.59% - 38.46%) indicating the degree of agreement with the statement. A small positive index means that the responses were insignificantly skewed towards agreement. This was supported by the fact that about half of the respondents (43.59%) were of the opinion that share transactions by company directors for the last ten years have been fairly stable, therefore suggesting that there were no major or significant increases or decreases in the related party transactions.

#### **d) Existence of Insider dealings**

The respondents were required to indicate the level of agreement on whether insider trading was being practiced by the firm. The study expected that by default, the level of disagreement would naturally be high and that was also reflected by the findings as depicted by table 4.22

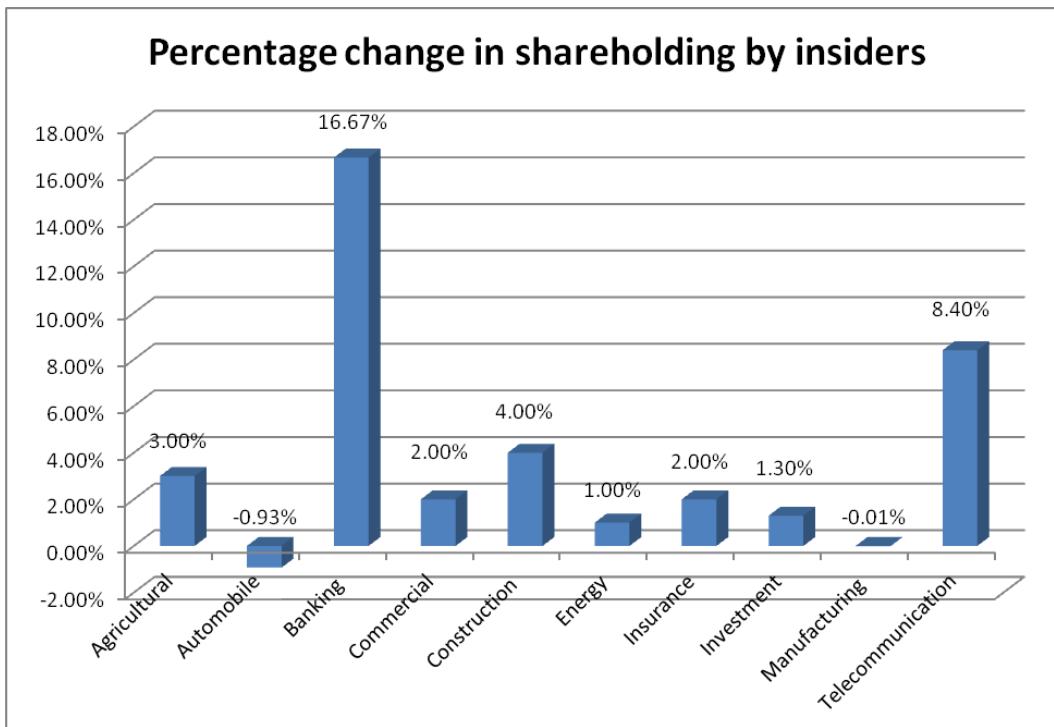
**Table 4.22: Insider dealings are practiced in your company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	5	4.27
Agree	24	20.51
Neutral	26	22.22
Disagree	51	43.59
Strongly Disagree	11	9.40
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 4.27% of the respondents strongly agree that insider dealings were practiced in their firms and 20.51% agree while 22.22% were neutral, 43.59% disagree and 9.40% strongly disagrees. These results showed an agreement index - 28.21% (24.78% - 52.99%) indicating the degree of agreement with the statement. Negative index means that the responses were skewed towards disagreement. This was corroborated by the fact that majority of the respondents (52.99%) were of the opinion that no insider trading was being practiced in their firms, therefore suggesting that there were no significant related party transactions associated with their firms. The results in this section support the view by (Akivaga, 2011) who state that insider dealings was being practiced in Kenya since 2008.

#### e) Level of Insider dealings based on financial statements

The study analyzed secondary data relating to the share transactions by the directors and employees of the company. This was computed using percentage change in shareholding by directors and employees from the year 2013 to 2014. These percentage changes were computed for all the firms in the sample and a sector average estimated. The estimated percentage change in shareholding by insiders was computed and the results were as shown in Fig 4.5



**Figure 4.5: Percentage change in Shareholding by Insiders**

The results of the study showed that banking sector had the highest increase in level of shareholding by insiders (16.67%) followed by telecommunication and technology sector at 8.40%. Construction and allied sector level of shareholding by insiders increased by 8.40% while the agricultural sector increased at 3.00%. The other sectors level of shareholding by insiders changed in the following order; ), Commercial and allied sector at 2.00%, Insurance sector at 2.00%, Investment Sector at 1.30% while Energy and petroleum sector average increase in insiders shareholding was 1.00%. the remaining sectors of automobile and accessories as well as manufacturing and allied had their percentage level of insiders shareholding decrease by 0.93% and 0.01% respectively. These results were meant to corroborate the previous results which suggest that insider dealings may have a correlation with creative accounting among firms listed at NSE.

### f) Overall insider dealings analysis

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to influence on creative accounting by insider dealings and share transactions by company directors. The descriptive analysis of the weighted average responses is as indicated in table 4.23

**Table 4. 23 Descriptive Results – Insider dealings**

Insider Dealings	Statistic
Mean	2.6667
Standard Error	0.0964
Median	2
Mode	2
Standard Deviation	1.0422
Sample Variance	1.0862
Kurtosis	-0.6221
Skewness	0.4287
Range	4
Minimum	1
Maximum	5
Sum	312
Count	117

The results showed a weighted mean of 2.667 which is below the average mark of 3.0. The standard deviation was also small implying that most of the responses scores were not far from the mean score. This skewness statistic shows the insider dealings data is a positively skewed distribution i.e. skewed to the right-hand side. The kurtosis of the distribution was -0.6221 with a standard error of 0.0964. The kurtosis statistic indicates that the insider dealings data distribution was platykurtic, indicating that the distribution curve was flatter than the Gaussian (normal) distribution. These evidences showed that insider dealing practices among companies listed at NSE was not high. This generally

meant that more than half of the respondents were not in agreement that insider dealings was a practice that could not influence creative accounting among the forms listed at NSE. This was in agreement with Iraya *et al.* (2015) observed that transactions by insiders have an effect on earnings management.

#### **4.5.6 Creative Accounting**

The study sought to find out whether creative accounting was being carried out among the companies listed at the NSE. The study believed that creative accounting was being practiced in Kenya. The research employed both the primary data and secondary data to establish whether creative accounting was being practiced.

##### **a) Creative Accounting is practiced in the organization**

The respondents were required to indicate the level of agreement on whether creative accounting was being practiced in their firms for various reasons. This question was intended to gauge the respondent's perception on the level of creative accounting if any being practiced in their respective organizations. The results from this survey were triangulated with secondary data analysis. In order to encourage the respondents to give the correct position, the study explained to them that Creative Accounting is legal and it involves taking advantage of the loopholes in the laws and regulations to portray a higher or lower profit depending on organizations preferences. The findings are as depicted by table 4.24

**Table 4.24: Creative Accounting is practiced**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	1	0.85
Agree	26	22.22
Neutral	26	22.22
Disagree	46	39.32
Strongly Disagree	18	15.38
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 0.85% of the respondents strongly agreed that creative accounting was practiced in their firms and 22.22% agreed while 22.22% were neutral, 39.32% disagree and 15.38% strongly disagrees. These results showed an agreement index -31.63% (23.07% - 54.70%) indicating the degree of agreement with the statement. Negative index means that the responses were skewed towards disagreement. This was confirmed by the fact that majority of the respondents (54.70%) were of the opinion that no creative accounting that was being done in their firms, therefore suggesting that there were no significant manipulation of financial statements associated with their firms. These findings were in line with the observations by Iraya *et al.* (2015)

### **b) Predictability of profits**

The respondents were required to indicate the level of agreement on whether it was easy to predict the subsequent year's profits in their firm. The aim of this question was to assess the respondent's perception on the predictability of profits. If respondents could easily predict the firm's profitability, then it is interpreted as a red flag for creative accounting practices. Dechow *et al.* (1995) explained relationships which are central to an understanding of earnings management as accrual management. Generally profit is random variable and hence should not be easily predictable. The findings were as depicted by table 4.25

**Table 4.25: It's easy to predict profits**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Agree	14	11.97
Agree	44	37.61
Neutral	18	15.38
Disagree	31	26.50
Strongly Disagree	10	8.55
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 11.97% of the respondents strongly agreed that it was easy to predict the following years profits in their firm and 37.61% agreed while 15.38% were neutral, 26.50% disagree and 8.55% strongly disagrees. These results showed an agreement index 14.53% (49.58% - 35.05%) indicating the degree of agreement with the statement. Positive index means that the responses were skewed towards agreement. This was corroborated by the fact that majority of the respondents (49.58%) were of the opinion that it was easy to predict profits for in their firms, therefore suggesting that there was a possibility of manipulation of financial statements associated with their firms. These results were in line with the findings by Idris *et al.* (2012).

### c) Market Stability

The respondents were required to indicate the level of agreement on whether market for their firm's products was fairly stable for the last ten years. The responses to this question provides reinforcement to the predictability of profits in that, the stable markets could act as a stabilizer to the profits. However in real life situations, market stability is not a common occurrence. The findings are as depicted by table 4.26

**Table 4.26: Market for firms products is fairly stable**

Response	Frequency	Percent
Strongly Agree	17	14.53
Agree	56	47.86
Neutral	14	11.97
Disagree	27	23.08
Strongly Disagree	3	2.56
<b>Total</b>	<b>117</b>	<b>100.00</b>

The study indicated that 14.53% of the respondents strongly agree that the market for their firm's products was fairly stable for the last ten years and 47.86% agree while 11.97% were neutral, 23.08% disagree and 2.56% strongly disagrees. These results showed an agreement index 36.75% (62.39% - 25.64%) indicating the degree of

agreement with the statement. Positive index means that the responses were skewed towards agreement. This was backed up by the fact that majority of the respondents (62.39%) were of the opinion that market for their firms products had been fairly stable for the last ten years, therefore suggesting that there were no major or significant increases or decreases in the net income for the organization. These results concur with the findings of Balaciu and Pop (2008).

#### **d) Overall Creative Accounting**

The weighted average mean was calculated using the responses from variables explained in the subsections above. More weight was given to firm's engagement in creative accounting and the predictability of profits. The descriptive analysis of the weighted average responses is as indicated in table 4.27

**Table 4. 27 Descriptive Results – Creative accounting**

Creative Accounting	Statistic
Mean	2.5299
Standard Error	0.0937
Median	2
Mode	2
Standard Deviation	1.0135
Sample Variance	1.0271
Kurtosis	-1.1030
Skewness	0.1447
Range	3
Minimum	1
Maximum	4
Sum	296
Count	117

The results showed a weighted mean of 2.530 which is below the average mark of 3.0. The standard deviation was also small implying that most of the responses scores were

not far from the mean score. This skewness statistic shows the creative accounting data is a positively skewed distribution i.e. skewed to the right-hand side. The kurtosis of the distribution was -1.1030 with a standard error of 0.0937. The kurtosis statistic indicates that the creative accounting data distribution was platykurtic, indicating that the distribution curve was flatter than the Gaussian (normal) distribution. These evidences showed that the level of creative accounting among companies listed at NSE was not high. This generally meant that more than half of the respondents were of the opinion that the level creative accounting among the forms listed at NSE was minimal. The findings are in line with Beaudoin *et al.* (2015) who stated that despite regulatory reforms aimed at inhibiting aggressive financial reporting, earnings management continues to be practiced.

#### **4.6 Creative Accounting on the basis of Discretionary Accruals**

Creative accounting was assessed using both primary data and secondary data. The secondary data was based on the three sub variables of discretionary accruals and qualifications of audit report.

##### **4.6.1 Operational Discretionary Accruals**

The study studied the financial statements for the sampled corporations in order to establish the level of operational discretionary accruals, which is one of the measures of creative accounting. One of the most commonly used model to estimate the nondiscretionary accrual component is the Modified Jones Model (1991) which was employed in this research. The model is stated as:

$$\frac{\text{NOA}}{\text{ATA}} = \beta_0 + \beta_1 \left( \frac{1}{\text{ATA}} \right) + \beta_2 \left( \frac{\Delta \text{Sales} - \Delta \text{Rec}}{\text{ATA}} \right) + \beta_3 \left( \frac{\text{GPPE}}{\text{ATA}} \right) + \varepsilon$$

Where:

TNA= Total net accruals

NOA= Net operating accruals = Net income – Cash flow from operations

ATA = Average total assets

$\Delta$ Sales = Change in sales

$\Delta$ Rec= Change in accounts receivable

GPPE = Gross PP&E (Property plant & Equipment)

This study employed a cross sectional survey design and in a cross-sectional analysis of the model is a two-stage model. This implies that results from the first part of the analysis are plugged into the next stage to get the needed estimate. To estimate the nondiscretionary accrual amounts, firm-specific amounts for each independent variable were used for a particular period across several different firms. A regression analysis was carried out and once  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  had been estimated for the cross-section of firms for the period 2014, they were used along with a specific firm's data to estimate the individual firm's nondiscretionary accruals for the year. After processing, the calculation results in an estimate for nondiscretionary accruals scaled by average total assets, represented by NDA divided by ATA as indicated in the above formula. The second stage was to compute Operational Discretionary Accruals (ODA) using the formula below.

$$ODA = \frac{NOA}{ATA} - \frac{NDA}{ATA}$$

The Operational Discretionary Accruals estimate for the firm was then be ranked against the discretionary accrual estimates of the firm's peers and all other firms in the universe. “This ranking is a comparative measure of the size of discretionary accruals, and it is a proxy for the quality of the firm's earnings. A high amount of discretionary accruals indicates lower-quality earnings and is a red flag that management may be using aggressive accounting to overstate earnings” (Tim Keefe, 2015)

The analysis was carried out on the basis of the sectors and results of the second stage of analysis per sector were as indicated in the subsequent tables. A final analysis of all the

firms in the sample was also carried out in order to establish the overall situation on creative accounting among the companies listed at the NSE.

According to Deechoe 1995 discretionary earnings closer to 1 means that there is creative accounting in the form of earnings management while a factor closer to zero implies no creative accounting. Di Narzo (2012) in their study applied a rule of thumb that coefficients which are in the range of one percent to five percent are acceptable. Following the results of the secondary data analysis this study adopts the Di Narzo's rule of thumb in interpreting the results per sector.

When the modified Jones model was applied to the secondary data collected, the first stage results were significant as shown by the ANOVA table 4.28 and coefficients table 4.29

**Table 4.28 – ANOVA for Modified Jones Model**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	0.300565	0.100188	19.41057	0.00
Residual	35	0.180654	0.005162		
Total	38	0.481219			

**a. predictors: (constant), 1/ATA, ( $\Delta$  Sales –  $\Delta$  Receivables)/ATA, GPPE/ATA**

**b. dependent variable: Creative Accounting (NOA/ATA)**

Table 4.29 shows results of ANOVA test which reveal that the independent variables have significant effect on discretionary accruals since P-value is .000 which is less than 5% level of significance.

This implies that the resultant coefficients were a good predictor of operational discretionary accruals and may therefore be applied in the second stage of analysis.

**Table 4.29 – Coefficients for Modified Jones Model**

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.0368	0.0171	2.147	0.038
1/ATA	-23990	3675.5	-6.526	0.000
(Δ S – Δ Rec)/ATA	0.1624	0.0676	2.402	0.021
GPPE/ATA	-0.1509	0.0437	-3.451	0.001

The second stage results, which is the cross sectional sectoral analysis on the basis of the model is as explained in the subsequent sections.

#### a) Agricultural Sector

Nyasa and Odhiambo (2013) observed that agricultural sector is among the least active sector in NSE. The Modified Jones Model was applied on the sample of four companies in the agricultural sector. The results of the analysis are as shown in the table 4.30.

**Table 4.30 - Discretionary accruals in agricultural sector**

FIRM	NOA	1	ΔSales – ΔRec	GPPE	NDA	ODA
	ATA	ATA	ATA	ATA		
1	-0.09037	0.00000027	0.094782	0.72727	-0.06391	-0.0265
2	0.06018	0.00000031	-0.014495	0.26457	-0.01278	0.07295
3	-0.03511	0.00000050	-0.127410	0.26219	-0.03525	0.00014
4	-0.05656	0.00000012	-0.140701	0.25501	-0.02726	-0.0293
Average	-0.03047	0.00000030	-0.046956	0.37726	-0.03480	0.00433

The table shows that out of the four sampled companies, three companies' discretionary accruals falls within the acceptable range of 1% to 5%. This translates to 25% of the companies in the sector may have a possibility of engaging in creative accounting practices. Generally the agricultural sector coefficient of operational discretionary accruals falls within the acceptable range. These findings are corroborated by Oluoch *et al.* (2015) who observed that agricultural sector of NSE has the highest accruals quality. High accrual quality implies lower creative accounting tendencies, which means that firms in agricultural sector did not create their accounts.

### b) Automobiles and Accessories

Analysis on the basis of the Modified Jones Model was applied on the sample of two companies in the automobiles and accessories sector. The results of the study are as shown in the table 4.31.

**Table 4.31- Discretionary accruals in automobiles and accessories sector**

FIRM	NOA ATA	1 ATA	$\Delta$ Sales - $\Delta$ Rec ATA	GPPE ATA	NDA	ODA
1	-0.047996	0.00000030	-0.08587	0.10888	-0.0006	-0.0474
2	0.033880	0.00000142	-0.05536	0.06559	-0.0153	0.04920
Average	-0.007058	0.00000086	-0.07062	0.08724	-0.0078	0.00091

The table shows that out of the two sampled companies, both companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that none of the companies in the sector may have a possibility of engaging in creative accounting practices. Generally the automobile and accessories sector coefficient on operational discretionary accruals falls within the acceptable range. The sector coefficient is closer to zero which means that the degree of earnings management is quite low and that the level or degree of creative accounting being practiced among the companies in the sector

is almost zero. These findings are inconsistent with observations by Oluoch *et al.* (2015) who observed that automobiles and accessories sector of NSE is among the sectors with the poorest accruals quality.

### c) Banking Sector

The seven companies sampled from the banking sector were analyzed for creative accounting through earnings management on the basis of the two stage Modified Jones Model and the results recorded in the table 4.32.

**Table 4.32- Discretionary accruals in Banking sector**

FIRM	NOA ATA	1 ATA	$\frac{\Delta \text{Sales} - \Delta \text{Rec}}{\text{ATA}}$	GPPE ATA	NDA	ODA
1	-0.00727	0.000000004	-0.1315	0.032735	0.01042	-0.017698
2	0.052207	0.000000003	-0.1211	0.014059	0.01495	0.037261
3	0.062676	0.000000004	-0.1251	0.029144	0.01198	0.050694
4	0.002858	0.000000004	-0.0685	0.046497	0.01855	-0.015696
5	0.048432	0.000000003	-0.0439	0.016621	0.02710	0.021337
6	0.047351	0.000000007	-0.1257	0.027213	0.01212	0.035230
7	0.025535	0.000000008	-0.4790	0.037035	-0.0468	0.072303
Average	0.033112	0.000000005	-0.1564	0.029043	0.00691	0.026204

The table illustrates that out of the seven companies sampled from the sector, five companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that about 28% of the companies in the banking sector may have a possibility of engaging in creative accounting practices. In general the average banking sector coefficient of operational discretionary accruals falls within the acceptable range. However, the coefficient is comparatively higher than most of the other sectors.

#### d) Commercial and Allied Sector

Analysis on the basis of the Modified Jones Model was applied on the sample of six companies in the commercial and allied sector. The operational discretionary accruals results of the individual sampled companies in the sector are as shown in the table 4.33.

**Table 4.33- Discretionary accruals in commercial and allied sector**

FIRM	<u>NOA</u> ATA	<u>1</u> ATA	<u>ΔSales - ΔRec</u> ATA	<u>GPPE</u> ATA	NDA	ODA
	1	2	3	4	5	6
1	0.03472	0.00000134	0.46237	0.22084	0.04727	-0.01255
2	-0.06425	0.00000024	0.00445	0.55268	-0.05158	-0.01267
3	-0.04117	0.00000001	0.02594	0.59458	-0.04887	0.00770
4	-0.03615	0.00000008	0.13740	0.03894	0.05148	-0.08762
5	-0.01596	0.00000024	0.08831	0.43650	-0.02026	0.00429
6	-0.01295	0.00000006	-0.02714	0.70303	-0.07517	0.06222
Average	-0.02263	0.00000033	0.11522	0.42443	-0.01619	-0.00644

The table demonstrates that out of the six companies sampled from the commercial and allied sector, four companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that about 33% of the companies in the commercial and allied sector may have a possibility of engaging in creative accounting practices. In general the average commercial and allied sector coefficient of operational discretionary accruals falls within the acceptable range. This implies that the general likelihood of a firm in the sector engaging in creative accounting is quite low. These findings are corroborated by Oluoch *et al.* (2015) who observed that commercial and allied sector of NSE was among the sectors with has the highest accruals quality. This therefore means that the firms in this sector did not engage in creative accounting practices.

### e) Construction and allied Sector

The Modified Jones Model was applied on the sample of three companies in the construction and allied sector. The results of the analysis are as shown in the table 4.34.

**Table 4.34 - Discretionary accruals in construction and allied sector**

FIRM	NOA	1	$\Delta$ Sales - $\Delta$ Rec	GPPE	NDA	ODA
	ATA	ATA	ATA	ATA		
1	-0.05665	0.00000002	0.033642	0.591910	-0.0476	-0.00902
2	0.09859	0.00000034	0.139681	0.250050	0.0138	0.084781
3	-0.02200	0.00000017	0.076393	0.422835	-0.0186	-0.00342
Average	0.006648	0.00000018	0.083238	0.421599	-0.0175	0.024113

The table shows that out of the three sampled companies, two companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that one of the companies in the sector, which represents 33% of the sample, may have a possibility of carrying out creative accounting practices. Generally the automobile and accessories sector coefficient on operational discretionary accruals falls within the acceptable range. The sector coefficient is closer to the coefficient under the banking sector which means that the degree of earnings management is quite high as compared to the other sectors. These findings are corroborated by Oluoch *et al.* (2015) who observed that construction and allied sector of NSE has the moderate accruals quality. This therefore means that the firms in this sector are likely to engage in creative accounting practices since moderate accruals quality means average chance of a firm practicing creative accounting.

### f) Energy and petroleum sector

Analysis on the basis of the Modified Jones Model was applied on the sample of three companies in the energy and petroleum sector. The operational discretionary accruals results of the individual sampled companies in the sector are as shown in the table 4.35.

**Table 4.35 - Discretionary accruals in energy and petroleum sector**

FIRM	NOA		1		$\Delta \text{Sales} - \Delta \text{Rec}$		GPPE	
	ATA	ATA	ATA	ATA	ATA	NDA	ODA	
1	-0.07050	0.000000006	0.00078	0.791325	-0.08262	0.01211		
2	-0.03709	0.000000004	0.00922	0.836256	-0.08799	0.05089		
3	0.287613	0.000000031	0.61133	0.264880	0.09539	0.19222		
Average	0.060004	0.000000013	0.20711	0.630820	-0.02507	0.08507		

The table shows that out of the three companies sampled from the sector, only one company's discretionary accruals falls within the acceptable range of 1% to 5%. This implies that 66% of the companies in the sector may have a possibility of being involved in creative accounting and related practices. In general the energy and petroleum sector coefficient of operational discretionary accruals falls outside the acceptable range. This means that it is highly likely that a firm in the energy and petroleum sector will be involved in creative accounting. These findings are consistent with the observations by Oluoch *et al.* (2015) who found out that Energy and petroleum sector of NSE has the lowest accruals quality. This therefore means that the firms in this sector have a lower likelihood of engaging in creative accounting practices.

### **g) Insurance Sector**

Analysis on the basis of the Modified Jones Model was applied on the sample of four companies in the insurance sector. The operational discretionary accruals results of the individual sampled companies in the sector are as shown in the table 4.36.

**Table 4.36- Discretionary accruals in insurance sector**

<b>FIRM</b>	<b>NOA</b>	<b>1</b>	$\Delta\text{Sales} - \Delta\text{Rec}$	<b>GPPE</b>	<b>NDA</b>	<b>ODA</b>
	<b>ATA</b>	<b>ATA</b>	<b>ATA</b>	<b>ATA</b>		
1	-0.01186	0.000000014	0.03574	0.01834	0.03951	-0.0514
2	-0.06690	0.000000047	0.00646	0.00542	0.03593	-0.1028
3	0.011281	0.000000031	0.06699	0.00288	0.04652	-0.0352
4	-0.11820	0.000000149	0.15625	0.04363	0.05210	-0.1703
Average	-0.04642	0.000000060	0.06636	0.01757	0.04352	-0.0899

The table illustrates that out of the four companies sampled from the sector, two companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that about 50% of the companies in the insurance sector may have a possibility of engaging in creative accounting practices. In general the average insurance sector coefficient of operational discretionary accruals falls outside the acceptable range. Further, the coefficient is comparatively higher than majority of the other sectors.

### **h) Investment sector**

The three companies sampled from the investment sector were analyzed for creative accounting through earnings management on the basis of the two stage Modified Jones Model and the results recorded in the table 4.37.

**Table 4.37- Discretionary accruals in investment sector**

FIRM	NOA	1	$\Delta \text{Sales} - \Delta \text{Rec}$	GPPE	NDA	ODA
	ATA	ATA	ATA	ATA		
1	0.09503	0.00000003	0.0056	0.3664	-0.0184	0.1134
2	0.07398	0.00000027	0.0185	0.0147	0.0314	0.0426
3	-0.0878	0.00000005	-0.0309	0.3783	-0.0265	-0.0613
Average	0.02707	0.00000012	-0.0023	0.2532	-0.0045	0.0316

The table shows that out of the three companies sampled from the sector, only one company's discretionary accruals falls within the acceptable range of 1% to 5%. This implies that 66% of the companies in the sector may have a possibility of being involved in creative accounting and related management practices. In general the investment sector coefficient of operational discretionary accruals falls within the acceptable range. This means that it is less likely that a firm in the investment sector will be involved in creative accounting.

### i) Manufacturing and allied sector

The Modified Jones Model was applied on the sample of six companies in the agricultural sector. The results of the analysis are as shown in the table 4.38.

**Table 4.38- Discretionary accruals in manufacturing and allied sector**

FIRM	NOA ATA	1 ATA	$\frac{\Delta \text{Sales} - \Delta \text{Rec}}{\text{ATA}}$	GPPE ATA	NDA	ODA
1	-0.14888	0.0000000	0.09902	0.79867	-0.0686	-0.08025
2	-0.03371	0.0000011	-0.2383	0.03500	-0.0323	-0.00138
3	0.010755	0.0000000	0.05706	0.60226	-0.0452	0.05595
4	-0.01234	0.0000000	-0.1365	0.11480	-0.0036	-0.00876
5	0.000624	0.0000001	0.26680	0.30435	0.03129	-0.03066
6	-0.49753	0.0000199	0.05241	0.41246	-0.4828	-0.01470
Average	-0.11351	0.0000035	0.01675	0.37792	-0.1002	-0.01330

The table demonstrates that out of the six companies sampled from the manufacturing and allied sector, four companies' discretionary accruals falls within the acceptable range of 1% to 5%. This implies that about 33% of the companies in the manufacturing and allied sector may have a possibility of engaging in creative accounting practices. In general the average commercial and allied sector coefficient of operational discretionary accruals falls within the acceptable range. This implies that the general possibility of a firm in the sector engaging in creative accounting is small. These findings are corroborated by Oluoch *et al.* (2015) who observed that construction and allied sector of NSE is among the sectors with the highest accruals quality. This therefore means that the firms in this sector have a lower likelihood of engaging in creative accounting practices.

#### j) Telecommunication and technology sector

Analysis on the basis of the Modified Jones Model was applied on the sample of two companies in the telecommunication and technology sector. The results of the study are as shown in the table 4.39.

**Table 4.39 - Discretionary accruals in telecommunication and technology sector**

FIRM	NOA	1	$\Delta\text{Sales} - \Delta\text{Rec}$	GPPE	NDA	ODA
	ATA	ATA	ATA	ATA		
1	-0.21032	0.000000007	0.155318	0.73093	-0.0484	-0.1619
Average	-0.21032	0.000000007	0.155318	0.73093	-0.0484	-0.1619

The table shows that discretionary accruals of the analyzed company fall outside the acceptable range of 1% to 5%. This implies that the company in the sector may have a very possibility of engaging in creative accounting practices. Generally the telecommunication and technology sector coefficient on operational discretionary accruals falls outside the acceptable range. The sector coefficient is the highest among all the sectors which means that the degree of earnings management is quite high and that the likelihood of creative accounting being practiced among the companies in the sector is high. However the level of creative accounting in telecommunication and technology sector is abnormally above the other sectors. This could be attributed to the size of their profit figures. Further as indicated by findings in figure 4.3 had the highest tax gap.

#### k) Overall analysis on all the sampled firms

The thirty nine firms sampled from among the listed companies were analyzed for creative accounting through earnings management on the basis of the two stage Modified Jones Model and the results recorded in the table 4.40. The ranking of the sectors on the basis of discretionary accruals as shown in table 4.39 is almost same as the ranking by Oluoch *et al.* (2015). The only difference is that this study ranks 10 sectors while study according to Oluoch ranks 6 sectors. Oluoch attributes the ranking to cash conversion cycle, moreover creative accounting is usually based on the cash related transactions and short term assets and liabilities. Rarely do perpetrators of creative accounting tamper with long term assets and liabilities including capital.

**Table 4.40 - Discretionary accruals per sector**

SECTOR	NOA		$\Delta\text{Sales} - \Delta\text{Rec}$ ATA	GPPE		RA NK
	ATA	ATA		ATA	NDA	
Agricultural	-0.0305	-0.04696	0.3773	-0.03480	0.00433	9
Auto Mobile	-0.0071	-0.07062	0.0872	-0.00797	0.00091	10
Banking	0.03311	-0.15640	0.0290	0.00691	0.02620	5
Commercial	-0.0226	0.11522	0.4244	-0.01619	-0.0064	8
Construction	0.00665	0.08324	0.4216	-0.01747	0.02411	6
Energy	0.06000	0.20711	0.6308	-0.02507	0.08507	3
Insurance	-0.0464	0.06636	0.0176	0.04351	-0.0899	2
Investment	0.02707	-0.00225	0.2532	-0.00450	0.03157	4
Manufacturing	-0.1135	0.01675	0.3779	-0.10021	-0.0133	7
Telecommunication	-0.2103	0.15532	0.7309	-0.04845	-0.16187	1
Overall	-0.0214	0.01674	0.2928	-0.02104	-0.00039	

Generally, the sector analysis showed minimal instances of creative accounting engagement by the firms listed at NSE since the overall average of the entire sample ODA coefficient based on the modified Jones Model fall within the acceptable range of 1% to 5%. However, three out of ten sectors analyzed, which translates to 30% had the ODA average outside the acceptable range and hence indicating a high probability that creative accounting could be happening within the sectors.

Telecommunication and technology sectors showed the highest probability creative accounting being practiced while automobile and accessories sector indicated the lowest likelihood of creative accounting. The other sectors that ranked high in terms of creative accounting include insurance, energy and petroleum, investment and banking.

The other sectors with low level of creative accounting include agricultural, commercial and allied, manufacturing and allied, and construction and allied.

The research findings are consistent with the literature since the results of secondary data analysis confirms the suspicion raised by the study by Iraya, Mwangi and Muchoki (2015) that some degree of creative accounting is being practiced in Kenya, which in turn leads to collapse of companies. The results also confirms the observation by Katuse *et al.* (2013) that institutional investors' focus on short-term earnings performance could pressure management into boosting reported earnings through aggressive accounting, implying that there could be some degree of its practice.

As noted in the literature review and the results of the study, the research observes that on average there was a 30% probability that the firms listed at NSE may be engaging in creative accounting through earnings management. Creative accounting was carried out across all the sectors, although some sectors indicated higher level of engagement in the practices than others.

#### **4.6.2 Qualifications of audit Reports**

All the sampled companies in all the sectors received unqualified audit reports from their statutory auditors. This means that according to the auditor, company's financial records and statements are fairly and appropriately presented, and in accordance with Generally Accepted Accounting Principles. This research finding is consistent with results of the study by Kariuki (2012) where she concluded that no non-compliant cases uncovered as a result of audit in Semi-Autonomous Revenue Authorities. She also confirmed that nature of the audit opinion given by auditor may be used as an indicator of strong corporate image. However, organizations engaging in creative accounting may portray a good image, and even get unqualified audit report from external auditors, yet the true financial health is wanting. This was proved in the case of Enron Corporation (Grey 2003).

The results under this section were not consistent with the results of the previous section. This means that, if the auditor's opinion was correct, either there was no creative accounting or the creative accounting present was immaterial. Karuri (2014) in his research on corruption also found out that, about 14% of the respondents admitted that they could bribe auditors so as to get an unqualified audit report. This implies that, the possibility of the audit report being faulty cannot be ruled out. The research finding are further corroborated by Otiato (2015) who stated that, among companies recently involved in alleged financial scandals without the auditors raising the alarm includes Imperial Bank, Dubai Bank, CMC Holdings, Mumias Sugar, Kenya Airways, and Uchumi.

#### **4.6.3 Consistency between primary data and Secondary Data**

The primary data gathered using the questionnaire and the secondary data obtained from the analysis of the financial statements, in relation to firm's engagement in creative accounting, were compared so as to establish the degree of consistency. The comparison was based on the individual firm's secondary data as presented in Appendix 5. The ranking of the firms was done on the basis of both primary and secondary data and Spearman rank correlation was calculated using the following formula

$$\rho = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}.$$

$$\rho = 1 - \frac{6(166)}{39(39^2 - 1)} = 0.9832$$

The Spearman rank correlation coefficient obtained was 0.9832 indicate that there is a very strong positive correlation between the primary data and secondary data as relates to creative accounting being carried out by firms listed at NSE. This helps the study to validate the primary data by triangulating it with the secondary data.

The high correlation in the two sets of data is critical in affirming the earlier observation by this study that on average there was a 30% probability that the firms listed at NSE may be engaging in creative accounting through earnings management.

#### **4.6.4 Multicollinearity Test**

Multicollinearity refers to high correlations between explanatory variables (Gujarati & Porter, 2008). Gujarati holds that multicollinearity is not a significant problem in econometric estimation in the sense that it does not violate any assumptions. However, it can cause standard errors to be very large and hence the need to investigate whether some explanatory variables may be insignificant due to the presence of high multicollinearity.

This study employed variance inflation factor (VIF) to test for multicollinearity, a test that was used to assess the component of an explanatory variable's standard error caused by its correlation with other explanatory variables. In addition, the tolerance measure may also be used, which is the reciprocal of VIF. As a rule of thumb, if the VIF of a variable exceeds 10 ( $VIF > 10$ ) or tolerance is less than 0.10 ( $1/VIF < 0.10$ ) indicates that variables are multicollinear (Magumisi & Mawanza, 2014). Moreover, values of correlation coefficient greater than 0.8 were used as indicator of multicollinearity problem in this study.

The multicollinearity test results showed that there was no multicollinearity among the independent variables since all the variables had a VIF of less than 10 as shown in table 4.41. Correlation coefficients among the independent variables also showed that none of the relations between any two independent variables was greater than 0.8 as depicted in table 4.42. This was an indication that multicollinearity was not a problem in this study. The study therefore retained all the explanatory variables.

**Table 4.41 : Multicollinearity Statistics**

<b>Variable</b>	<b>Tolerance</b>	<b>VIF</b>
Managers Compensation	.238	4.209
Contractual obligations	.340	2.938
Tax Management	.182	5.499
Share Prices Performance Management	.283	3.586
Insider Dealings	.308	3.252

#### **4.7 Correlation Analysis**

Pearson's Correlation Coefficient was computed to show the relationship existing between variables. The study's dependent variable is Creative Accounting (CA) and the independent variables consist of Management compensation (MC), Contractual Obligations (CO), Tax Management (TM), Share Price Performance management (SPP) and Insider Dealing (ID). The results are tabulated in table 4.42

Table 4.42 : Correlation Matrix

<b>Variable</b>	<b>CA</b>	<b>MC</b>	<b>CO</b>	<b>TM</b>	<b>SPP</b>	<b>ID</b>
CA	1.000					
MC	0.4922**	1.000				
CO	0.4104**	0.2290	1.000			
TM	0.5804**	0.3643**	0.3133**	1.000		
SPP	0.1617	0.2780	0.0769	0.4624	1.000	
ID	0.3786**	0.2510	0.1642	0.3264**	0.1256	1.000

\*\*Correlation is significant at the 0.01 level (2-tailed).

The results in table 4.42 Indicate that there is a strong positive correlation of 0.49 between Creative Accounting and management compensation of companies listed at the

NSE. The p value is 0.000 implying that the relationship is significant at 1% level. This means that Management Compensation is a strong determinant of Creative Accounting among listed companies at the NSE. The results in table 4.40 also indicate that there is a strong positive correlation of 0.41 between contractual obligations and creative accounting, which means that the relationship is direct and that contractual obligation is a strong indicator of creative accounting among companies listed at the NSE. The p value is 0.000 implying that the relationship is significant. The table also shows that there is a strong positive correlation of 0.580 between Tax Management and Creative Accounting among companies listed at the NSE. The p value is actual 0.000 implying that the relationship is significant. It is also evident that there is a weak positive correlation of 0.162 between Share Price Performance and Creative Accounting among companies listed at the NSE. The p value is actual 0.077 implying that the relationship is insignificant. The results further indicate that there is a strong positive correlation of 0.379 between Insider dealings and Creative Accounting among companies listed at the NSE. The p value is actual 0.000 implying that the relationship is significant.

## **4.8 Regression analysis**

This section describes the linear regression models the relationship between the dependent variable Creative accounting and the independent variables Managements compensation, Contractual Obligations, Tax Management, Share Price Performance management and Insider dealings.

### **4.8.1 The Original Model**

The results in table 4.41 indicate coefficient of determination ( $R^2$ ) of 0.5003 and coefficient of correlation (R) of 0.7073. R value points to a strong linear relationship between Managements compensation, Contractual Obligations, Tax Management, Share Price Performance management and Insider dealings on one side, and creative accounting among companies listed at the NSE. The  $R^2$  indicates that explanatory power

of the independent variables is 0.5003. This means that about 50.03% of the variation in Creative Accounting is explained by the study model

$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(SPP) + \beta_5(ID)$$

However, 49.97% of the variation in creative accounting is unexplained by the model. Adjusted R<sup>2</sup> is a modified version of R<sup>2</sup> that has been adjusted for the effect of increase in the number of predictors in the model. The adjusted R<sup>2</sup> of 0.4778 which is slightly lower than the R<sup>2</sup> value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R<sup>2</sup> of indicates that 47.78% of the changes in Creative accounting is explained by the model and 52.22% is not explained by the model

$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(SPP) + \beta_5(ID)$$

This means that the influence of all the independent variables that is Managements compensation, Contractual Obligations, Tax Management, Share Price Performance management and Insider dealings on Creative accounting among listed companies at the NSE is somehow strong.

**Table 4.43 – Overall Model of Dependent and independent variables**

Model	R	R square	Adjusted R Square
1	0.7073	0.5003	0.4778

The ANOVA test in table 4.44 on the overall model indicates that the independent Managements compensation, Contractual Obligations, Tax Management, Share Price Performance management and Insider dealings have a significant effect on creative

accounting among companies listed at the NSE since the p value is actual 0.000 which is less than 5% level of significance. The linear regression model

$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(SPP) + \beta_5(ID)$$

Where CA = Creative Accounting, MC = Management Compensation, CO = Contractual Obligations, TM = Tax Management, SPP = Share Price Performance management, ID = Insider Dealings. The P value was 0.000 implying that the model was significant. This therefore implies that the factors significantly affect Creative Accounting among listed companies at the NSE in Kenya.

**Table 4.44 – ANOVA of Dependent and independent variables**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	59.6106	11.92212	22.2283021	0.0000
Residual	111	59.5347	0.536349		
Total	116	119.1453			

**a. predictors: (constant), Managers compensation, Contractual Obligations, Tax Management, Share Price Performance, Insider Dealings**

**b. dependent variable: Creative Accounting**

Table 4.45 shows results of ANOVA test which reveal that the independent variables (Managers compensation, Contractual Obligations, Tax Management Share price performance management and Insider Dealings) have significant effect on creative accounting since P-value is .000 which is less than 5% level of significance.

**Table 4.45 – Model Testing – Multiple regression analysis**

<b>Coefficients Model</b>	<b>Un-standardized Coefficients</b>		<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>		
(Constant)	-.883	.374	-2.363	.019
Management compensation	.258	.075	3.445	.001
Contractual Obligations	.217	.071	3.044	.003
Tax Management	.256	.069	3.723	.000
Share price performance	.111	.076	1.475	.143
Insider dealings	.179	.079	2.251	.026

a. Dependent Variable: Creative Accounting :  $R^2 = 0.500$

The study used the results on table 4.45 to decide on whether to accept or reject the study hypothesis.

**H<sub>01</sub>:** Manager's compensation has no significant influence on creative accounting among Corporations listed at NSE.

For the first hypothesis the null hypothesis was rejected and the alternative hypothesis taken that the Managers compensation significantly influences creative accounting among the listed companies at the NSE. This is because the p-value 0.001 < 0.05 making the coefficient of Managers compensation significant in the model.

**H<sub>02</sub>:** Contractual obligations does not significantly influence creative accounting among Corporations listed at NSE

For the second hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Contractual obligations significantly influence Creative accounting among

listed companies at the NSE. This is because the p-value  $0.003 < 0.05$  making the coefficient of contractual obligations significant in the model.

**H<sub>03</sub>:** Tax management does not significantly influence creative accounting among Corporations listed at NSE.

For the third hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Tax Management significantly influences creative accounting among listed companies at the NSE. This is because the p-value  $0.000 < 0.05$  making the coefficient of Tax management significant in the model.

**H<sub>04</sub>:** Share price performance management does not significantly influence creative accounting among Corporations listed at NSE.

For the fourth hypothesis the alternative hypothesis was rejected and the null hypothesis taken that Share price performance management does not significantly influence creative accounting among listed companies at the NSE. This is because the p-value  $0.143 > 0.05$  making the coefficient of Share price performance management not significant in the model.

H<sub>05</sub>: Insider dealings have no significant influence on creative accounting among Corporations Listed at NSE.

For the fifth hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Insider dealings significantly influence creative accounting among listed companies at the NSE. This is because the p-value  $0.026 < 0.05$  making the coefficient of Insider dealings significant in the model. With the results, the original conceptual framework was revised and Share Price Performance management dropped from the model.

#### **4.8.2 The Revised Model**

A variable is dropped if its removal causes an insignificant increase in deviance (Harris *et al.*, 2014). The study therefore removed share price performance management from

the model and carried out a second regression analysis in order to establish the effect of its exclusion. After dropping one of the independent variables which is Share Price Performance management, new regression analysis was carried out on the relationship between the dependent variable Creative accounting and the independent variables Managements compensation, Contractual Obligations, Tax Management and Insider dealings.

The results in table 4.46 indicate coefficient of determination ( $R^2$ ) of 0.6180 (an improvement from the earlier one of 0.5003) and coefficient of correlation (R) of 0.7861 (an improvement from the earlier one of 0.7073). R value points to a strong linear relationship between Managements compensation, Contractual Obligations, Tax Management and Insider dealings on one side, and creative accounting among companies listed at the NSE. The  $R^2$  indicates that explanatory power of the independent variables is 0.6180. This means that about 61.80% of the variation in Creative Accounting is explained by the study model

$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(ID)$$

However, 38.20% of the variation in creative accounting is unexplained by the model. Adjusted  $R^2$  is a modified version of  $R^2$  that has been adjusted for the number of predictors in the model by less than chance. The adjusted  $R^2$  of 0.6044 (an improvement from the earlier one of 0.4778) which is slightly lower than the  $R^2$  value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted  $R^2$  of indicates that 60.44% of the changes in Creative accounting is explained by the model and 39.56% is not explained by the model

$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(ID)$$

This means that the influence of all the independent variables that is Managements compensation, Contractual Obligations, Tax Management and Insider dealings on Creative accounting among listed companies at the NSE is strong.

**Table 4.46 – Modified Model of Dependent and independent variables**

Model	R	R square	Adjusted R Square
1	0.7861	0.6180	0.6044

The study used the results on table 4.47 to decide on whether to accept or reject the modified study hypothesis.

**H<sub>01</sub>:** Manager's compensation has no significant influence on creative accounting among Corporations listed at NSE.

For the first hypothesis the null hypothesis was rejected and the alternative hypothesis taken that the Managers compensation significantly influences creative accounting among the listed companies at the NSE. This is because the p-value 0.000 <0.05 making the coefficient of Managers compensation significant in the model.

**H<sub>02</sub>:** Contractual obligations does not significantly influence creative accounting among Corporations listed at NSE

For the second hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Contractual obligations significantly influence Creative accounting among listed companies at the NSE. This is because the p-value 0.002 <0.05 making the coefficient of contractual obligations significant in the model.

**H<sub>03</sub>:** Tax management does not significantly influence creative accounting among Corporations listed at NSE.

For the third hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Tax Management significantly influences creative accounting among listed companies at the NSE. This is because the p-value  $0.000 < 0.05$  making the coefficient of Tax management significant in the model.

$H_{04}$ : Insider dealings have no significant influence on creative accounting among Corporations Listed at NSE.

For the fourth hypothesis the null hypothesis was rejected and the alternative hypothesis taken that Insider dealings significantly influence creative accounting among listed companies at the NSE. This is because the p-value  $0.047 < 0.05$  making the coefficient of Insider dealings significant in the model. With the results, the original conceptual framework was modified and one of the practices influencing creative accounting among listed companies at the NSE was removed.

**Table 4.47 – ANOVA of Dependent and independent variables**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	73.6331	18.4083	45.3005	0.0000
Residual	112	45.5122	0.4064		
Total	116	119.1453			

**a. predictors: (constant), Managers compensation, Contractual Obligations, Tax Management, Insider Dealings**

**b. dependent variable: Creative Accounting**

Table 4.47 shows results of ANOVA test which reveal that the independent variables (Managers compensation, Contractual Obligations, Tax Management and Insider Dealings) have significant effect on creative accounting since P-value is .000 which is less than 5% level of significance.

**Table 4.48 – Model Testing – Multiple regression analysis**

Model	Un-standardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	-.579	.272	-2.127	.036
Management compensation	.383	.051	7.451	.000
Contractual Obligations	.199	.061	3.235	.002
Tax Management	.244	.055	4.448	.000
Insider dealings	.139	.069	2.007	.047

a. Dependent Variable: Creative Accounting :  $R^2 = 0.618$

Since the modified linear multiple regression model of the study was

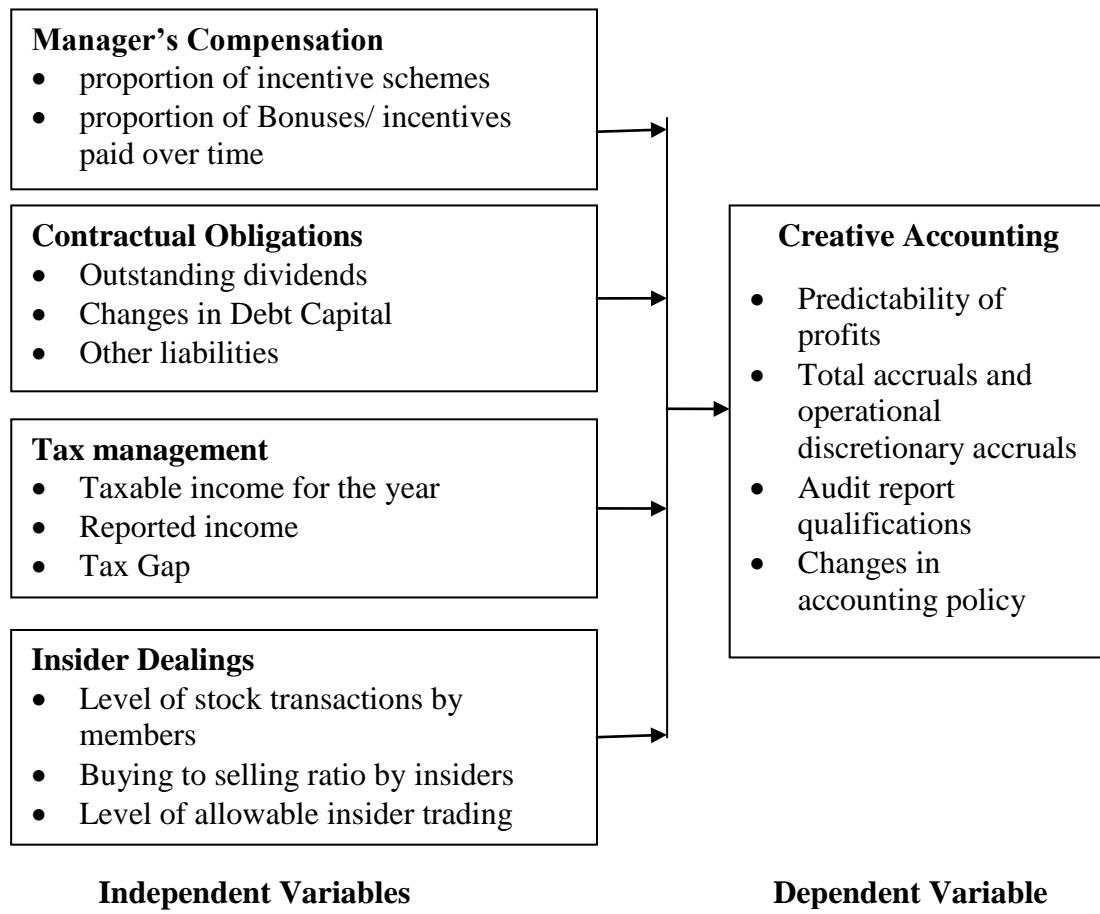
$$CA = \beta_0 + \beta_1(MC) + \beta_2(CO) + \beta_3(TM) + \beta_4(ID)$$

The estimated value of the model was found by inserting the unstandardized beta coefficients values in the modified study model. The Constant was -0.579, showing that even in the absence of the determinants of financial risk of listed companies at NSE, there is an inherent degree of creative accounting which is constant to all the firms. The  $\beta_1$  gave a value of 0.383,  $\beta_2$  gave a value of 0.199,  $\beta_3$  a value of 0.244 and  $\beta_4$  a value of 0.139. To find the estimated value of the model hence;

$$CA = -0.579 + 0.383(MC) + 0.199(CO) + 0.244(TM) + 0.139(ID)$$

With the results, the original conceptual framework was modified by dropping Share price performance management from the model since it had no significant effect on creative accounting. The modified model captured adequately the management practices

that have an influence on creative accounting among the firms listed at NSE as shown in Figure 4.6 which forms the optimal model of the study.



**Figure 4.6: Optimal Model Framework**

### 4.8.3 Model Testing

The model was tested using three scenarios, that is, the worst case, best case and the moderate case scenarios. In the worst case scenario the study assumes very high degree of practices influencing creative accounting (at a measure of 5). The results under the worst case scenario were as computed below and also represented by figure 4.6

$$CA = -0.579 + 0.383(MC) + 0.199(CO) + 0.244(TM) + 0.139(ID)$$

$$CA = -0.579 + 0.383(5) + 0.199(5) + 0.244(5) + 0.139(5) = 4.25$$

The results of the worst case scenario fall between 4 and 5 which means, the resultant level of creative accounting is between very high and high.

The results of a best case scenario the where the study assumes very low degree of practices influencing creative accounting (at a measure of 1) are as calculated below.

$$CA = -0.579 + 0.383(MC) + 0.199(CO) + 0.244(TM) + 0.139(ID)$$

$$CA = -0.579 + 0.383(1) + 0.199(1) + 0.244(1) + 0.139(1) = 0.39$$

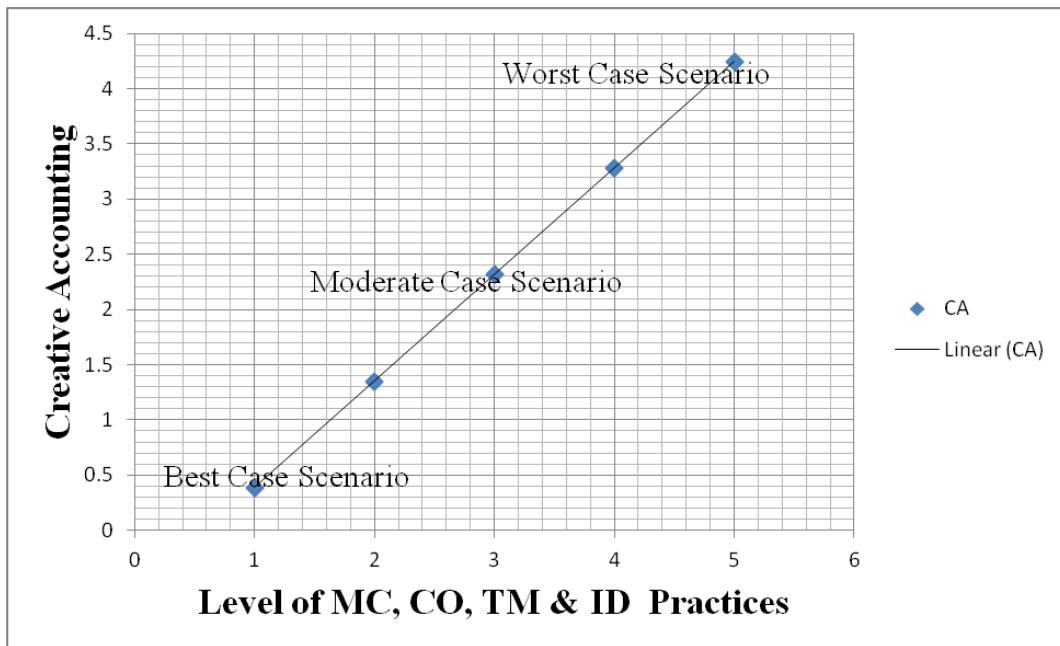
The best case scenario results fall between 0 and 1 which means, the resulting level of creative accounting is between very low and none.

The results of a moderate case scenario the where the study assumes medium degree of practices influencing creative accounting (at a measure of 3) are as calculated below.

$$CA = -0.579 + 0.383(MC) + 0.199(CO) + 0.244(TM) + 0.139(ID)$$

$$CA = -0.579 + 0.383(3) + 0.199(3) + 0.244(3) + 0.139(3) = 2.39$$

The moderate case scenario results fall between 2 and 3 which means, the resulting level of creative accounting is between low and medium.



**Figure 4.7: Model testing**

In the worst case scenario, creative accounting is high due to very high level of management's compensation, contractual obligations, tax management and insider dealings. In moderate case scenario, creative accounting is average as a result of medium level of management's compensation, contractual obligations, tax management and insider dealings. Finally best case scenario, creative accounting is very low due to very low level of management's compensation, contractual obligations, tax management and insider dealings. This therefore indicates that, the accounting practices under the study are quite a significant influence on creative accounting among the companies listed firm at the NSE in Kenya.

#### 4.9 Other Management Practices influencing creative accounting

The respondents were required to suggest other factors that affects monitoring and evaluation of projects in the county. Very many respondents opted not to respond to this question, however, the responses that were given are what were considered. Most of

suggestions made by the respondents were analyzed and grouped, and the main points identified which were not much different from the ones that the study had envisioned.

Mangers age was one of the factors that was identified by respondents as having an influence on creative accounting. A number of respondents believed that younger managers were more likely to engage in creative accounting as compared to the older managers. This is perhaps because of their inexperience or their desire to grow quickly in their career.

Goodwill of the firm was another factor that respondents identified. The respondents felt that some managers engage in creative accounting with an aim of protecting the goodwill already earned. Another reason could be in order to gain more goodwill. A well performing company usually has a positive goodwill among the various stakeholders.

Some respondents reported that some managers and accountants engage in creative accounting in order to conceal or perpetrate fraud. For example some accountants may increase bad debts provision with an aim of increasing the actual bad debts written off, where they can secretly benefit from the debts payments. Insider dealings may sometimes also be considered as a fraud if the motives are not genuine.

Another reason why creative accounting is practiced in some organizations is to boost shareholders confidence. The shareholders expectations are that their company will continuously grow and hence increase their returns. Managers may portray a healthy company through financial reporting so as to boost the investors' confidence. This factor is allied to share price performance management which has been discussed in detail by this research.

Mangers are likely to engage in creative accounting as a way of improving their performance image in the eyes of shareholders and other stakeholders. Manager's performance assessment is carried out on the basis of the firm's profitability and growth. Managements desire to be rated above their peers in terms of performance may persuade

them to engage in creative accounting. This factor is also closely related to management's compensation as predicted by this study.

Weak controls were also identified as a motivation for engaging in creative accounting. Where the firms internal control systems are weak, the managers and accountants may feel confident to engage in creative accounting since they know the system may not detect easily. In some instances the respondents reported that some managers intentionally weaken the system so as to give room for creative accounting.

Credit achievement was identified as one of the motivations behind creative accounting by the firms. Managers may create accounts to portray their firm as financially sound. Financially stable companies are likely to easily obtain more lines of credit at low interest rates, as well as more easily issue debt financing or issue bonds on better terms. This issue is closely related to contractual obligations which have been discussed in details by this research.

Reduction of sales volatility is another factor that was identified by respondents. Income smoothing is actually the method used to conceal the erratic nature of sales and profits by showing stable revenue over time. This factor is closely connected to management compensation, since the reward for managers is dependent on the stable income.

Another reason identified by respondents on why the firms resort to creative accounting is to augment the company's stock value. The managers achieve this by issuing additional stock or shares. It can also be achieved by reporting increased sales, even though no real profit was made. This also misleads prospective investors into thinking that the corporation is experiencing growth and is economically strong.

#### **4.10 Discussion of key findings**

The results of the study point out to some key findings which answer the research questions;

#### **4.10.1 Managers Compensation**

The first Research question was on the effect of manager's compensation on creative accounting among Corporations listed at NSE. The results indicate that Managers compensation positively influences Creative Accounting among companies listed at the NSE more than Contractual obligations, Tax management, Share Price Performance management and insider dealings as shown by the unstandardized beta coefficients. The table 4.43 and Table 4.46 of regression analysis show that the managers compensation has a positive and significant influence on creative accounting as shown by a t value of 7.45 (3.44 in table 4.43), which is greater than the critical t of 1.99 and a p value of 0.00 ( $p < 0.05$ ) at 95% level of confidence.

The Pearson coefficient of correlation (R) also indicated a strong positive relationship between Managers compensation and creative accounting. Through R it was evident that increase in manager's compensation which pegged on firms profitability leads to an increase in creative accounting. These results are corroborated by the findings of Njogu *et al.* (2014) who expressed that there was a correlation between executive compensation and creative accounting. Moreover the Bonus Scheme Hypothesis which is one of the premises under Positive Accounting Theories presumes a connection between bonus schemes used to compensate and motivate managers and directors with creative accounting (Scott, 2000).

Most respondents agree that managers have inducements to manipulate earnings in order to maximize either the firm's or manager's wealth and this is consistent with the findings by Becker *et al.* (2010). Additionally, most of the respondents link the incentive compensation plans for corporate officers and key employees to increased creative accounting and this may facilitate financial decisions which regulate firm's earnings. The results are in line with the findings by Gosh, (2010). The majority of the respondents indicate that manager's compensation depends on firm's profitability. These results are corroborated by the findings by Dutta and Qintao (2014) and Assih *et al.*

(2013), who suggested that management bonus schemes are pegged on profitability, may lure management into creative accounting via earnings management. Further managers use accounting discretion to manage earnings in order to maximize cash bonuses (Beaudion *et al.*, 2015). According to Ordóñez and Welsh (2015), Performance-based compensation system with random bonuses increased dishonesty since there is a temptation to engage in earnings management involving 'the strategic exercise of managerial discretion in influencing the earnings figure reported

Most of the respondents agree that manager's compensation have been stable for the last ten years. This was corroborated by the analysis of secondary data. The stability in managements earning could also have been necessitated by presence of the fixed salary component in the compensation package. All the respondents picked the fixed salary as one of the compensation component. Overall therefore, the findings indicate that manager's compensation significantly affects creative accounting among listed companies at the NSE and there is evidence that pegging management's incentive on firm's profitability is one of the management practices influencing creative accounting.

#### **4.10.2 Contractual Obligations**

The second research question was on the influence of contractual obligations on creative accounting among Corporations listed at NSE. The results indicate that Contractual obligations positively influences creative accounting among companies listed at the NSE just like the other variables. All of which positively influence creative accounting as shown by the unstandardized beta coefficients. The table 4.43 of regression analysis shows that contractual obligations has a positive and significant influence on creative accounting as shown by a t value of 3.235 (more than critical t of 1.99) and a p value of 0.002 ( $p < 0.05$ ) at 95% level of confidence.

The Pearson coefficient of correlation (R) also indicated a strong positive relationship between Managers compensation and creative accounting. Through R it was evident that increase in contractual obligations on the firms profitability leads to an increase in

creative accounting. These results were corroborated by Omoro *et al.* (2015) who expressed that, higher net earnings will reduce the probability of technical default on the debts as proposed by debt covenant hypothesis, one of the premises of positive accounting theories.

The results show that most of the respondents agree that contractual obligations lead to creative accounting. According to Cotlet *et al.* (2012), debt covenants and credit ratings are some of the management decisions are necessary in a strategy of avoiding the entities' rules and boundaries both organizational and legal. The Financial Numbers Game, creative accounting could be employed in exchange for lower corporate borrowing costs due to an improved credit rating (Gosh, 2010). These two researches confirm the finding that creative accounting is influenced by debt covenants and firms contractual obligations.

In addition, most respondents indicate that contractual obligations depend on the firm's profitability. They agree that high profits increase the firm's credit rating and hence increased possibility of debt covenants. These results were in line with Njuguna and Moronge (2013), who established that a relationship exists between agency cost of ownership and some other factors associated with managerial behavior among them debt contracts.

The results are also corroborated by the study by Olouch *et al.* (2013) who expressed that there is an effect on the overall accruals quality (an indicator of creative accounting) on the cost of capital(including cost of debt) among the various segments of the NSE. These results indicate that debt covenants, credit ratings, cost of debt and other contractual obligations related practices influence creative accounting among the listed Companies.

#### **4.10.3 Tax Management**

The third research question was about the effect of tax management on creative accounting among Corporations listed at NSE. The results indicate that Tax management positively influences creative accounting among companies listed at the NSE more than Contractual obligations, Share price performance management and insider dealing. Its influence is however less than that of managers compensation as shown by the unstandardized beta coefficients. The table 4.43 of regression analysis shows that the capital structure has a positive and significant influence on financial risk as shown by a t value of 3.723 (greater than critical t of 1.99) and a p value of 0.000 ( $p < 0.05$ ) at 95% level of confidence.

The Pearson coefficient of correlation (R) also indicated a strong positive relationship between Managers compensation and creative accounting. Through R it was evident that increase in tax management such as tax avoidance and/or evasion leads to an increase in creative accounting. This is in line with the political cost hypothesis one of the prepositions of positive accounting theories and also findings by Cotlet *et al.* (2012), who observed that taxation is a major factor encouraging creative accounting since taxable profit is calculated based of the accounting figures in developing countries.

Results indicate that most respondents agreed that tax avoidance and/or evasion can lead to creative accounting. This was in line with observations by Kuria (2013) and Kamau *et al.* (2012) who affirmed that tax avoidance is one of the motivations of creative accounting in Kenya. In addition, most respondents indicate that tax management depends on the firm's profitability. They agree that high profits lead to increase in taxation and hence for the purposes of tax, firms prefer lower profits. These results were in line with Cotlet *et al.* (2012) and Sanusi and Izedonmi (2014) enlisted the various reasons why firms engage in creative accounting and among them include tax evasion which is based on the profits of the firm.

Study results indicated that the majority of the respondent found that tax payable by the firm has been steady just as the profits. However the results of secondary data analysis showed otherwise. The findings based on the secondary data are corroborated by the findings by Lin, Lu and Zhang (2012) who alluded to the fact that, tax induced earnings management is on the increase. The results therefore conclusively indicate that tax management has a significant influence on creative accounting among listed Companies at the NSE.

#### **4.10.4 Share Price Performance Management**

The fourth research question was about the effect of share price performance management on creative accounting among Corporations listed at NSE. The results indicate that share price performance management has an insignificant positive influence on creative accounting among companies listed at the NSE as shown by the unstandardized beta coefficients. The table 4.43 of regression analysis shows that the share price performance management has a positive and insignificant influence on financial risk as shown by a t value of 1.475 (Less than the critical t of 1.99) and a p value of 0.143 ( $p > 0.05$ ) at 95% level of confidence.

The Pearson coefficient of correlation (R) also indicated a weak positive relationship between share price performance management and creative accounting. Through R it was evident that increase in share prices does not lead to an increase in creative accounting.

Majority of the respondents disagreed that share price performance leads to creative accounting. These findings contradict several studies such as Adibah Wan Ismail *et al.* (2013) who expressed that IFRS-based earnings explain more of the variation in share values; Effiok and Eton (2012) who established that a positive relationship between accounts manipulation and management decisions measured by share price performance exists; and Gosh, 2010 who expressed that indeed firms perform accounts

manipulations in order to portray a favorable financial position which will have an effect on the share prices.

On the other hand a majority of the respondents were of the view that share prices in the market are dependent on the firms profitability, the findings are in line with Ouma (2012) who found out that there was a correlation between dividend payout which is dependent on profits and the market share prices. Akenbor and Ibanichuka (2012) correlated creative accounting with a desire by management to boost up the market value of shares. This was also explained in the case of fall of Enron (Omurgonulsen & Omurgonulsen, 2009)

The results of the study therefore indicated that the majority of the respondents agree that market share prices are dependent on the firm's profitability. However share price performance is not a significant motivator for firms to engage in creative accounting. These results therefore conclusively indicate that although the market share prices of the listed Companies are influenced by profits, the performance of share prices does not significantly influence creative accounting among the listed Companies at the NSE.

#### **4.10.5 Insider Dealings**

The last research question was on the effect of insider dealings on creative accounting among Corporations listed at NSE. The results indicate that insider dealings positively influences creative accounting among the companies listed at the NSE more than share price performance management. Its influence is however less than that of management compensation, contractual obligations and tax management as shown by the unstandardized beta coefficients. The table 4.43 of regression analysis shows that insider dealings has a positive and significant influence on financial risk as shown by a t value of 2.251 (greater than the critical t of 1.99) and a p value of 0.026 ( $p < 0.05$ ) at 95% level of confidence.

The Pearson coefficient of correlation (R) also indicated a strong positive relationship between insider dealings and creative accounting. Through R it was evident that increase in insider dealings lead to an increase in creative accounting.

The majority of the respondents agreed that insider dealings can lead to creative accounting even though a majority expressed those insider dealings was not a practice in their organizations. This finding that creative accounting may be motivated by insider dealings was consistent with Waweru (2014) who observed that insider dealing activities are related to creative accounting, all of which reduces the quality of corporate governance in Sub-Saharan Africa and Iraya *et, al* (2015) who affirmed that the shareholding by insiders has a negative effect on earnings management, hence implying a clear relationship between the two.

Results of the study show that there are changes in the employee's and director's shareholding. Change in the shareholdings may be an indicator of insider trading. Amat and Gowthorpe (2004) explained that directors engaging in 'insider dealing' in their company's shares may use creative accounting as a strategy to delay the release of information for the market, thus enhancing their opportunity to gain advantage from inside knowledge. The respondents also indicated that there is stability in employees and directors share transactions, however the secondary data confirmed that there were changes in the shareholdings. According to Bewaji (2012), insider trading is a recipe for creative accounting. These findings are corroborated by the findings by Beneish *et al.* (2012) established a correlation between insider trading incentives for income and increasing earnings management. In addition, Sawicki and Shrestha (2008) confirmed the relationship between insider trading and earnings management by analyzing the association between discretionary accruals and insider trading and firm valuation.

The results of the study conclusively indicate that insider dealings are a practice that significantly influences creative accounting among listed Companies at the NSE in Kenya.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter summarizes the findings and provides the conclusion and recommendations in line with the topic of study that is to analyze the management practices influencing creative accounting among the corporations listed at Nairobi Securities Exchange in Kenya.

#### **5.2 Summary**

The study collected and presented data in chapter four with specific attention given to the objectives and research questions of the study which were used as units of analysis. Theoretical and empirical literature was used to compare the results of the study with previous studies. The study was meant to analyze the management practices that influence creative accounting among corporations listed at the NSE in Kenya. The study targeted the listed companies at the NSE. Population of 64 listed companies as at July 2015 was used to derive the sample size. The summary and discussion followed the study hypothesis formulated in chapter one. The influence of management compensation, contractual obligations, tax management, share price performance management and insider dealings on creative accounting was explored. The factors were derived from empirical literature on creative accounting and related practices. A pilot study was conducted to test reliability of the research instrument using a sample of ten firms, selected using convenience sampling technique. In line with the findings presented and discussed in the previous chapter, the study derived the following findings.

### **5.2.1 Influence of managers compensation on creative accounting**

The research findings indicated that manager's compensation positively influence creative accounting among Companies listed at the NSE in Kenya. This is indicated by the results of inferential statistics such as ANOVA and regression analysis. The findings indicate that pegging manager's compensation (such as bonus schemes) on profits is the most significant influencing factor of creative accounting among Companies listed at the NSE in Kenya. The person engaging in creative accounting through manager's compensation in most cases seeks their personal gain.

### **5.2.2 Influence of contractual obligations on creative accounting**

The findings from inferential statistics indicate that there is a positive relationship between contractual obligations and creative accounting among companies listed at NSE. The findings from the secondary data analysis of change in debt covenants indicate that there is a correlation between debt covenants and firms profits. Debt covenants and the need for fair credit rating which are dependent on the profits have high influence on creative accounting consistent with the positive accounting theories. The managers engaging in creative accounting through contractual obligations in most cases seeks corporate gain, that is, they engage in creative accounting for the benefit of the organization.

### **5.2.3 Influence of tax management on creative accounting**

Findings indicate that tax management positively influences creative accounting among the Companies listed at the NSE in Kenya. The study explored tax avoidance and/or evasion and its dependence on the profits or income of the firm. The research also analyzed the tax gap as a way of measuring tax avoidance and/or evasion. Tax management was found to be dependent on the firm's profits which are prone to creative accounting in an attempt to reduce costs. The results on tax management are in line with the assertions of positive accounting theories. The study shows that there is a significant

effect of tax management on creative accounting among the listed companies at the NSE. Tax management's main objective is to reduce costs through minimizing the tax payable. This means that the person engaging in creative accounting for this purpose does it for the good of the organization.

#### **5.2.4 Effect of share price performance Management on creative accounting**

The study assessed the market share prices and their dependence on the firm's profit. The findings indicated a weak positive relationship between share price performance management and creative accounting among the listed Companies. This is against findings of a number of studies which suggests that share prices improve or deteriorate depending on the profitability of the firm. The weak correlation indicates that although change in profits leads to a change in market share price, the influence on creative accounting tendencies among the companies listed at the NSE is insignificant or minimal. The person engaging in creative accounting for the purpose of share price performance management, in most cases seeks corporate gain, that is, they engage in creative accounting for the benefit of the organization

#### **5.2.5 Effect of Insider dealing on creative accounting**

The relationship between insider dealings on one hand and creative accounting on the other hand is positive and significant as indicated by the findings. This implies that increase insider dealing activities leads to an increase in creative accounting among companies listed at the NSE in Kenya. The findings indicate that directors engaging in 'insider dealing' in their company's shares may use creative accounting as a strategy to delay the release of information for the market, and hence create a false impression to the investors and the public. The person engaging in creative accounting through insider dealings most of the time seeks their personal gain. It means that there is crucial information that they are not willing to release to the public for personal reasons.

### **5.3 Conclusions**

The aim of this study was to evaluate the influence of practices that induces the firms to engage in creative accounting among companies listed at the NSE in Kenya. The results obtained by the study indicate that there is a positive relationship between manager's compensation and creative accounting among the listed companies at the NSE. The regression analysis showed that there is a positive relationship  $R=0.4922$  between the independent variable management compensation and creative accounting. Attaching management compensation on the firms profit is therefore one of the strong practices that lead to creative accounting among the listed companies since high profits implies higher managers' personal benefits, hence higher motivation for aggressive accounting otherwise referred to as creative accounting.

The regression analysis showed a positive and significant relationship ( $R = 0.4104$ ) between contractual obligations and creative accounting among listed companies at the NSE. The study identified that contractual obligations are based on the firm's ability to repay debts which is a function of profits. Attempt to make the company appear to be financially healthy lures a firm to engage in creative accounting. A financially stable organization usually has a higher credit rating and can easily access credit. Contractual obligations results are in line with debt covenant hypothesis; one of the postulates of positive accounting theories. The study therefore concludes that contractual obligations are a strong indicator of creative accounting among the listed companies at the NSE.

The regression analysis on tax management and the dependent variable creative accounting indicates a positive and a strong relationship ( $R = 0.5804$ ). The study established that tax payable is dependent on the profits; therefore if the management wishes to manage taxes, they can manipulate the firm's profits. Tax gap analysis was also carried out in order establish the level of tax avoidance and/or evasion. There was huge variance among the various sectors with energy sector recording the highest positive gap and telecommunication and technology sector recording the highest

negative gap. The study concluded that tax management is a strong practice that influences creative accounting among the listed companies on the NSE.

The results from study showed a positive and weak relationship between share price performance management and creative accounting among listed companies at the NSE. The results further indicate that share price performance management has no significant influence on creative accounting among the listed companies. Though the respondents believe that market share price performance management is dependent on the firm's profitability, they were not convinced that share price performance management is a significant practice that leads to creative accounting. The study concluded that share price performance management is a practice that does not significantly influence creative accounting among the listed companies at the NSE.

Inferential statistics showed that insider dealings are a significant practice leading to creative accounting (p value of 0.026). There was a positive moderate relationship ( $R = 0.3786$ ) between insider dealings and creative accounting among listed companies at the NSE. Increased insider trading by the employees and managers of the firm is an indicator that there is information only known to the insiders, which they are not willing to share with the investors. Insider dealings concept is a demonstration of both information theory and resources dependence theory. The influence of insider dealings on creative accounting is not as strong compared with manager's compensation, contractual obligations and tax management. The study concluded that insider dealings are a practice that significantly influences creative accounting among the listed companies at the NSE.

Both primary and secondary data sources confirmed that there was some degree of creative accounting being committed by firms listed at NSE. In summary the study found out that Telecommunication and technology sectors showed the highest level creative accounting being practiced while automobile and accessories sector indicated the lowest likelihood of creative accounting being committed. The other sectors that

ranked high in terms of creative accounting include insurance, energy and petroleum, investment and banking. The other sectors with low level of creative accounting include agricultural, commercial and allied, manufacturing and allied, and construction and allied. However the level of creative accounting in telecommunication and technology sector is abnormally above the other sectors. This could be attributed to the size of their profit figures.

On the overall however, findings indicate the relationship between four independent variables and the dependent variable is significant, hence the conclusion that management compensation, contractual obligations, tax management and insider dealings are practices that significantly influence creative accounting among companies listed at the NSE in Kenya. On the other hand there was no significant relationship between Share price performance management and creative accounting among the listed companies. Management compensation and tax management are the highest influencers of creative accounting among the listed companies; this may be because these two factors have a direct benefit to either the forms directors and management or the firm itself. Contractual obligations also has a significant influence on creative accounting, however the influence is not high probably due to the fact that there is no personal benefit for the directors and managers of the firm. Insider dealings have the second lowest influence on creative accounting among the independent variables; this may be as a result of its infrequent occurrence despite the personal benefit attached to the employees, managers or directors involved in such practices. Lastly, share price performance management was found to be an insignificant influencer of creative accounting despite its dependence on profits. This could be due to the fact that share price performance management may not have a direct benefit to the directors or managers of the organization.

## **5.4 Recommendations**

Following the findings of the study and the implications on the management practices influencing creative accounting among listed companies at the Nairobi Securities Exchange, the study gives the following recommendations.

### **5.4.1 Managerial recommendations**

Issuance of extended audit reports by the independent auditors should be encouraged. This comes from the finding in this study that all the sampled companies received unqualified audit reports despite some indication that creative accounting may be occurring in such firms.

Improved corporate governance for improving financial reporting quality and to increase the confidence of investors in company's financial report. Issues of insider dealings and tax management can be greatly reduced through proper governance processes.

The organizations may consider avoiding performance based compensation system so as to reduce the temptation of influencing the earnings figure through creative accounting

In some instances managers may engage in creative accounting so as to improve credit rating in an attempt to attract investors. This form of creative accounting is commonly referred to as window dressing. Competent auditors should be in a position to detect this practice while ethical auditors should be able to report that the financial statements show true and fair view of the company state of affairs as at the reporting date.

Accountants, clerks and bookkeepers take a certain amount of ethics courses each year. In addition, creative accounting should be introduced to the curriculum for accounting students in order to stress on the ethical aspects of accounting.

Organizations should also maximize use of internal audit department which is instrumental in monitoring governance, risk management and control processes.

Presence of active and independent internal audit department can play a key role in sealing internal control weaknesses which can be exploited by the perpetrators of creative accounting.

#### **5.4.2 Policy recommendations**

Bodies that are charged with responsibility of regulating creative accounting should make law which reduces the chances of alternative accounting methods being employed by the firms. They should make regulations that encourage consistency concept by restricting unnecessary switches between different accounting policies.

In an attempt to address the issue of creative accounting emanating from managements compensation, where management create accounts in order to increase their personal benefits, independent directors can be selected by the shareholders which works upon the managers activities and keep eyes on managers activities.

Government and other regulatory agencies such as CMA should put in place clear rules and regulations to improve financial reporting and to minimize the possibilities of creative accounting related practices such as insider dealings, tax management and debts covenants.

#### **5.5 Study's Contribution to Knowledge**

The findings of this study contribute to the existing body of knowledge on the management practices influencing creative accounting among the corporations listed at Nairobi Securities Exchange in Kenya. Some existing literature has alluded that creative accounting is a preserve of small organizations (Baralexis, 2004) thus mainly focusing on creative accounting among small and medium term firms. This study however established that creative accounting was being practiced by firms listed at NSE but the practice was not widespread. The existing literature also focused more on the techniques and methods used by firms to create accounts as well as the techniques of detecting

creative accounting (Cotlet *et al.*, 2012). Not much that had been done in terms of Africa's developing and/or emerging markets such as Kenya yet there are major cases of creative accounting and related practices by management. Thus, the findings of this study have contributed in filling this knowledge gap by focusing on the listed companies in Kenya. This study also analyzed the factors beyond the positive accounting theories unlike earlier studies which were confined within the theory. This study incorporated management practices associated with other theories such as Agency theory and information theory. This study also casts doubt on the idea of creative accounting for the purposes of manipulating share prices (Effiok & Eton, 2012) among companies listed at NSE in Kenya as suggested by part of the literature reviewed. Therefore, the study builds further on the recent empirical information in the field of accounting studies in explaining how creative accounting is influenced by management practices hence affecting corporate decisions.

## **5.6 Areas for further research**

This research provides more empirical evidence on management practices influencing creative accounting practices in Kenya. This research however concentrated on only five practices which are management compensation, contractual obligations, tax management, share price performance management and insider dealings. There could be more management practices which can only be explored through further research. This study focused only on the corporations listed at NSE, further research may be carried out to explore other points of focus such as SMEs and medium sized companies. More focus can also be on a specific sector of the Kenyan Economy. More research should also be carried out along this topic especially to extend the research on perspectives of creative accounting related practices and to cover more geographical locations such other countries. Further research could also be carried out to explore specifically the market share price performance management and its effect on creative accounting. This is

because there seems to be close association between the two and which was not clearly brought out by this research.

Another area that can further this research is by singling out insider dealings and its effects on creative accounting in Kenya and other developing countries. Insider dealings have brought down major corporations locally and globally. For this reason further research on this aspect can add value to the existing body of knowledge.

A research on the effects of creative accounting on the growth of Kenya's economy may also be critical in extending this research. This is because creative accounting just like any concept has its advantages and disadvantages. However there seems to be more negative effects than the benefits of creative accounting.

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## **APPENDIX 1 – QUESTIONNAIRE**

### **PRIMARY DATA SECTION**

#### **SECTION I – BACKGROUND OF THE COMPANY**

1. Which sector is your organization

Agricultural  
Commercial & Services  
Telecommunication & Technology  
Automobile & Accessories  
Banking  
Insurance  
Investment  
Construction & Allied  
Growth Enterprise Market segment  
Manufacturing & Allied  
Energy & Petroleum

2. What is your responsibility in the company

Manager  
Accountant  
Internal Auditor

#### **SECTION II – CREATIVE ACCOUNTING**

Please read the following questions and tick (✓) or put an (X) on the appropriate response that best describe your own view/perception concerning the extent of creative accounting in Kenya.

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	S Agree	Agree	Neutral	Disagree	S Disagree
		5	4	3	2	1
3	Manipulation of accounting figures (Creative accounting) is practiced in our corporation					

	for various reasons					
4	It is easy to predict the following years profits					
5	Market for the firms products has been steady for the last ten years					

### SECTION III – MANAGERS COMPENSATION

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	S Agree	Agre e	Neutr al	Disa gree	Stron gly Disag ree
		5	4	3	2	1
6.	Managers compensation depends on the firms profitability i.e. there are bonus schemes based on profits					
7.	Managers compensation may lead to modification of accounting figures (creative accounting)					
8.	Managers compensation for the last ten years have been fairly stable for your company					

- 9 What kind of benefits that accrue to top level management of the company (Tick all that Apply)
- Fixed Salary
- Performance Bonuses
- Share purchase options
- Bonus Shares

Personal benefits e.g. car, newspapers, internet etc  
 Others \_\_\_\_\_

#### SECTION IV – CONTRACTUAL OBLIGATIONS

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
10	Contractual obligations such as credit depends on the firms profitability i.e. good credit rating based on the firms profitability					
16	Contractual obligations may lead to modification of accounting figures (creative accounting)					
17	Contractual obligations for the last ten years have been fairly stable for your company					

#### SECTION V – TAX MANAGEMENT

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
18	Tax evasion and avoidance is based on the firms profitability					

19	Tax management may lead to modification of accounting figures (creative accounting)				
20	Taxes payable for the last ten years have been fairly stable for your company				

## SECTION VI – SHARE PRICE PERFORMANCE MANAGEMENT

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	Stron	Agre	Neutr	Disa	Strongl
		gly Agre e	e	al	gree	y Disagr ee
21	Share price performance depends on the firms profitability	5	4	3	2	1
22	Share price performance may lead to creative accounting					
23	Share prices for the last ten years have been fairly stable for your company					

## SECTIONVII – INSIDER DEALINGS

No	<b>On a scale of 1 to 5 indicate whether you agree or disagree with the statement:</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
24	Insider dealings depend on the firms profitability					
25	Insider dealings may lead to modification of accounting figures (creative accounting)					
26	Share transactions by company members for the last ten years have been fairly stable for your company					
27	Insider trading activities are carried out in the company					

28. Please state any other suggestions on other management practices/ factors that affect creative accounting among major corporations in Kenya that are not indicated above


Thank you for taking your time to respond to this questionnaire.

#### **SECONDARY DATA SECTION**

Fill the following table using the data from Income Statements, Statement of Financial Position and Cash Flow Statement from the respondent companies

No.	Description/ Nature of transaction	Amount (Year 2014)	Amount (Year 2013)
<b>Creative accounting</b>			
1	Annual Reported Net Income (Net profit for the year)		
2	Annual Cash generated from operations		

3	Total Assets		
4	Total Sales/ turnover		
5	Accounts receivable		
6	Gross Property plant and Equipment (GPPE)		
7	Nature of audit report given by the company auditor (Qualified vs Unqualified)		
8	Number of policy changes in inventory and other policies for the last ten years		
<b>Managers compensation</b>			
9	Annual senior managers bonuses and compensations		
10	Annual directors remuneration and benefits		
<b>Contractual obligations</b>			
11	Dividends pay out		
12	Additional debt capital		
13	Interests payable		

<b>Tax obligations</b>			
14	Annual computed taxable income		
15	Annual level of current tax		
16	Annual level of deferred tax		
17	Tax Gap		
<b>Average share prices</b>			
18	Annual average share price		
19	Annual average profits/ earnings ratio		
<b>Share transactions by company members</b>			
20	Annual value of shares sold by company directors and employees		
21	Annual value of shares purchased by company directors and employees		

Thank you for taking your time to respond to this questionnaire.

## **APPENDIX 2: INTRODUCTION LETTER**

**Date:**

Dear Respondent

**Study Title:** Practices influencing creative accounting practice among corporations listed in Nairobi securities exchange

**Researchers:** Charles Guandaru Kamau

I am humbly requesting you to fill the questionnaire for the above mentioned study. This study has been approved by the College of Human Resources Development of Jomo Kenyatta University of Agriculture and Technology. Please take note of the following matters about this research.

Participation in this study is voluntary; refusal to participate will involve no penalty. The information gathered during this study will remain confidential in secure premises during this project. Only the researchers will have access to the study data and information. There will not be any identifying names on the surveys or interview transcripts; they will be coded and the key to the code will be kept locked away. Your names and any other identifying details will never be revealed in any publication of the results of this study.

I thank you for participating in this research

Yours Sincerely  
Charles G. Kamau  
Tel: 0720 794694  
Email: [guandaruman@yahoo.co.uk](mailto:guandaruman@yahoo.co.uk)

### **APPENDIX 3: SAMPLING FRAME**

AGRICULTURAL	
1	Eaagads Ltd Ord
2	Kapchorua Tea Co. Ltd
3	Kakuzi
4	Limuru Tea Co. Ltd
5	Rea Vipingo Plantations Ltd
6	Sasini Ltd
7	Williamson Tea Kenya Ltd
AUTOMOBILES AND ACCESSORIES	
8	Car and General (K) Ltd
9	Sameer Africa Ltd
10	Marshalls (E.A.) Ltd
BANKING	
11	Barclays Bank Ltd
12	CFC Stanbic Holdings Ltd
13	I&M Holdings Ltd
14	Diamond Trust Bank Kenya Ltd
15	Housing Finance Co Ltd
16	Kenya Commercial Bank Ltd
17	National Bank of Kenya Ltd
18	NIC Bank Ltd
19	Standard Chartered Bank Ltd
20	Equity Bank Ltd
21	The Co-operative Bank of Kenya Ltd
COMMERCIAL AND SERVICES	
22	Express Ltd
23	Kenya Airways Ltd
24	Nation Media Group
25	Standard Group Ltd
26	TPS Eastern Africa (Serena) Ltd
27	Scangroup Ltd
28	Uchumi Supermarket Ltd
29	Hutchings Biemer Ltd

30	Longhorn Kenya Ltd
31	Atlas Development and Support Services
<b>CONSTRUCTION AND ALLIED</b>	
32	Athi River Mining
33	Bamburi Cement Ltd
34	Crown Berger Ltd
35	E.A.Cables Ltd
36	E.A.Portland Cement Ltd
<b>ENERGY AND PETROLEUM</b>	
37	KenolKobil Ltd
38	Total Kenya Ltd
39	KenGen Ltd
40	Kenya Power & Lighting Co Ltd
41	Umembe Ltd
<b>INSURANCE</b>	
42	Jubilee Holdings Ltd
43	Pan Africa Insurance Holdings Ltd
44	Kenya Re-Insurance Corporation Ltd
45	Liberty Kenya Holdings Ltd
46	British-American Investments Company ( Kenya) Ltd
47	CIC Insurance Group Ltd
<b>INVESTMENT</b>	
48	Olympia Capital Holdings ltd
49	Centum Investment Co Ltd
50	Trans-Century Ltd
51	Home Afrika Ltd
52	Kurwitu Ventures
53	Nairobi Securities Exchange Ltd
<b>MANUFACTURING AND ALLIED</b>	
54	B.O.C Kenya Ltd
55	British American Tobacco Kenya Ltd
56	Carbacid Investments Ltd
57	East African Breweries Ltd
58	Mumias Sugar Co. Ltd
59	Unga Group Ltd

60	Eveready East Africa Ltd
61	Kenya Orchards Ltd
62	A.Baumann CO Ltd
63	Flame Tree Group Holdings Ltd
TELECOMMUNICATION AND TECHNOLOGY	
64	Safaricom Ltd

## **APPENDIX 4: PILOT TEST ANALYSIS RESULTS**

The study conducted a pilot test analysis to ascertain if the research instrument would bring out reliable information. Reliability is the measure of internal consistency of data captured by questionnaires. The pre-test was conducted on 10 Corporations listed in Nairobi Securities Exchange. In each of the company three questionnaires were filled by the management, accountant, and the internal auditor.

The study measured the reliability through the use of Cronbach Alpha ( $\alpha$ ) which established a threshold at an alpha value of 0.7 (Kline, 1999). The study also assessed the responses and non-responses per question to determine if there were any technical snags with the questions asked and established none since all the questions meant to collect primary data were responded to. Further all the questions achieved the minimum required item total correlation.

### **1. Reliability Analysis for creative Accounting**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.807	5

The scale consisted of 5 items. The overall Alpha value was established at 0.807 which exceeded the pre-determined threshold of 0.7.

## **2. Reliability Analysis for Managers Compensation**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.856	4

The scale consisted of 4 items. The overall Alpha value was established at 0.856 which exceeded the pre-determined threshold of 0.7.

## **3. Reliability Analysis for contractual obligations**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.899	4

The scale consisted of 4 items. The overall Alpha value was established at 0.899 which exceeded the pre-determined threshold of 0.7.

#### 4. Reliability Analysis for Tax Management

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

Reliability Statistics	
Cronbach's Alpha	N of Items
.874	4

The scale consisted of 4 items. The overall Alpha value was established at 0.874 which exceeded the pre-determined threshold of 0.7.

#### 5. Reliability Analysis for Share Prices Performance Management

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

Reliability Statistics	
Cronbach's Alpha	N of Items
.843	3

The scale consisted of 4 items. The overall Alpha value was established at 0.874 which exceeded the pre-determined threshold of 0.7.

## 6. Reliability Analysis for Insider dealings

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

Reliability Statistics	
Cronbach's Alpha	N of Items
.832	4

The scale consisted of 4 items. The overall Alpha value was established at 0.832 which exceeded the pre-determined threshold of 0.7.

## 7. Reliability Analysis for the overall Questionnaire

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables

Reliability Statistics	
Cronbach's Alpha	N of Items
.782	24

The scale consisted of 21 items. The overall Alpha value was established at 0.791 which exceeded the pre-determined threshold of 0.7.

According to Kline (1999), the rule of thumb in using Cronbach alpha argues that, a coefficient of between 70% and 80% is acceptable. The researcher consequently concluded that the data the questionnaire was significantly reliable for collecting data for the research. This is because the overall Cronbatch alpha was within the range

The table (Appendix 1) further shows that the overall reliability would not be significantly affected by deleting any item in the scale. It is also observed that the overall reliability still remains within the acceptable range despite deleting each of the questions independently. An item-total correlation test was also performed to check if any item in the set of tests is inconsistent with the averaged behaviour of the others, and thus can be discarded. Everitt (2002) and Field (2005) explains that a correlation value less than 0.2 or 0.3, indicates that the corresponding item does not correlate very well with the scale overall and, thus, it may be dropped. All the questions were above the required threshold and hence no question was dropped.

## **8. Adjustments to the Questionnaire**

There was a mix-up between the primary and secondary data in the original questionnaire. The respondents could not respond to the secondary data questions immediately, however all the secondary data relevant to this study was available in financial statements. The new questionnaire has now been divided into two sections, Primary Data and Secondary Data.

## **9. Reliability if an item is deleted**

The study further assessed whether the reliability could be improved by deleting an item in the scale by determining the reliability if item is deleted. According to the Table below, the reliability would not improve if an item is deleted.

### **Reliability if Item Deleted - Growth Opportunities**

	<b>Corrected Item-Total Correlation</b>	<b>Cronbach' s Alpha if Item Deleted</b>
Creative accounting is practiced in our corporation for various reasons	.902	.789
It is easy to predict the following years profits	.878	.785
Market for the firms products has been steady for the last ten years	.854	.767
Indicate the nature of audit report given by the company auditor	.847	.774
Annual Reported Net Income starting with the latest year, cash from operations & hence discretionary accruals	.846	.755
Managers compensation depends on the firms profitability i.e. there are bonus schemes based on profits	.899	.795
Managers compensation may lead to creative accounting	.840	.771
Managers compensation for the last ten years have been fairly stable for your company	.853	.789
What kind of benefits that accrue to top level management of the company (The number of benefit schemes available)	.831	.721
Contractual obligations such as credit depends on the firms profitability	.855	.767
Contractual obligations may lead to creative accounting	.840	.771
Contractual obligations for the last ten years have been fairly stable for your company	.854	.767
Dividends, interest and debt capital has not significantly deviated over the last 10 years	.843	.772

Tax evasion and avoidance is based on the firms profitability	.822	.715	
Tax management may lead to creative accounting	.817	.699	
Taxes payable for the last ten years have been fairly stable for your company	.812	.688	
There are no much deviation in Current tax and differed tax over the last 10 years in relation to annual reported income	.814	.692	
Share price performance depends on the firms profitability	.841	.752	
Share price performance may lead to creative accounting	.830	.720	
Share prices for the last ten years have been fairly stable for your company	.827	.718	
Insider dealings depend on the firms profitability	.833	.726	
Insider dealings may lead to creative accounting	.833	.726	
Share transactions by company members for the last ten years have been fairly stable for your company	.842	.778	
Insider trading activities are carried out in the company	.840	.746	

## **10. List of Firms Sampled for Pilot Test**

<b>S/No.</b>	<b>Firm</b>
1	The Co-operative Bank of Kenya Ltd
2	Equity Bank Ltd
3	Mumias Sugar Co. Ltd
4	Kenya Commercial Bank Ltd
5	British-American Investments Company
6	Kenya Power & Lighting Co Ltd
7	National Bank of Kenya Ltd
8	Diamond Trust Bank Kenya Ltd
9	Uchumi Supermarket Ltd
10	Total Kenya Ltd

## APPENDIX 5: DETAILED DISCRETIONARY ACCRUALS PER FIRM

Firm Rank	NOA	NOA/ATA	1/ATA	Sal-Rec/ATA	GPPE/ATA	NDA	ODA
1	-792753	-0.11820	0.000000149	0.15625	0.04363	0.05210	-0.17031
2	-28115649	-0.21032	0.000000007	0.15532	0.730932	-0.04845	-0.16187
3	-1415483	-0.06690	0.000000047	0.00646	0.00542	0.03593	-0.10283
4	-480171	-0.03615	0.00000008	0.13740	0.03894	0.05148	-0.08762
5	-3508026	-0.14888	0.0000000	0.09902	0.79867	-0.06863	-0.08025
6	-1708870	-0.08780	0.00000005	-0.03087	0.37832	-0.02650	-0.06129
7	-858893	-0.01185	0.000000014	0.03574	0.01834	0.03951	-0.05137
8	-159394	-0.04800	0.00000030	-0.08587	0.108881	-0.00062	-0.04738
9	362944	0.01128	0.000000031	0.06699	0.00288	0.04652	-0.03524
10	5005	0.00062	0.0000001	0.26680	0.30435	0.03129	-0.03066
11	-484,103	-0.05656	0.00000012	-0.14070	0.255005	-0.02726	-0.02930
12	-332,557	-0.09037	0.00000027	0.09478	0.727268	-0.06391	-0.02646
13	-2,056,311	-0.00727	0.00000004	-0.13149	0.032735	0.01042	-0.01770
14	654,009	0.00286	0.00000004	-0.06852	0.046497	0.01855	-0.01570
15	-24978	-0.49753	0.0000199	0.05241	0.41246	-0.48283	-0.01470
16	-263534	-0.06425	0.00000024	0.00445	0.55268	-0.05158	-0.01267
17	25956	0.03472	0.00000134	0.46237	0.22084	0.04727	-0.01255
18	-2322000	-0.05665	0.00000002	0.03364	0.591910	-0.04763	-0.00902
19	-323000	-0.01234	0.0000000	-0.13647	0.11480	-0.00358	-0.00876
20	-129241	-0.02200	0.00000017	0.07639	0.422835	-0.01858	-0.00342
21	-31355	-0.03371	0.0000011	-0.23834	0.03500	-0.03234	-0.00138
22	-69,629	-0.03511	0.00000050	-0.12741	0.262194	-0.03525	0.00014
23	-67492	-0.01596	0.00000024	0.08831	0.43650	-0.02026	0.00429
24	-6120000	-0.04117	0.00000001	0.02594	0.59458	-0.04887	0.00770
25	-12491105	-0.07051	0.00000006	0.00078	0.791325	-0.08262	0.01211
26	15,628,225	0.04843	0.00000003	-0.04387	0.016621	0.02709	0.02134
27	6,684,853	0.04735	0.00000007	-0.12566	0.027213	0.01212	0.03523
28	19,680,529	0.05221	0.00000003	-0.12112	0.014059	0.01495	0.03726
29	278746	0.07398	0.00000027	0.01850	0.01473	0.03137	0.04260
30	23846	0.03388	0.00000142	-0.05536	0.065591	-0.01532	0.04920
31	14,929,000	0.06268	0.00000004	-0.12513	0.029144	0.01198	0.05069
32	-9280696	-0.03709	0.00000004	0.00922	0.836256	-0.08799	0.05089
33	665318	0.01076	0.0000000	0.05706	0.60226	-0.04519	0.05595
34	-206014	-0.01295	0.00000006	-0.02714	0.70303	-0.07517	0.06222
35	3,137,352	0.02553	0.00000008	-0.47899	0.037035	-0.04677	0.07230

36	192,762	0.06018	0.00000031	-0.01449	0.264569	-0.01278	0.07296
37	290394	0.09859	0.00000034	0.13968	0.250050	0.01381	0.08478
38	2812571	0.09503	0.00000003	0.00562	0.36643	-0.01837	0.11340
39	9359444	0.28761	0.000000031	0.61133	0.264880	0.09539	0.19222
<b>Average</b>	<b>89,479</b>	<b>-0.02143</b>	<b>0.00000070</b>	<b>0.01674</b>	<b>0.292791</b>	<b>-0.02104</b>	<b>-0.00039</b>

## SUMMARY

SECTOR	NOA/ATA	Sal- Rec/ATA	GPPE/ATA	NDA	ODA	RANK
Agricultural	-0.03047	-0.04696	0.37726	-0.03480	0.00433	9
Auto Mobile	-0.00706	-0.07062	0.08724	-0.00797	0.00091	10
Banking	0.03311	-0.15640	0.02904	0.00691	0.02620	5
Commercial	-0.02263	0.11522	0.42443	-0.01619	-0.00644	8
Construction	0.00665	0.08324	0.42160	-0.01747	0.02411	6
Energy	0.06000	0.20711	0.63082	-0.02507	0.08507	3
Insurance	-0.04642	0.06636	0.01757	0.04351	-0.08993	2
Investment	0.02707	-0.00225	0.25316	-0.00450	0.03157	4
Manufacturing	-0.11351	0.01675	0.37792	-0.10021	-0.01330	7
Telecommunication	-0.21032	0.15532	0.73093	-0.04845	-0.16187	1
Overall	-0.02143	0.01674	0.29279	-0.02104	-0.00039	

