EFFECT OF TAX INCENTIVES ON FINANCIAL PERFORMANCE OF CONSTRUCTION AND ALLIED FIRMS LISTED ON NAIROBI SECURITIES EXCHANGE

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DECLARATION

This research is my original work and has not been presented for academic purposes in any other university or institution of higher learning for award of degree (academic award purposes)

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DEDICATION

I dedicate this research proposal to my wife, parents and friends for their encouragement and for being patient to see me go through my academic struggle thus realizing my long dream.

ACKNOWLEDGEMENT

I wish to acknowledge the almighty God for this far he has brought me and enable me to accomplish this task and also acknowledge my supervisor Dr. Bruce Ogaga for his guidance in this proposal work.

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LIST OF ABBREVIATIONS AND ACRONYMS

CIT	Corporate Income Tax
CMA	Capital Markets Authority
CBK	Central Bank of Kenya
EPC	Export Promotion council
EPZ	Exports Processing Zone
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IBD	Industrial Building Deductions
ID	Investment Deductions
IEA	Institute of Economic Affairs
KRA	Kenya Revenue Authority
ROA	Return on Assets
ROE	Return on Equity
TREO	Tax Remission for Export Office
W & T	Wear and Tear

ABSTRACT

In the recent past, construction sector was ranked among the best performers in the country, buoyed by the increasing demand in housing for the expanding middle class. However, increasing economic pressures and the overall instability of both micro and macroeconomic environment, has resulted in a mixed trend within the Kenyan construction industry. Increasing prices of industrial inputs used in the allied industrial construction sub-sector has had far-reaching consequences across the whole construction sector. Different interventions have been implemented to stabilize the sector, some of which include diverse forms of incentives. This study investigated the interventions in the tax measures, looking into the aspect of tax incentives on the financial performance of the listed construction firms in Kenya. Three taxation incentives, notably; investment promotion incentives, export promotion incentives and wear and tear. The study employed descriptive statistics design utilizing quantitative data centering on the allied construction companies listed at the Nairobi Securities Exchange. Audited Financial data for the listed companies, extending for a period of 5 years (2014 – 2018) was used in this study. Data related to the different set of tax incentives, was obtained from the publications by the Kenya Revenue Authority (KRA), Kenya National Bureau of Statistics (KNBS) and the Central Bank of Kenya (CBK). The independent variable metrics for measurement in this study, including investment promotion, export promotion and wear and tear were compared against profitability ratio, return on assets (ROA) cumulatively for all the listed construction firms. Multiple regression analysis and correlation tests were performed to test for inference and association. The study established strong positive correlation between investment promotion, export promotion and wear and tear versus ROA. The study concludes that export promotion incentives and investment promotion incentives accrue partial benefits to firms in the construction sector, contributing towards partial financial performance. Also, the study establishes that wear and tear accrue a negative financial performance of construction firms listed in Kenya. The study recommends for extension of periodic timelines for the tax incentives in export promotion and investment promotion to boost production and subsequent financial stability of listed construction firms. The study recommends for the revision in the applicable formula used in the calculation of wear and tear for the firms operation in the construction sector.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The practice of offering tax incentives to attract investors to start businesses in remote areas began during the industrial era around the world and has been on the rise since then. Governments offered bounties incentives to entice them to set up shops in their territories. In 1791, the State of New Jersey in the United States of America awarded tax incentives to a prominent businessman by the name Alexander Hamilton to set up a factory there. By the early 1800s, various states in the US advanced loans as capital to private firms to start industries and financed infrastructural development to facilitate industry growth. By 1844, the state of Pennsylvania alone had more than 100 million US Dollars' worth of investment in over 150 state corporations (Buss, 2001).

Rivalry between two other states of Pittsburgh and Philadelphia for instance, culminated in significant investment in railway lines, bridges, roads and banks. Corruption became a norm, but the American legislature passed laws outlawing the menace. In 1936, the state of Mississippi was the first one in US history to introduce tax-exempt bonds to attract business enterprises. In 1949, Maine State established the first business development corporation. By 1959, twenty-one other states had established similar corporations (Engen & Skinner, 1996).

To guarantee industrial loans to industrialists, the state of New Hampshire established its first finance authority in 1955. By December 1963, nineteen more states had such authorities. Between 1956 and 1963, seventeen states sanctioned tax concessions within their areas of jurisdiction. The unemployment catastrophes of the 1970s and the economic recessions of the 1980s compelled

many states in the USA to develop and introduce more tax incentives to entice investment within their territories (Buss, 2001).

Research on the effect of tax incentives on firms' financial performance has been an area of concern for many researchers in the recent past (Teraoui, Kaddour, Chichti & Rejeb, 2011). Authors contend that tax incentives attract investments aimed at improving financial soundness of already existing firms. Faced with the challenge of global competitiveness, countries from different parts of the world have adopted proactive export promotion policies to adapt to the ever-changing business environment.

Over the past two decades, Ireland has moved from being a poor country to the most dynamic economy in Europe. Progress was due to improved education system, promoting the country as an investment destination and enticing tax incentives. In the early 1960s backwards, the Irish economy faced stagnation due to lack of tax incentives to spur economic growth. In 1959, the Irish government created Shannon Free Zone to promote export trade. Initially, profits from exports attracted no tax (Ricupero, 2000).

In 1981, the government established a 10% tax rate for Export Promotion Zones operations, manufacturing and financial services. Since late 80s, Ireland has recorded fastest growth rate in Europe. By early 2000, close to 60 percent of total output was due to foreign firms operating in the country and also manufacturing sector grew to 45% compared to near zero percent recorded in the late 1950s (Ricupero, 2000).

As a progressive economy in Asia, Malaysia is a good example of a country that progressively managed to move up the ladder from a poor country in the 1960s, to resource-dependent economy in the 1970s and by 2010, regarded as a newly industrialized country. In 1958, the country started offering 5-year tax holidays aimed at promoting growth of import-substitution industries. By early

1970, Export Processing Zones (EPZs) were established to sustain growth already achieved by import substitution (Sinenko & Mayburov, 2017).

The main factors which drove adoption of tax incentives in Kenya were mainly informed by the need to attract Foreign Direct Investments (FDI) and also create employment opportunities. EPZA was established in the year 1990 to promote and facilitate export oriented investments and develop an enabling environment for such investments. EPZ incentives include 10 years tax holiday and 25% CIT on profits thereafter. EPC was established in the year 1992 to address bottlenecks that were facing exporters of goods and services with a view of improving the performance of the export sector. Created manufacture under bond to promote exports.

TREO was gazette in Legal Notice No. 129 of 19th July 2002 to provide 100% duty remissions for raw materials imported and used to manufacture goods for export. Also provide remission to manufacturers who produce goods and services for export. Ken invest Authority was established in 2004 to promote investment in Kenya. They provide investor-tracking and after care services.

IEA (2012) argues that tax promotion strategies are a set of plans that encourages individuals to take advantage of deviation from the normal taxation practices so as to achieve a certain benefit.

The broadness in tax incentives encompass specifies set of exclusion which serve as special credits in form of deferred liability to taxation (Fletcher, 2003). Okauru (2009) on the other hand, posited that tax incentive were strategic reliefs extended to companies in effort to encourage savings and also push for capital inflows.

Tax incentives are defined by the UNCTAD (2000) as any measurable advantages accorded to specific enterprises or categories of business by (or at the direction of) a Government, in order to

encourage them to behave in a certain manner. According to the Institute of Economic Affairs (2012) tax motivational strategies are always progressing and commonly practiced by firms.

Clark, Cebreiro, and Bohmer (2007) explain that providing tax incentives is cheaper than rectifying tax deficiencies existing in the system. The reason for providing tax motivations is to capitalize on opportunities, where the prevailing tax regime is viewed as providing a hurdle. Tax incentives are also used to improve the community's social good. For instance, giving tax incentives on matters pertaining to health, education or savings put aside for use in the future. Additionally, the government's objective for providing tax incentives is to spur stock market performance.

Tax incentives can assume diverse forms. For instance, in Kenya the prevailing tax incentives include providing tax reliefs for some few years after an organization begins its operations. Easson and Zolit (2013) observed that tax incentives provides room for recovering expenses, tax relief, wear and tear schemes, special production zones, discounted investment plans, tax immunities, discounted taxation rates, and incidental tax incentives.

Tax incentives spurs investments in firms leading to profitability. Additionally, tax incentives lead to increased employment besides spurring sole proprietorship to incorporate into limited companies resulting in improved financial performance of business entities due to limited tax related expenses. Furthermore, organizations can perform better as they can easily access external funding as compared to sole proprietorships operating in the country (Philips, 2010). Additionally, tax incentives reduces operating costs of firms especially where government offers subsidies and incentives like lower interest rates, grants, lower labor costs, improved road infrastructure to lower costs associated with movement of goods and services.

1.1.1 Tax Incentives

Klemn and Parys (2009) looked into the techniques employed in pushing for tax motivation, through a two dimensional view. This approach sought to determine whether different incentives in tax credits contributed towards attracting investments. In their assessment, the scholars generated new data set of tax incentives in over 40 countries in the period of 1985 to 2004. The scholars used spatial econometrics methods to provide answers on the various tax incentives by countries. The investigators noted that providing tax holidays competed with corporate income taxes rates. However, the researchers did not establish any competition between investment allowances and tax discounts. The researchers used dynamic panel data to provide answers for the second study question, which indicated that reducing corporate income taxes and granting longer tax holidays attracts more FDI but reduces economic growth in the country.

Harju and Kasonen, (2012) studied the impact of tax inducements on the economic activity of people involved in business due to tax reforms in Finland in 1997 and 1998 using empirical data as well as the appropriate theoretical frameworks. The researchers determined that tax motivation measures decreased the income tax rates of smallholder businesses and omitted large business enterprise from the tax relief plans. The scholars used difference-in-difference technique to appraise the casual interaction of tax reliefs and the economic activities of small-scale business people. The outcome endorses the concept that unexacting taxation leads to an increase business entities turnover, which can be linked to more effort put by small-scale business owners on their businesses.

The research study by Xing, Cui, and Qu, (2017) on local tax incentives and behaviour of foreign businesses revealed that irrespective of tough capital controls foreign owned businesses saw a boost in pretax profits and increase in investments due to tax incentives. The scholars analyzed the

manner in which profit reporting and investment behaviour adopted by foreign business entities respond to local tax reliefs in China. The scholars used firm-level data generated between 2000 and 2013 by China's industrial enterprise survey. The data provided provide strong evidence for tax competition among Chinese cities-mores cities located in the same province- over the mean tax rates. The scholars established that tough capital controls are positively correlated to increased pretax profits and investments by foreign firms emanating from tax reliefs. This finding point to the idea that sub national tax competition in China leans towards profits and real resources.

Tembur (2016) claimed that tax incentives can be diverse and ranges from tax reliefs, tax allowances on investment; special zones tax allowances, wear and tear tax relief, lower tax rates, and tax exemptions. Steven and Ana (2007) submitted that tax incentives were unique incentives offered to business organizations, through offering them tax reliefs in order to encourage more investments within a particular industry. According to Sally & Shelly (2010), tax reliefs of any forms are selective in nature and can lead to preferential taxation.

The Kenya Revenue Authority (KRA) hold the position that tax incentive is a provision that gives any person or aactivity better conditions away from normal practices of the prevailing tax regime. Such favorable inclusions can affect the person positively due to the favorable tax conditions granted to the business or individual. Additionally, KRA defines tax incentive as any provision meant to provide positive treatment of activities or persons compared to what the businesses in a given industry enjoy. Tax incentives may adopt various forms. In the Kenyan situation, tax incentives may include tax relief periods, investment allowances, tax credits, tax exemptions, special zone taxes, and wear and tear.

1.1.2 Financial performance

A firm can be measured on how it performs financially by assessing how well it utilizes its assets to generate sales or revenues from its vital businesses. This entails measuring in monetary terms the outcomes of a firm's policies and operations. According to Combs, Crook, &Shook, (2005), dimensions of financial performance are: profitability, growth, and market worth Profitability measures firms past ability to generate returns (Glick. 2005).

Growth is a pointer towards an organization's capacity to build its size and ability to generate income. Additionally, a company's s size determines its ability to enjoy the economies of scale, have significant control in the market, and increase its prospects for future earnings. The company's market value shows how the firm is viewed within the scope of the industry and how its aiming to enhance its business performance. Further it ties into the firms to its past profitability and what it forecasts the future revenues to be like as well its competitive edge (Santos and Brito, 2012).

According to Naz, Ijaz, and Naqvi (2016) study on financial performance of Pakistan's cement sector shows business results that reflects the fiscal health of the sector over a period. The findings also indicate how a business entity is using its resources to maximize the wealth of its key stakeholders and the firms' profitability. Given that a firm's evaluation takes into consideration several other measures. The commonly used performance measurement used in finance field is financial ratios. The research study covered Iran, India and Pakistan and presents findings from other international scenarios. The commonly used financial ratios used for measurement of financial performance of the cement industry are profitability ratios, asset utilization ratios, leverage ratios, liquidity ratios and cash conversion cycle for the period 2006-2014. These five key ratios are viewed to be critical in determining the actual firm's performance (Selvam et al.,

2004). Securing external capital for cement industry is also driven by the metrics of the financial ratios, including the ROI and ROA (Chandrasekaran, 1989; Dhanalakshmi, 1994).

A study conducted by Rumina, Balandina & Bannova (2014) analyzed the effectiveness of tax reliefs to come up with a modern tax approach and innovation in Russia. The scholars put into perspective the recent state of tax incentives in the Russian Federation (RF) with objective of elevating interests in innovation tax. The researchers observed that during the past five years noticeable changes had been incorporated into the Russian's federation's tax code. Noted to spur innovation but only showed minimal outcomes. The Russian federation's tax incentive regime appeared neither self-sufficient nor effective in directing the innovation process is still not self-sufficient and effective. The scholars further evaluated the merits and demerits of the existing tax benefits by querying the views held by the government and business entities. This was necessitated by the need to assess the effectiveness of tax motivators and to develop a sound tax assessment model an also evaluate the gains registered in company revenues as an outcome in tax cuts.

Samiloglu, Oztop and Kahraman (2016), undertook an assessment into the key determinants used in measuring firm performance. The study used financial records of 51 listed companies at the Istanbul Stock Exchange and the financial records were derived from a period of 10 years (2005 – 2015). In their assessment, accounting based financial ratios, notably, returns-on-assets and returns-on-investments were most preferable by the creditors and investors. In assessment of Financial Performance, records notably ROI and ROA offered a better view on correlation on the investments and overall business performance.

Chukwumerije and Akinyomi, (2011) looked into the subject of tax incentives and the effect among players in the small and medium enterprises (SME's). The inquisition whose context was Rivers State, in Nigeria focused largely on the element of tax incentives and financial performance.

The study sampled 11 of the 22 registered businesses. The scholars used Questionnaires to collect data from a population of 260 study participants working in various firms. Employing Chi-square and frequency distribution, the scholars established that diverse tax enticement strategies were at the disposal of smallholder enterprises, which the industry players were well aware of. The scholars recognized the fact that tax incentives positively affect profitability, staff productivity, growth, and development of smallholder industries. The scholars recommended that governments should repeatedly review the tax incentives to align it with the current economic conditions.

1.1.3 Tax Incentives and Financial Performance of firms

Amendola, Boccia, Mele and Sensini, (2018) examined the element of diverse set of fiscal incentives towards the performance of a business organization, in the wake of increased corporate tax breaks with Dominican Republic. Borrowing from existing literature, various assessments have been ongoing around the world in regard to the influence of corporate taxes as incentive in driving business performance. Amendola et al. (ibid), employed firm-level panel data, paying special attention to corporate taxes and the firm level performance indicators using the fixed ad random effects. On firm-specific test, the study revealed a consistency in enhanced performance attributed to the gains in corporate tax. However, evidence across the industrial sector revealed inconsistencies with overall negative effect on the economic performance.

Sebastian (2010) performed an examination into the relevance of social media marketing in attracting investments. The study utilized panel data evidence from the CFA Franc Zone-Sub-Saharan Africa. They analyzed the policy changes in tax incentives and in the broad set of investment factors for 12 CFA Franc Zone countries over the period 1994–2006. Because of their common currency (the CFA Franc) and common language (French) these countries constitute an exceptional basis of comparison to evaluate their ‘policy experiments’. The use of

panel data econometrics with fixed country and year effects allows us to isolate the impact of the policy changes on investment, as if it were a difference in differences analysis with multiple policy changes. They found out that no robust positive relationship between tax holidays and investment in the CFA Franc zone. However, increasing the number of legal guarantees for foreign investors as well as decreasing the intricateness of tax system to help increase investment.

Mayende, (2013) employed panel data estimation for sales income to measure the impact of tax benefits on financial performance of manufacturing companies within Uganda. The study found gains in gross sales income in comparison to other firms buoyed by financial incentives. Clarity in provision of fiscal incentives such as tax breaks wielded gains for firms within the industrial sector. In policy level, streamlining incentives was vital in boosting firm performance across certain economic segments and deserves to be handled more efficiently through providing skills to managers tasked with determining firm incentives.

Governments all over the world use tax incentives to enhance economic activities and investments by firms, they use these form of incentives, to attract and spur economic throughout the scope of economic fron.tier in all sectors (Kaplan, 2001). Income tax act (2015) corporations across the country have gained from major tax incentives especially capital allowances such as IBD, ID and W&T allowances by claiming deductions from their corporate tax liability, this enables such companies to report higher profit after tax leading to higher financial performance.

According to Ohaka and Agundu, (2012) business entities within the tax bracket and qualify for tax incentives submit lower amounts of tax to the government and as a result have a higher ROA and ROE. Organizations qualifying for tax incentives also attract more investments leading to increased profitability. Additionally, tax incentives lead to increased employment and encourage

sole proprietorships to be registered as limited companies that improve their financial standing as they are better placed to attract funding from investors and shareholders (Philips, 2011).

In the end, tax incentives decreases the operating costs of a business entity due to availability of cheaper grants, labor, loans, and transport services. The net profit posted by the firm increases due to less costs endured by the enterprise in the financial year.

1.1.4 Construction and Allied Sector in Kenya

he construction sector accounts for 5 per cent of Kenya‘s GDP and employs at least one million people. Secondly, the rapid growth in population, has tremendously led to a soaring demand for housing in most parts of the country, which also presents a major opportunity for growth as private developers rush to keep up with this demand. Despite the recent slowdown in the world economy, the Kenyan construction sector has remained buoyant as reflected in the increased investment in both commercial and residential buildings over the past few years (Muhoro, 2013; Waithaka, 2011).

KNBS, (2017), Economic survey shows that the construction industry grew by 9.2 per cent in 2016 from an expansion of 13.9 per cent registered in 2015. Increased activity in the construction of roads and development of housing also translated to an increase in employment in the sector from 148.6 thousand jobs in 2015 to 163.0 thousand jobs in 2016. This was mainly due to construction of roads across major towns such as Nairobi and Kisumu gives impetus to the Government’s commitment to developing infrastructure to promote business.

1.2 Statement of the Problem

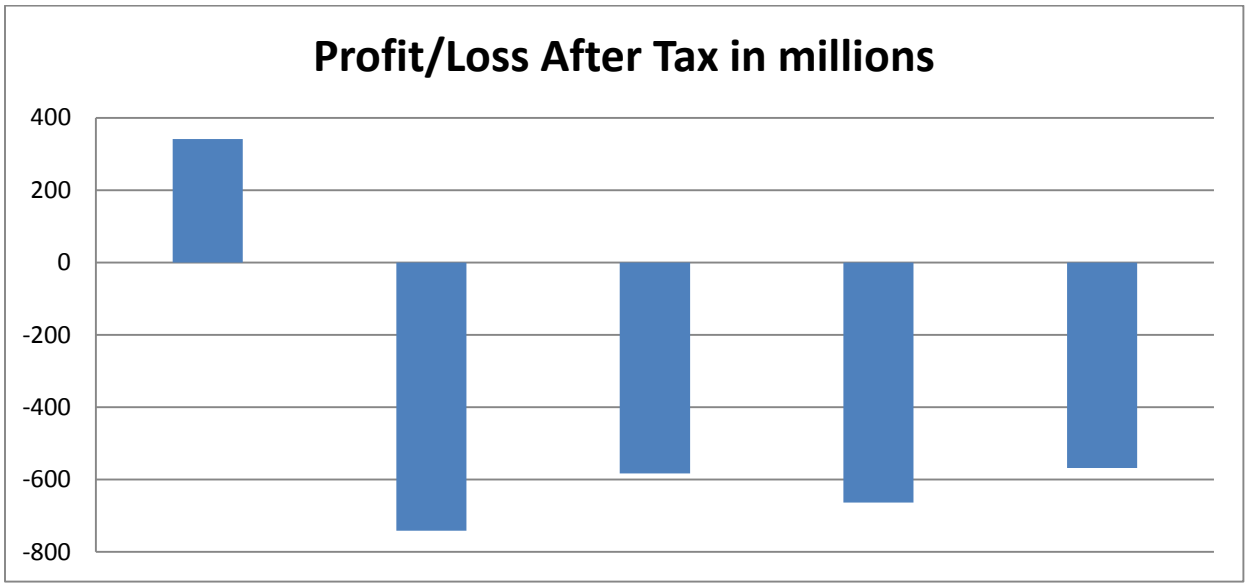
Van, Parys and James (2010) indicated that Ireland, despite the inclusion of tax enticement measures, the package failed to get the attention of the targeted investors and realized the need

include other tax restructuring schemes for the program to work. Kenyan based studies on the impact of taxation on firms' profitability have largely been general in approach. Such generalizations may not be representative enough of the various sectors of the Kenyan economy because each sector is distinct in several aspects in its own rights. Besides, findings from those studies regarding the topic under study are conflicting and mixed (Gumo, 2013; Tembur, 2016 and; Tirimba, Muturi & Sifunjo, 2016).

The construction sector in Kenya plays a fundamental role in developing the national economy, alleviating poverty and partnering with other larger corporations. However, data from audited annual reports show that construction and allied firms are performing poorly. They have either registered losses, declining profits or stagnating for the last five years. ARM Cement Plc reported a loss of Kshs. 2,822,175,000.00 and Kshs, 2,890,841,000.00 in the year 2016 and 2015 respectively. East African Cables reported a loss of Kshs. 662,835,000.00, Kshs. 582,602,000.00 and Kshs. 741,204,000.00 in the year 2017, 2016 and 2015 respectively. There was a decline of profit in the year 2014 from Kshs. 398,202,000 in the year 2015 to Kshs, 341,149,000. East Africa Portland Cement Co. Ltd reported a loss of Kshs. 1,471,361,000.00 and Kshs. 386,631,000.00 in the year 2017 and 2014 respectively. There was a decline of profits in the year 2016 from Kshs. 7,157,070,000.00 in the year 2015 to Kshs. 4,145,755,000.00. Bamburi Cement Ltd reported a decline of profits in the year 2017 from Kshs. 5,890,000.00 in the year 2016 to Kshs. 1,973,000.00.

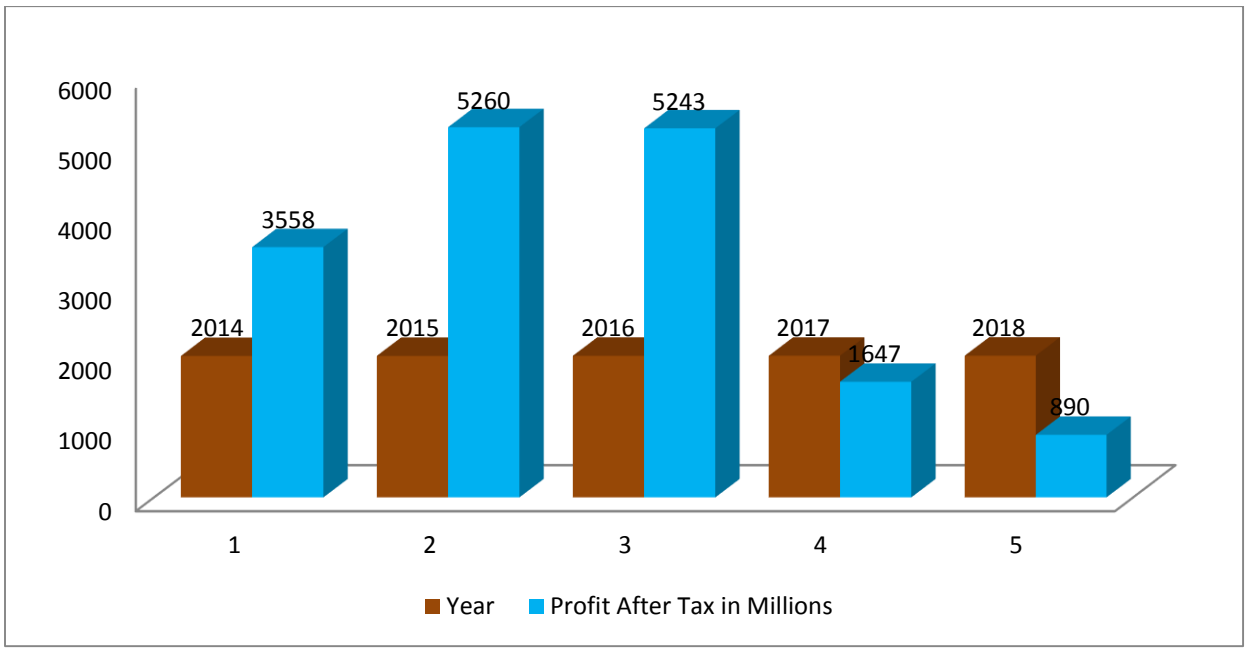
The following graphs shows 5 year profit or loss trend for East African Cables Ltd and Bamburi Cement Ltd

Figure 1.1 East African Cables Profit/Loss after Tax Graph



Source, Audited Reports (2018)

Figure 1.2 Bamburi Cement Ltd Profit/Loss after Tax Graph



Source, Audited Reports (2018)

Boadway and Shah (1995) observed that tax incentives are meant to lower costs incurred by firms operating in a certain sector to spur investments in the industry. The scholars also noted that tax incentives are tailored to elicit socially responsible behavior from organizations operating in certain sector of the economy. Tax incentives put a firm in a position to generate higher revenues hence improve its financial standing in the end. According to IBRD (1998), firms eligible for tax incentives are in a better position to save and invest their finances for higher profitability and growth.

The background information evaluated in this section demonstrate an existing gap in the studies and insufficient knowledge base in the area of the study. As a result, there exists a need to carry out further research to evaluate the impact of tax incentives on financial performance of construction companies quoted at the NSE.

1.3 Objectives of the Study

This main objective of this study was to examine the effect of tax incentives on the financial performance of listed construction companies in Kenya.

1.3.1 Specific Objectives of the Study

The study was guided by the following objectives;

i) To determine the effect of investment promotion incentives on the financial performance of the listed construction firms in Kenya.

ii) To assess the effect of effect of export promotion incentives on the financial performance of the listed construction companies in Kenya.

iii) To measure effect of wear and tear on financial performance of listed construction companies in Kenya.

1.4 Research Questions

The study sought to answer the following questions;

i) What is the effect of investment promotion on the financial performance of the listed construction companies in Kenya?

ii) What is the effect of export promotion incentives on the financial performance listed construction firms in Kenya?

iii) What is the effect of wear and tear on financial performance of listed construction companies in Kenya?

1.5 Significance of the Study

The study identifies the effect of tax incentives on financial performance of quoted manufacturing firms in Kenya hence acknowledging the roles of different stakeholders in the matter. KRA officials, Kenyan government, policy makers, legislature and regulatory bodies may use the study in improving taxation systems and therefore, tax policies in Kenya.

1.5.1 Researchers and scholars

To academicians, the study adds to the existing literature in the field of tax and shall form a basis of future research and reference. Scholars and researchers find this study useful if they wish to use the findings as a basis for current and further research on optimal tax incentive mix, focusing on developing countries. This research paper will be available in libraries for easy access by scholars and researchers.

1.5.2 Policy Makers

The study can make an important contribution to policy makers and body of knowledge by providing in-depth understanding of complexities prevailing in tax incentives and financial performance. The study assists in policy formulation.

1.5.3 Management Practice

The research findings can be used by the top management to make the right decisions on the tax incentives to be able to maximize the firm‘s returns. This research will assist managers in making informed decisions on the financial performance so as to get the maximum benefit from the strategies they choose.

1.6 Scope of the Study

The study focused on construction and allied firms listed on NSE. The paper covers a period of 5 years, starting from 2014 to 2018. The variables are measured at a national level. The period covered is extensive and therefore more likely to give accurate results.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines and presents an increasing body of knowledge pertaining to effects of tax incentives on financial performance. The chapter therefore provides theoretical and empirical information from publications on topics related to the research problem.

2.2 Theoretical Review

This section discusses and articulates the relevant theories and concepts on how tax incentives affect financial performance of firms. The theories help build a case to justify the study. These theories include Normative Theory, Neo-classical Theory and Optimal tax theory.

2.2.1 Normative theory

The model demonstrates the manner in which several levels of government structure generates a set of incentives and sets the boundaries within which the government and other players must operate (Cochran, 1999). The incentives set the pace of development as well as chart the path to development. The theory holds the premise that successive governments institute different taxation measures, which may water down the gains made in the past. Consequently, creation of tax structures, policies, and administration plans should be dynamic in time based on the fact that tax factors are comparative to each other. The institutional model provides a general framework that can be employed in a bid to gain deeper comprehension of the development of tax strategies and management across different areas. The institutional theory gives an appealing idea for depiction and prediction.

Tresch (2014) holds the position thatt this theory contains incentives that are beneficial as well as disadvantageous one that portend a problem when determining the incentives that are good for a particular economy given the dynamic circumstances and challenges in the environment. As a result, prevailing economic situation, competence of tax administrators, type of investments, and the budget constraints are some of the factors that should be closely monitored during tax planning.

Boadway (2015) observed that benefits awarded by civil servants or politicians are commonly abused due to corruption. The scholar argued that incentives should be accessible to all investors meeting the laid down regulations and follow an open criteria. On the other hand, organizations should receive just enough incentives to spur investments. As a result, every potential investment are eligible to receive incentives related to particular industry. It however appears that the government incentives are given according to the ethical strength of governing institutions overseeing the sector under which the firms operate. The power welded by the public office and the political class on incentive allocation makes the process unclear and affects the outcomes.

According to Chukwumerije and Akinyomi (2011) moderate tax incentives targeted at the machinery, equipment, research, and development can have significant effects on the spurring investments and leading to insignificant loss of finances.

The normative theory is relevant in this study as it underpins anchored the idea that the existing tax incentives can only be ruled as sound and fit for the prevailing economic situation. Corporate tax incentives with huge regional discrepancies can hurt a country's' operations and puts it at a disadvantage compared to other trading partners in the region.

2.2.2 Neo-classical Theory

Neo-classical theory holds the claim that unequal provisions of tax incentives violate the principles of a sound tax system. The unequal tax provisions leads to mixed price signals, which further introduces confusion in the market. It also leads to poor allocation of resources (Boadway & Shah, 1995). The reasons given for the special tax incentives are that other sectors in the economy have no investors hence the need to attract investors through tax incentives to rectify the situation. Unequal investments in specific sectors of the economy can lead to market failure, as it results in disproportionate market performance with other sectors performing better than the other in terms of gains versus failure rate.

In perspective, research and development can yield higher returns in the public domain rather than private domain due to disparities in technical knowledge across the two sectors that may lead to subsidizing technology in the private sector to bring equality in the market (Kaplan &Norton, 2001). Barbour (2005) submitted that, tax incentives ought to be implemented in effort to balance inequalities that exists in particular sectors between investments and financial performance. The provisions for investment are in the form of tax reliefs as well as grants.

Report from international arena indicates that incentives play an insignificant role in investment decisions. In practice, business organization settle on decisions driven by many issues, which may include future forecasts of demand and supply, anticipated changes in government policy, current interest rates, as well as moves expected to be made by the competitors. Investors generally view incentives as good to have but do not use them to make key business decisions. Despite the view, incentives remain popular regulations for most countries in the world.

The model formed the basis for developing the study objectives as well as determining the impact of tax incentive strategies. Furthermore, the model formed the basis for assessing the impact of tax

inducements in construction firms and its influence on the profitability of the listed construction firms.

2.2.3. Optimal Tax Theory

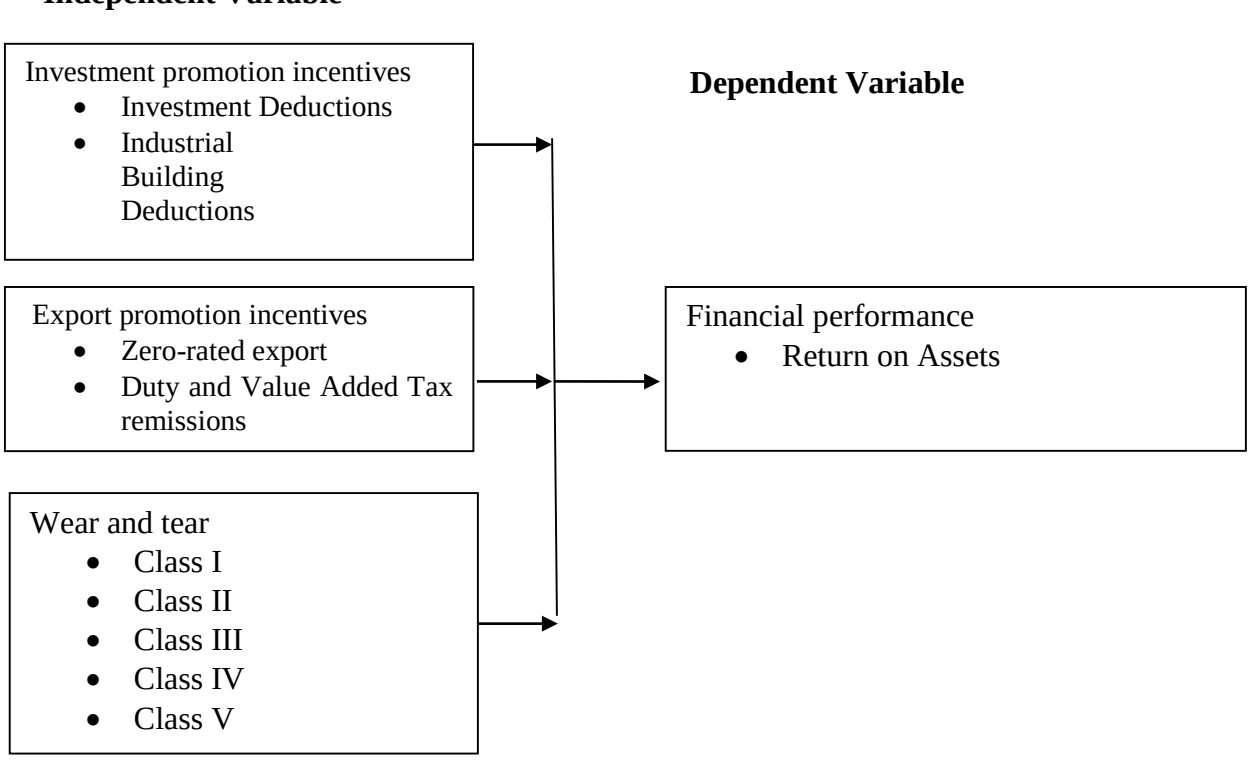
Optimal tax theory provides important lessons on how to best develop tax regulations to present negligible disturbance to the market due to poor taxation policies (Mirrlees, 1976). There exists a neutral tax, which is a theoretical tax that prevents distortion and inefficiencies. The theory holds that assuming that other factors remain constant; taxpayers are faced with choices of two mutually exclusive investment projects with equal pretax risks and profitability. A reasonable industry player would choose a project that portends minimal tax risk to the business.

With such rationalization, economists noted that taxes tend to affect business behavior. The theory has been commonly applied over time to shed light on tax compliance policies and practice. Lisi (2015) used the tax model to explain tax compliance in the UK. In addition, Saez and Stantcheva (2016) used the model to shed light on the social marginal welfare weights of taxation in USA while in Africa setting Babatunde, Ibukun and Oyeyemi (2017) used the theory to clarify taxation income as well as the economic growth in the continent.

Optimal tax model gives an overview of the tax stimulus packages and the behavioral changes. For instance, as only economic actors benefit from income tax liability on employee wages, the employees' allowances are not taxed or slightly taxed to spur circulation of finances in the economy.

2.3 Conceptual Framework

Mugenda & Mugenda (2003) defines conceptual framework as a systematic presentation which identifies the variables that when put together explain the issue at hand. It is used to explain the relationship between the dependent and independent variables as shown on Figure 2.1



Framework

Source: Researcher own conceptualization (2019)

2.4 Empirical Review

Numerous studies exist from around the globe centering on the subject of tax incentives aimed to boost operational performance of companies in both profitability and increased capital inflows. Alhulail (2014) performed a study on the influence of tax incentives on sales of eenvironmentally friendly vehicles in Japan. The scholar sampled 10 vehicles in Japan categorized as eco-friendly vehicles for the period of April 2006 to March 2013. The scholar also relied on secondary data,

which were analyzed using regression analysis method. The study established that the tax incentives had significant positive impact on sales of eco-friendly automobiles in Japan. The scholar however failed to indicate thee study population to help other researchers determine the viability of the study.

Maffini, Xing and Devereux (2016) study on the effects of tax motivational measures like depreciation grants on profitability yielded more data when the scholars added data from confidential tax returns in the United Kingdom. The scholars employed difference-in-difference methodology to assess the shift in the minimum limit for the first year emoluments put down in 2004. The study findings indicated that companies that qualified for tax incentives performed better financially than the companies that did not qualify for the tax scheme. Additionally, the study determined that the increase in profitability was independent of available cash but rather occurred after the exogenous modification related to the assets held the company. The researcher further determined that the business entities showed fast response to FYAs within the period of 1-2 years. Also, the study determined that the salient features of FYAs got prominence due to the cost of capital realized due to low limit on qualifying thresholds. The major finding of the study emanated from the need to establish effects of the tax incentives on performance of firms listed in NSE and not the scenario highlighted in previous studies review. The research mainly focused on features affecting depreciation benefits on appealing to FDIs into the listed enterprises. Also, the research focused on the impact of linked taxation model on the effect of FDI and earnings of the firms quoted in the Nairobi bourse. The study outcome pointed to a positive interaction between. Investment discount and building discount with no important correlation to FDIs.

Tirimba, Muturi and Sifunjo (2016) to determine the way tax incentives influenced the stock market profitability conducted a study and used descriptive research approach to fulfil the

objectives of the stud. The technique chosen by the scholars fitted the study objectives. The study population includes listed firms on NSE, with 61 firms being sampled for the study. The study employed questionnaires in the process of data collection. The study outcome indicated that tax incentives had limited effect on the financial performance of firms quoted at the NSE hence the need for the government to develop fresh policies and legislation to govern taxation. The move is expected to boost the economic growth rather than using tax incentives only.

A study by Njeru and Ndimitu (2015) assessed the influence of tax cuts on the profitability of APZ firms in Kenya. The scholars used descriptive research methodology to provide direction to the research as well analyzes the study data. The study outcome indicated that investment in the EPZ firms heavily relied on the increase in investment revenues. Additionally, the findings of the study established that significant relationship existed between tax discounts and investments. The scholars also revealed that EPZ firms had so far benefitted from grants, loans, tax incentives, import tariff exemptions, sales revenues, tax reliefs, and government subsidies.

An examination by Kuria (2017) utilized multiple regression tests, to evaluate the role of tax incentives towards impacting on the performance of firms in the country. Two measures were utilized which included the, tax incentives and workforce distribution within the companies operating within Kenyan EPZ sector. Findings detailed positive correlation between various sets of tax incentives and the performance of forms within the EPZ. However, the distribution in workforce numbers didn't impact on the firm performance.

Ngure (2018) used a cross-sectional approach, encompassing 725 firms across various manufacturing firms, as listed in the Kenya Association of Manufacturer's directory, to examine effect of tax incentives on the performance of manufacturing firms. The researcher concluded that

corporate tax incentives helped the firms sustain profitability over a given period hence had a significant impact on financial performance of the companies.

2.4.1 Investment promotion incentives and financial performance

Parys, (2012) performed an assessment into the influence of tax incentives in attracting investment: evidence from developing countries with particular attention to tax incentives. The study examined three dimensions including; (i) investment climate as a basis of tax incentives on whether, unattractive and attractive climates differ towards attracting investments.(ii) specific variances in tax incentives, and finally, (iii) government to government considerations in aspects consistency in policies relating investments. In a first study, FDI is found to respond marginally to adjustments in corporate tax rates for countries with a relatively unattractive investment climate. The second study shows that lower fiscal incentives and longer tax holidays are effective in attracting FDI in across the Caribbean and Latin America, but not across the African continent. This result is broadly confirmed in a third study that focuses on the effectiveness of tax incentives in two monetary unions: the Eastern Caribbean Currency Union and the African CFA Franc zone. Moreover the third study indicates that reduced complexity of the tax system and more legal guarantees help to attract investment in the CFA Franc zone. Finally, the second study also shows that those tax instruments to which firms are most sensitive - the CIT rate and tax holidays -, are the ones on which governments compete the strongest.

These are tax incentives that influence physical and financial capital. It includes capital deductions such as investment deduction, industrial building deduction, farm works deduction and mining deduction IEA (2012)

Agundu and Ohaka (2013) studied the limit to which capital allowances provided investment motivation to investors in the Nigeria manufacturing industry. The financial ratios included in the

study were PAT, ROA, and ROE. Financial data of 58 manufacturing firms in Nigeria were analysed by the scholar. The study established that capital allowances were a critical component of PAT, ROA, and ROE. The findings of the study ensured that the Nigerian firms in the manufacturing sector had to comply with the new taxation laws, which included auditing. The study by Tirimba, Muturi and Sifunjo, (2015) on stock market investment incentives adds to the body of knowledge the discussion whether investment incentives are gifts or motivators. The scholars also evaluate the factors that affect the reaction of investors in while tracking different stocks as they trade in securities exchange. They employed keywords to search a database of 93 initially earmarked research papers. The search was further refined and 66 research papers were further selected randomly to generate the discussion paper. The study outcome indicated that investor viewpoints affects stock market performance much more than tax incentives. In conclusion, the study holds the premise that timely information relating to marketable securities is vital for proper pricing strategies. Investment incentives are effective in real situations to promote investments while investors' views are relevant in the real world. Consequently, scholars conclude that stock market incentives were gifts rather than motivators for investors to make key investments decisions at the stock market. According to CMA (2006) the NSE and CMA proposed to increase the scope of capital expenditure deductions incurred by firms on legal expenses and other incidental expense. The move was meant to encourage investors at NSE to pay a lower tax for a period of five years in exchange for offering 40% shares to the public (CMA, 2006). Ideally, the industry regulators and policy makers are tasked with establishing the views of business community on tax policies before implementation. On the other hand, tax incentives can lead to windfall profits for the shareholders. According to CMA (2002), the government of Kenya has instituted over 20 monitoring and tax incentive measures to rectify market growth issues. The

regulator also notes that it has been empowered to play a major role in economic growth. To date, the Government of Kenya has implemented no less than 20 fiscal and tax incentive measures to address impediments to market growth.

Despite the changes, KRA (2009) pointed out that an estimated KShs 220.8 Billion was lost from 2003-2009 due to tax incentive measures instituted by the government. The study recommends that more research should be carried out on the subject to obtain the accurate position on the effect of tax discounts on diverse parts of the economy more so the manufacturing and allied sector.

Despite the capital allowance offering by the government, firms should cautiously acquire assets and keenly evaluate the prospects for expansion before attempting the move. The government can use capital benefits to affect physical and financial assets owned by firms in Kenya. For example, the Income Tax Act (2015) gives various tax allowances through capital discounts where the government allows companies to claim upto 150% for expenses incurred for investing outside the three cities and incurs costs of upto 200Million. The amendments to Income Tax Act in the 2015/16 budget reports calls for 100% public offering from 40% more capital discounts for building materials utilized in developing educational and technical services raising from 50% to 100%.

Ngure (2018) found out that the effect of capital allowance benefits on profitability of manufacturing firms was encouraging. Gumo 2013 researched on the impact of tax benefits on the profitability of manufacturing companies in the country. The researcher used descriptive research design and collected primary data using questionnaires. The study extracted published financial data from the KNBS and KRA databases. The findings showed that, Kenya has listed various tax incentives benefits including capital investment allowances offered to home companies such as Industrial Building Allowance (IBA). Other incentives charged on farm works upto 50% anually

for 24 months. Mining firms benefited from mining allowances as long as the firm was involved investing in mining related activities likes explorations (Income tax, 2015)

According to IEA (2012), the main tax incentives available in Kenya are investment promotion and export promotion incentives. As per the document, investment promotion incentives are those tax incentives that influence physical and financial capital. These types of incentives can further be sub-divided into incentives of a financial nature (those affecting financial instruments) and those that stimulate physical investment, which are Investment Tax Credit and Allowances. Under an investment tax credit, companies in a specific industry generally are allowed to make deductions against their tax liabilities, a fraction of expenditures on new additions to physical or capital stock. Second schedule of the income tax act 2012 ad it comprises of; (i) Investment Deduction Allowance (IDA) introduced in 1991 to encourage investment in physical capital such as industrial buildings, machinery and equipment. It is claimable on the capital investment once manufacturing operations commence. It is currently pegged at 100%, but attracts an additional 50% for investment whose value is Kshs.200 million or more, and is outside the municipalities of Nairobi, Mombasa and Kisumu. The 150% rate was introduced to encourage dispersion of investment outside the central business districts of Nairobi, Mombasa and Kisumu. (ii) Industrial Building Allowances (IBA) Introduced in 1974 with the objective of encouraging investment in buildings used for industrial purposes e.g. in the hotel industry. It is granted on straight-line basis on balance of cost of construction at 2.5 % for manufacturing. (ii)Mining Deductions Allowance (MDA) Introduced to encourage investors to venture into the mining industry, which is highly capital intensive, and is calculated at a rate of 40% in the first year and 10% for the remaining 6 years on a straight line basis.

2.4.2 Export promotion incentives and financial performance

Madani and Mas-Guix, (2011) conducted a study on the effects of export tax incentives on export performance on the automotive sector in South Africa. Thes study provided a first attempted a quantitative analysis of the Motor Industry Development Program using the difference-in-difference approach to evaluate the extent to which the program was effective in improving South Africa's motor vehicle export performance for the period 1996–2006. The scholars used a two-level methodology. In the first level, the authors performed a comparative study with different manufacturing industries in the country. In the second approach, the investigators compared South Africa with a number of comparator countries that produce and export motor vehicles. The outcome indicated a positive correlation between the effects of the automotive export in South Africa. The study also established that there was a delay in the program uptake before improved manufacturing became evident after the introduction of the program. This pointed to the fact that time was needed before the sector could respond to the incentives. The study further established that the effect ot tax incentives diminished over time which reinforced the idea that tax incentives may affect some decision making in some businesses in the short run but not a consideration for most businesses in the long run.

According to IEA (2012), these are tax allowances made to encourage exporters to export at the global prices. The basic concept for the export popularization initiative is that exporters should asses' imports at the global prices to avoid being regarded as engaging in poor competitive practices. The country instituted various tailored to various export groups.

Manufacture under Bond pertains to the benefits given to manufacturers to promote importation of assets and unfinished goods on free tax terms. The move was geared towards encouraging manufacturers to put up shop in the country IEA (2012).

Regarding trade-related benefits, a loss of KSh19.6 -13824 occurred because of Tax Remission for Exports Office (TREO). The study used data from United Nation Conference on Trade and Development (UNCTAD), to establish that Kenya gained $1.15 billion which was less than what Uganda and Tanzania got in the same period.

Second Schedule of Value Added Tax (2015) provides that all exports are zero-rated supplies and hence are taxed at 0% hence Tax remissions export office (TREO) helps manufacturers who produce for export. The manufacturer includes processes required for production of commodities which may include assembling, repackaging or bottling, mixing, blending, resizing, joining or even twisting.

Kosure (2016) used a cross-sectional survey to perform an examination into the dual aspect investment promotion incentives and macro-marketing environment and their effect on financial performance of firms in the EPZ sector. Tests focused on direct influence of investment promotion incentives and the moderating effect of macro-marketing environment on firm performance. The study found that the provision of investment promotion incentives ought to be backed by conducive macro-marketing environment for the realization of the desired firm performance. According to KNBS Economic Survey (2017) cement exports amounts to Kshs. 8,118,000.00, Kshs. 8,292,000.00, Kshs. 7,541,000.00, Kshs. 7,721,000.00 and Kshs. 4,360,000.00 from 2012, 2013, 2014, 2015 and 2016 respectively. This is a zero-rated supplies hence construction companies enjoyed the VAT remission from TREO.

2.4.3 Wear and tear and financial performance

Thomas (2007) found that the U.S. federal government allowed for wear and tear, which is considered as an incentive offered to attract investment into the United States. In Canada, Thomas (2007) found that the incentives game was being played at the provincial level and that they were

much more highly centralized than in the United States. Research work in the Caribbean countries by Bain in 1995, (as cited in Van Parys & James, 2010) estimate revenue loss from tax concessions to have been between 23.5 percent in Anguilla to 53.9 percent in Grenada. A later study by Goyal and Chai (2008) calculated revenue losses of between 9½ and 16 percent of GDP.

According to a study carried out by non-governmental organizations Action Aid and Tax Justice Network Africa (TJN-A), the biggest loss of Sh73.1 billion was incurred through incentives to replace wear and tear of plant and machinery. The second largest loss came from investment deductions through which companies first subtract their spending on new investments before calculating their tax obligations.

Wear and tear is an allowance that is granted to an investor to cater for wear and tear on machinery. Wear and tear allowances are charged on capital expenditure on machinery and equipment where they are classified into five classes all of which are offered the allowances at different rates. Class 1 at a rate of 37.5% - includes heavy earth moving equipment and self-propelling vehicles for example. Lorries above 3 tonnes, forklifts, trucks. Class 2 at a rate of 30% includes computers, photocopiers and scanners. Class 3 at a rate of 25% - includes light self-propelling vehicles and other machines such as aircrafts, motorbikes, Lorries under 3 tonnes. Class 4 at a rate of 12.5% - telephone sets, switch boards, bicycles Income Tax Act (2015).

Githaiga (2013) study on the impact of tax benefits on FDI revenues of firms listed at the NSE. The researcher's attention focus was on the influence of ID, IBD, and depreciation towards appealing to FDI revenues. The study population was compromised of 60 businesses listed at NSE while the sample included 10 firms selected randomly. The study further collected secondary data from the companies' annual performance reports and unqualified financial reports from 2008-2011.

Quantitative data collected by the researcher were analysed using Microsoft Excel program while SPSS was used to analyze qualitative with an aid of a conceptual framework. The findings indicated that tax incentives affected FDI inflows of companies in the NSE. Correlation analysis carried out on FDI and tax incentives variables showed that tax incentives influenced FDI inflows of firms listed at NSE. The outcome strongly linked depreciation to FDI.

2.5 Critique of Literature Review

Literature review showed that a number of studies had been conducted to show the relationship between various tax incentives and performance for instance; Chukwumerije and Akinyomi (2011), Gatsi, Gadzo and Kportorgbi (2013), Onyango (2015) and Agundu and Ohaka (2013). The review showed that much concentration had been on corporate tax incentives and capital allowance incentives with less focus on export promotion incentives and investment promotion incentives even though they had been found to influence the performance of corporate. The review showed that the direct link of tax incentives to performance of firms had not been conducted in depth and only general discussions of tax had been given. The review also showed that the link between tax incentives and performance of firms majorly in the construction sector had not been studied in depth in Kenya.

2.6 Summary of Literature Review

Empirical studies conducted both locally and internationally have showed that tax incentives have different effects on different dependent variables; investment, FDI, performance, R&D expenditure, economic development, sales and performance of firms in different industries.

Several studies have been done both locally and internationally to determine the effects of tax incentives on various dependant variables. From the empirical review above, international scholars

include Alhulail (2014), Mayende (2013) and Kholer (2012) among other scholars. Locally, researchers include Onyango (2015), Githaiga (2013), Gumo (2013) and Njeru (2012) looked into the subject of tax incentives on the performance of financial firms, however none of them evaluated the impact of different constructs for tax incentives on the performance of listed construction companies.

2.7 Research Gaps

Gumo (2013) conducted a study on the effect of tax incentives on foreign direct investments (FDI) in Kenya but did not focus on financial performance. A research gap was also depicted in the studies conducted by Onyango (2015) examined the effect of tax incentives on financial performance of five-star hotels in Nairobi County, the study revealed a conceptual gap since it focused on the five-star hotels while the current study will focus on quoted construction and allied firms in Kenya.

This study therefore seeks to fill the contextual research gap by examining the effect of tax incentives on performance of quoted construction firms in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This part of the study presents a detailed description of the steps and procedure the current study followed in collecting the data that was required in the study. The specific areas covered include; the research design, research approaches population and sample size as well as the sampling procedure. The chapter also describes the data collection and data analysis methods adopted in the study.

3.2 Research Design

This study utilized descriptive approach in its methodological design. The descriptive research was found suitable in this study as it enables simplified description of key characteristics associated with the population of the study. Cooper and Schindler (2006) explained that descriptive design uncovers and measures the cause and effect relationships between variables. Mugenda and Mugenda (2003) explained that descriptive research not only establishes and reports the way things are but also attempt to explain the possible behavior, attitudes, values and features of such factors. Additionally, the researcher will adopt a descriptive design as it enables the study to collect large quantities of meaningful regarding the population under study.

3.3 Target Population

Mugenda and Mugenda (2003) define population as an entire group of individuals, events or objects having common observable characteristics. The target population for the study includes all 10 construction and allied companies quoted at NSE (NSE, 2019).

3.4 Sampling Frame

Sampling frame refers to a list of the items or people forming a population from which a sample is taken. The sample frame for this study is the 67 listed companies in Kenya.

3.5 Sample and Sampling Technique

A sample is a representative section of the target population (Cooper and Schindler, 2006). Sampling involves the researcher securing a representative group that will enable him/her to gain information about the population (Mugenda and Mugenda, 2003). The study used all the 5 construction and allied companies quoted at NSE.

3.6 Research Instrument

The study used secondary data. Reports of the 5 firms for the periods 2014 to 2018 will be obtained from NSE, CMA, KNBS, EPC and KRA. The researcher also obtained data relating to the independent variables from NSE and KNBS. Additionally, the study seeks more data from audited financial reports that includes net returns for each firm to calculate the financial performance, VAT, and capital deductions necessary for calculating the independent variables. The study considers data from 2014 to 2018 as sufficient to address the factors that may affect the stability of the data and enable the researcher to identify trends and patterns in the data.

3.7 Data Collection Procedure

Data collection procedure begun upon approval of the proposal and after obtaining an authorization from the University and also the firms before the data is collected. An introduction letter was then issued to the sampled entities for consent to collect data from the respondents.

3.8 Data Analysis and Presentation

Data analysis began as soon as the data was collected. A computer Statistical Package for Social Science (SPSS) version 21.0 program was used to analyze the data. Descriptive analysis that is frequencies, means and standard deviation, Regression analysis and correlation analysis was used to analyze the data and determine the relationship between the dependent and independent. The findings were presented using tables and regression analysis was used to analyze the variables as shown:

$Y = {}_{\alpha} + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where:

Y = Financial performance

α = Constant Term

$\beta_{1,2,3}$ = Beta coefficients

X_1= Investment promotion tax incentives

X_2= Export promotion incentives

X_3= Wear and tear

ε = Error

3.9 Operationalization and Measurement of Study Variables

The table below shows how the independent and dependent variables will be measured in the study.

Table 3.1: Operationalization and Measurement of Study Variables

Variables	Source Author	Data collection	Measurement scale	Data analysis
Independent Variable				
1. Investment Promotion Incentives 2. Export Promotion Incentives 3. Wear and tear	Parys (2012) Thomas (2007) Madani & Mas-Guix, (2011)	Secondary data KRA NSE CMA EPC KNBS	Ordinal	Multiple regression analysis Correlation analysis
Dependent Variable				
1. ROA	Combs,Crook, & Shook, (2005)			

Source Research (2019)

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This section of the study covers the analysis, interpretation and presentation of data on the effect of tax incentives on the financial performance of listed construction and allied firms in Kenya. The study utilized secondary data, gathered from the financial statement of the listed firms and published financial data on Tax incentives. The construction firms, that formed the basis of this study analysis included; Athi River Mining Ord, Crown Paints Kenya, E.A Cables Ltd, Bamburi Cement Ltd and E.A Portland Cement Ltd.

4.2 Statistical Assumptions Test

The study performed two statistical assumptions tests, notably; the collinearity test and the Autocorrelation test. These tests enable statistical diagnostics of the data, which is critical in determining the fitness of the regression model that was adopted for this study.

4.2.1 Normality Test for the Tax incentive factors

The normality tests examine the normality of data to evaluate whether validity of normal distribution exists. The finding in Table 4.1 highlights the normality test for the predictor variables, which are the constructs for tax incentives. The test for normality measured using Significance level of 0.05 where for p-value <0.05 the data is not normally distributed while at p value >0.05 the data is normally distributed, notably; **investment promotions, export promotions** and **wear and tear**. The study adopts the Shapiro-Wink scale, as proposed by Relvas and Paula (2016). The outputs for Shapiro-Wink scale; **investment promotion** records statistic as 0.864 with **p-value of 0.086 (p > 0.05)**, normal distribution. **Investment promotion** data is normally distributed. **Export**

promotions records, Shapiro-Wink statistic as 0.624, with a **p-value of 0.000 (p < 0.05)**, the data for **export promotion** is not normally distributed. Finally **wear and tear,** registers a Shapiro-Wink score of 0.961 with a **p-value of 0.802(p > 0.05)**. **Wear and tear** is normally distributed.

Table 4.1 the Normality test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
Investment promotions	.245	10	.091	.864	10	.086
Export promotions	.325	10	.004	.624	10	.000
Wear and tear	.150	10	.200	.961	10	.802
a. Lilliefors Significance Correction						

Survey Data (2019)

4.2.2 The Collinearity Test for the effect of tax incentive factors on financial performance

To investigate for the existence of multi-collinearity within the predictor variables, the study performed a regression examination utilizing both tolerance and the variance inflation factor (VIF) as the reference scales. The results in **Table 4.2** present the first collinearity test results for the tax incentives effect on financial performance regression model, estimating tolerance and the variance inflation factor (VIF). The findings showed that, investment promotions incentive records tolerance = 0.079 and VIF = 12.678, the export promotions incentive, tolerance = 0.121 and VIF = 8.291, and finally wear and tear records, tolerance = 0.323 and VIF = 3.098.

The computed findings for the first multi-collinearity test reveals varied levels of correlation between the tax incentives independent variables. According to Borssoi, Paula and Galea (2017), Relvas and Paula (2016), submitted that tolerance and VIF offer a good indicator for the existence of multi-collinearity in a regression model. They proposed the margins for tolerance to be constricted above 0.1 (> 0.1) and the VIF should be constricted below 10 (< 10) to derive a model fit for the study. However, tolerance values of below 0.1 and VIF outputs for above 10, is

considered undesirable in the model. From the fore going results it is clear that multi-collinearity was not violated, except for in Investment Promotions variable VIF= 12.678.

Table 4.2 Multi-Collinearity Test 1 for the tax incentives constructs

Coefficients[a]			
Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	**Investment promotions**	.079	12.678
	Export promotions	.121	8.291
	Wear and tear	.323	3.098
a. Dependent Variable: **Return on assets**			

Survey Data (2019)

4.3 Descriptive Statistics

Descriptive statistics focused on the means and standard deviation for the independent variables metrics, notably; the investment promotion incentives, export promotion incentives and wear and tear. The findings in Table 4.3 highlight the descriptive data which include the Mean and standard deviation for the tax incentives variables, notably; investment promotions, export promotions and wear and tear. The investment promotions incentive, the study deduces a mean of 54.79% (standard deviation = 41.7132), the export promotions incentives, deduces a mean of 80.33% (standard deviation = 107.6351), and finally for the wear and tear, the study deduces a mean of 58.11% (standard deviation = 29.5689).

The period of analysis, stretches for 5 years, 2014 – 2018, with investment promotions and wear and tear incentive metrics recording an average of over 60% for the different tax incentive gains. The export promotions, recorded an average of 35% for the same period. The findings show that listed construction firms have leveraged their financial portfolio with significant rewards in form of tax incentives.

Table 4.3 Tax Incentive factors mean and Standard Deviation

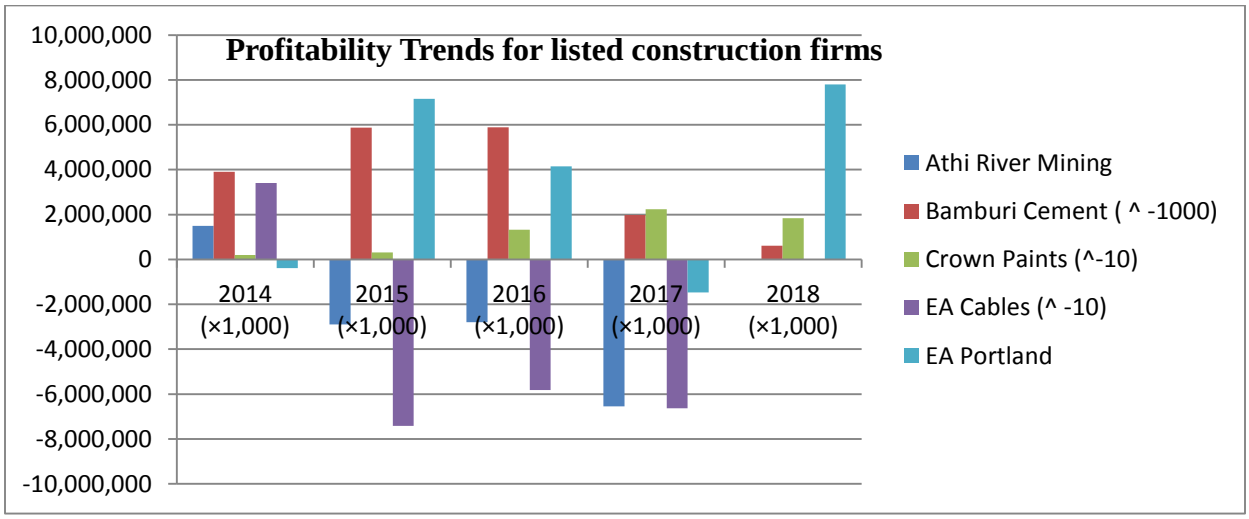
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Investment promotions	10	54.79%	41.71321174	1.537	0.687	2.832	1.334
Export promotions	10	80.33%	107.63351354	2.743	0.687	8.058	1.334
Wear and tear	10	58.11%	29.56889524	-0.200	0.687	-0.791	1.334
Valid N (list wise)	10						

Survey Data (2019)

4.3.1 Profitability Trend of the Listed Construction Firms

The listed construction firms have registered mix results in revenues for the past five years (2014 – 2018), registering periods of profits and losses at the same time. The results in figure 4.1 highlights the trends in profits and loss performance for the period aggregated (2014 – 2018)

Figure 4.1 Profitability Trends for the listed construction firms



Source: Capital Markets Authority (2019)

The findings, in figure 4.1, highlight the profitability performance of the listed construction for aggregated financial period of five years. Bamburi Cement Ltd and crown Paints, are the only companies to have enjoyed steady profitability throughout the time in consideration. All the other

firms have experienced mixed performance with stints of both profitability and losses. The findings indicate that most firms in the construction sector have been struggling, indicating an absorption of more operational costs with poor returns which portends fewer prospects for investment capital injection.

4.4 Correlations Analysis for the influence of tax incentives on financial performance

The study performed correlations analysis to assess the level of correlation that exists between the independent predictor tax incentive variables and the dependent predicted variable which is financial performance. According to Relvas and Paula (2016), correlation test presented by the r-value, offers a demonstration on the existing association between independent predictor variables and the dependent variables in a study. The level of correlation is determined to be either, weak if r-value > 0 and ≤ 0.3, or moderate if r-value > 0.3 and ≤ 0.499, or strong if r-value ≥ 0.5.

The findings in Table 4.4, highlights the correlation results for the tax incentive variables notably; investment promotions, export promotions and the wear and tear tested against financial performance measured using return on assets. The findings indicate that, there exists a positive correlation between investment promotions and returns on assets, recording, r-value of 0.631 ($p=0.05$, $p=0.05$), this concludes that correlation between investment promotion and financial performance is not statistically significant. The findings also establish a positive correlation between export promotion incentive and returns on assets, recording an r-value of 0.419 and a p-value of 0.228, $p > 0.05$). This concludes that correlation between Export promotion variable and financial performance is not statistically significant. Finally, a strong correlation was established between wear and tear and returns on assets, which is also deduced as statistically, insignificant, recording a r-value of 0.529 and a ($p = 0.116$, $p >0.05$). This indicates that the correlation between wear and tear and financial performance is not statistically significant.

Table 4.4 Correlation analysis of tax incentive factors on financial performance

	Return on Assets	Investment promotion incentives	Export promotion incentives	Wear and tear
Return on Assets	1			
Investment promotion incentives	0.631	1		
Export promotion incentives	0.419	0.885**	1	
Wear and tear	0.529	0.649*	0.340	1

*Correlation is significant at 0.05 levels (2-tailed)

Survey Data (2019)

4.5 Regression Analysis of Tax incentive factors on financial performance

The study employed linear regression, to evaluate the effect of independent variable measures, encompassing tax incentives dimensions which include; investment promotions, export promotion incentives and wear and tear on the financial performance of listed construction firms. In estimation of financial performance, return on assets offers a good picture on the firm's performance within the same economic sector (Purnamasari, 2015). Therefore, to aggregated financial performance of construction, return on investments was used as the financial performance indicator in this analysis.

Model Summary

The study performed a linear regression test, to examine the existing relationship between investment promotions incentives and the financial performance of listed construction firms. The findings in Table 4.5, highlights the model summary for the regression test between investment promotion incentives and financial performance.

Table 4.5 Effect of investment promotions on financial performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631[a]	.398	.323	.0159018146

a. Predictors: (Constant), Investment promotions

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.001	1	.001	5.295	.050
	Residual	.002	8	.000		
	Total	.003	9			

a. Dependent Variable: return on assets

b. Predictors: (Constant), Investment promotions

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.032	.009		3.714	.006
	Investment promotions	.0000292	0.000127	.631	2.301	.050

a. Dependent Variable: return on assets

Survey Data (2019)

The second test performed on **Table 4.5** in the study was a linear regression test between investment promotion incentive and the financial performance. The findings in Table 4.6 indicate that the r value deduced in the test is **0.631** with an **R-square, 0.398.** The study deduces that, a positive correlation 63.1 % between investment promotions incentives and financial performance. Furthermore the study establishes that, investment promotions explain 39.8% of variation in financial performance of construction companies.

The remaining 60.2% of the variability in the data is explained for by other factors not included in the model. The finding also reveals P value of 0.05, p= 0.05. The relationship between investment promotions and financial performance is not statistically significant.

Table 4.6 Effect of export promotion incentives on financial performance

Model Summary

0Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.419[a]	.174	.072	.018614647536665

a. Predictors: (Constant), Export promotions

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.001	1	.001	1.702	.228
	Residual	.003	8	.000		
	Total	.003	9			

Coefficients[a]

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	.042	.007		5.591	.001
	Export promotions	0.000075	.000	.419	1.305	.228

a. Dependent Variable: **return on assets**

a. Dependent Variable: return on assets

b. Predictors: (Constant), Export promotions

The study also performed a regression test between export promotion and financial performance of listed construction firms. The findings in **Table 4.6** show the model summary for the regression test, between the export promotion and the financial performance of construction firms. The test deduces an R-value =0.419 and R-square value = 0.174. This illustrates existence of marginal positive correlation between export promotion variable and financial performance. Further, the test indicates that, export promotion explains, 17.4% of variation in financial performance. This implies that the remaining 82.6% of variation in financial performance is caused by other factors not included in the model. The finding also reveals the relationship between Export promotions

and financial performance is not statistically significant with a P value of 0.228, P > 0.05. Illustrating that relationship between export promotion and financial performance is not statistically significant.

Table 4.7 Effect of wear and tear on the financial performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.529	.280	.189	.017400283549975

a. Predictors: (Constant), Wear and tear

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	3.104	.116
	Residual	.002	8	.000		
	Total	.003	9			

a. Dependent Variable: return on assets

b. Predictors: (Constant), Wear and tear

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.003	.087		.038	.971
	Wear and tear	.003	.001	.664	2.509	.036

a. Dependent Variable: return on assets

The study also performed a regression test between wear and tear and financial performance of listed construction firms. The findings in **Table 4.7** show the model summary for the regression test, between wear and tear and the financial performance of construction firms. The test deduces an R-value =0.529 and R-square value = 0.280. This shows existence of marginal association of 52.9% between wear and tear and financial performance. Further, the test indicates that, wear and

tear explains, 28 % of variation in financial performance. This implies that the remaining 72% of variation in financial performance is caused by other factors not included in the model. The finding also reveals the relationship between wear and tear and financial performance is not statistically significant with a P value of 0 .116 which is more than 0.05.

4.5.1 Multivariate Regression of Tax incentive Variables versus Financial Performance

In the multivariate regression test, the study employed the three predictor variables, notably investment promotions incentives, export promotions incentive and wear and tear against the financial performance of construction firms (aggregated using return on assets). The

The findings in **table 4.8** highlights the model summary for the tax incentive factors versus financial performance, deduces an R-value of 0.702 and R-square value of 0.492. This indicates that there exists a strong positive correlation of 70.2% between tax incentive factors investments, export promotions and wear and tear and the financial performance. The findings imply that, the aggregated tax incentive factors including investments, export promotions and wear and tear explain 49.2% of variability in the financial performance of listed construction firms, leaving the remaining 50.8% caused by factors not included in the model. The finding also reveals P value of 0.225 which is P>0.05. The relationship between tax incentive factors investment promotion, export promotions and wear and tear, and financial performance is not statistically significant.

Table 4.8 Overall influence of tax incentive factors on financial performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702[a]	.492	.238	.016868

a. Predictors: (Constant), IP, EP, AD

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.048	.005		8.984	.000
	Investment promotions	.008	.004	.605	2.079	.083
	Export promotions	.004	.007	.156	.535	.612
	Wear and tear	-.029	.026	-.320	-.099	.314

a. Dependent Variable: Financial performance

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.002	3	.001	1.939	.225[b]
	Residual	.002	6	.000		
	Total	.003	9			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), AD, EP, IP

4.5.2 The regression Equation for tax incentive factors influence on financial performance.

The multivariate regression output in table 4.8, highlight the beta-coefficients for the tax incentive factors versus financial performance, deducing; $\alpha_{\text{constant}} = 0.048$, $\beta 1_{\text{investment promotions}} = 0.008$, $\beta 2_{\text{export promotions}} = 0.004$, $\beta 3_{\text{wear and tear}} = -0.029$.

The model equation for the study: $y = \alpha + \beta 1x1 + \beta 2x2 + \beta 3x3 + \varepsilon$

Where; y = financial performance, α = constant, β_1 = beta coefficient for investment promotions incentive, x_1 = investment promotion incentive, β_2 = beta coefficient for export promotions incentive, and x_2 = export promotion incentive, β_3 = beta coefficient for wear and tear, and x_3 = wear and tear, ε = Error or Residual value.

Therefore the model equation:

Financial Performance = 0.0048+ 0.008 ***investment promotions+** 0.004***export promotions** -0.029***wear and tear**

The model derived implies that, tax incentive variables, investment and export incentive promotions have a positive marginal statistical association, whereas wear and tear yields a negative effect of the model. The findings imply that for every one unit change in investment promotions incentive, a marginal **0.008** unit increase will be recorded for the financial performance. Further, the findings indicate that, for every unit change in export promotions incentive, a marginal **0.004** unit increase will be recorded for the financial performance. However, the findings also imply for every one unit change in wear and tear financial performance a negative **-0.029** unit decrease in financial performance.

The study establishes that, tax incentive schemes, notably; the investment promotion incentives and the export promotions incentives, wield a negative influence on the financial performance of

listed construction firms in Kenya, whereas wear and tear wields a negative association with financial performance.

4.5.3 Analysis of Variance

The findings in table 4.8 highlight the analysis of variance (ANOVA), for the combined variables which indicates that there exists a statistical association between the combined predictor variables for tax incentive and financial performance of construction companies in Kenya, T(4.8) = 0.702 and p-value = 0.225 ($p > 0.05$). We therefore accept the null hypothesis that there is no statistical significant difference between the tax incentive factors, investment promotions, export promotion and wear and tear.

4.6 Discussion of Findings

The objective of the research study was to establish the effect of tax incentives on financial performance of construction and allied firms listed in Kenya. Descriptive, correlation and regression analyses were used.

4.6.1 Influence of investment promotions incentives on the financial performance

The findings reveals that the regression test model is statistically significant and that there exists relationship between the predictor variable promotions incentives and the dependent variable, recording T (4.5) = 0.631, p-value =0.050 ($p > 0.05$). This implies that there was a statistically significant association between investment promotion incentives and financial performance of listed construction firms. The beta coefficients output for investment promotions versus financial performance, recording; $\beta_{\text{constant}} = 0.048$, $\beta_{\text{Investment promotion}} = 0.008$ and p-value of 0.050 ($p > 0.05$), which imply the test is statistically significant. This finding implies that, for every unit change recorded predictor variable investment promotions incentive, it triggers a 0.008 unit change in the

dependent variable, financial performance. Therefore, the study establishes a small positive effect of investment promotion incentive on the financial performance.

The findings of this study are consistent with the submissions of Parys (2012) who established that, positive effect of investment promotion incentives on firms financials, contributed towards attracting investments and glowing capital inflows. Similarly, the findings are in line with the conclusions by Gumo (2013) and Ngure (2018), who found that investment promotions incentives positively in growing the financial base of firms in the manufacturing industry.

4.6.2 Influence of export promotions incentives on the financial performance

The findings on regression test indicates that a statistical relationship exists between the predictor variable and the dependent variable, T (4.6) = 0.419, and p-value = 0.228 ($p > 0.05$). Therefore the findings imply that, there isn't a statistical significance between export promotions incentive and financial performance of listed construction firms. The test regression outcome for beta coefficients, for the regression test between export promotions versus financial performance, deducing; $\beta_{\text{constant}} = .048$ and $\beta_{\text{export promotions}} = 0.004$. The outcome implies that, for every unit change in export promotions, results in a 0.004 units change in financial performance. This indicates that for every positive change in export promotions incentives results in positive increase in the financial performance of listed construction firms in Kenya.

These findings support the submissions by Kosure (2016) who found the existence of moderating influence of export promotion incentive on the overall firm performance. Also, the findings are consistent with Kuria (2018), who established that significant quantitative relationship existed between custom tax incentives such as the export investment relationship and the performance of manufacturing companies.

4.6.3 Influence of wear and tear on the financial performance

The findings reveals that there exists no significant association between the predictor variable (wear and tear) and dependent variable (return on assets), T (4.7) = 0.529, p = 0.116 (p > 0.05). The study leads us to accept the null hypothesis, that there exists no significant statistical association between wear and tear and the financial performance of listed construction firms. The findings regression test records a beta output for the predicted output, $\beta_{\text{Wear and tear}}$ = -0.029, with the p-value = 0.368 (p >0.05). This implies that, wear and tear models employed by the listed Kenyan, construction firms have a negative quantitative effect of -0.029 on the financial performance of the firms.

These findings are consistent with results by Sielaff and Wolf (2016) on the influence of wear and tear towards firm financial performance. The moderating factor generated by wear and tear, is found to be marginal, which indicates that, the effect on financial performance is subjective and industry specific. Further, the findings support submissions by Ackerman, Fochmann and Wolf (2016), who found limited summative effect of wear and tear on the financial performance, due to the difficulties in calculating wear and tear accurately.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section of the study discusses the summary of the findings, conclusions, recommendations, limitations and the suggestions for further studies in regard to the influence of tax incentive models on the financial performance of construction firms.

5.2 Summary of the Findings

The purpose of this study was to perform a critical examination on the influence of tax incentive schemes on the financial performance of listed construction firms in Kenya. The study utilized secondary data, based on published financial records for the construction firms and the formal annual tax incentive rates as reported by the tax regulator. The study employed statistical analysis utilizing inferential techniques notably; correlation and multiple regressions to examine the existence of relationships between tax incentive factors, which include; investment promotions, export promotions and wear and tear on the financial performance of construction estimated using return on assets.

5.2.1 Influence of Investment Promotion Incentives on the Financial Performance

The first objective was to determine the influence of investment incentives on the financial performance of listed construction firms. The first test was correlation analysis whose quantitative output revealed existence of a strong positive correlation between investment promotional incentives and the returns on assets. Further, the regression test outcome revealed that investment promotion incentive wielded a statistical association and triggered proportionate changes to the returns on assets. The study found that, investment promotion incentives positively correlated and

influenced the financial performance of listed construction firms in Kenya. Positive changes towards increasing the proportions for investment promotion incentives positively impacted on the financial base of listed constructed firms, which subsequently contributed towards increasing capital inflows.

5.2.2 Influence of Export Promotion Incentives on the Financial Performance

The second objective of the study was to examine the influence of export promotions incentives on the financial performance of listed construction firms. The correlation test output highlighted existence of a strong positive correlation between export promotions incentives and returns on assets. The regression output indicated the existence of statistical association between export promotions and the financial performance of listed construction firms. The study established that, export promotions wield influenced on the financial performance of listed construction firms in Kenya. Further, the study found that, positive changes such as increases and extensions of periodic timelines for export promotions boosted financial prospects of industrial operations for listed construction firms in Kenya.

5.2.3 Influence of wear and tear on the Financial Performance

The third objective of the study was to examine the influence of wear and tear on the financial performance of listed construction firms. The correlation test output indicated a moderate correlation between wear and tear and returns on assets. The regression output indicated that wear and tear wielded a marginal effect in the outcome of returns on assets. The study established that wear and tear has a very little effect on the financial performance of listed construction firms in Kenya. The study also found that, determination of wear and tear factor was central in assessing its influence on the financial performance of listed construction firms in Kenya.

5.3 Conclusions

The study concludes that increase in investment and export promotion incentives causes partial positive effects on financial performance of the listed construction firms in Kenya as it was found out from the regression analysis. The study also concluded that a change in wear and tear negatively affects the financial performance of the listed construction firms in Kenya.

5.4 Recommendations

The study recommends that there is need for government to review the provision of tax incentives and adopt a tight spectrum for the definition of all the tax incentives extended to listed construction firms in Kenya since they cause partial positive effect on financial performance. A unit increase in ID and IBD causes a partial increase in financial performance while a unit increase in wear and tear causes negative effects on financial performance. The study also recommends for periodic reforms to tax incentives specifically the investment promotions and the export promotions, to effectively spur continued financial growth of these firms thereby enhancing revenues which boosts the portfolio bracket for corporate tax.

Firms should make use of the benefits received as a result of tax incentives to save and invest on other projects rather than using them to gather for operational costs.

5.5 Limitations of the Study

The study was limited to 5 years starting from 2014 to 2018 and most of the construction and allied firms have been existing for more than 10 years hence making it difficult to establish the tax incentives. Also secondary data that was collected from published financial records of the listed construction firms and also from regulatory briefs from the KRA. The data obtained from the published financial records detailed extensive list of metrics for gauging various elements of

financial information, which made it difficult to extract the key critical indicators, especially on the capital inflows and investment injections. This limited the study to rely squarely on published data on returns on assets from the published reports of the listed construction firms in Kenya.

5.6 Further Research

The study proposes for the same research to be done on other construction firms not listed in NSE such as Savannah Cement and Simba Cement. Also the study proposes for more research in the scope of tax incentives for construction firms and the quantitative gains for the different components of national income (GDP) that are impacted by the financial performance of construction firms. The proposed study, should seek to explore whether the country gains positively on the improved financial performance amongst construction companies that is derived from benefits in tax incentives. There is a need for a similar study on Tax incentives to firms in the other sectors such as investment firms.

It is also worth to note that return on assets has been used as a measure of financial performance. Thus, researchers interested in conducting further research in this area should consider using other measures to measure performance for instance gross profit margin, working capital, quick ratio, financial leverage or debt-to-equity ratio.

REFERENCES

Amariati, S. N. (2013). The extent to which financial factors affect profitability of manufacturing firms listed in the Nairobi stock exchange (Doctoral dissertation, Kenyatta University).

Amendola, A., Boccia, M., Mele, G. and Sensini, L. (2018). Fiscal incentives and firm performance evidence from Dominican Republic

Atawodi, O. W., & Ojeka, S. A. (2012). Factors that affect tax compliance among small and medium enterprises (SMEs) in North Central Nigeria. *International Journal of Business and Management*, 7(12), 87.

Barbour, P. (2005). An Assessment of South Africa's investment incentive regime with a focus on the manufacturing sector, *ESAU Working Paper 14*, Overseas Development Institute, London.

Boadway, R. & Shah, A. (1995). Perspectives on the Role of Investment Incentives, in A. Shah (ed.), Fiscal Incentives for Investment and Innovation, Washington, DC: World Bank.

Borssoi, J. A., Paula, G. A., & Galea, M. (2017). Elliptical linear mixed models with a covariate subject to measurement error. *Statistical Papers*, 1-39.

Capital Markets Authority (2002). Guidelines on corporate governance in public listed companies in Kenya. *Kenya Gazette Notice No. 369*, 122-128.

Chua, D. (1995). Tax Incentives, in P. Shome (ed.), *Tax Policy Handbook*, International Monetary Fund, Fiscal Affairs Department, Washington, DC: World Bank.

Clark, S., Cebreiro, A., & Bohmer, A. (2007). Tax incentives for investment- a global perspective: Experiences in MENA and non-MENA countries. *MENA-OECD Investment Programme.*

Cochran, M. (1999). Normative theory in international relations: a pragmatic approach (Vol. 68). Cambridge University Press.

Cooper, R. & Schindler, P. (2006). Business research methods. Singapore: McGraw-Hill

Easson, A., & Zolt, E. M. (2013). Tax incentives. World Bank Institute, 1-36.

Ferreira, C. S., & Paula, G. A. (2017). Estimation and diagnostic for skew-normal partially linear models. *Journal of Applied Statistics*, *44*(16), 3033-3053.

Fletcher, K. (2003). An Evaluation of Marginal Effective Tax Rates on Domestic Investment in South Africa between 1994 and 2002, MA thesis, University of Witwatersrand.

Gatsi, J. G., Gadzo, S. G., & Kportorgbi, H. K. (2013). The effect of corporate income tax on financial performance of listed manufacturing firms in Ghana. *Research Journal of Finance and Accounting*, 4(15), 118-124.

Githaiga, I. (2013). The impact of tax incentives on foreign direct investments inflows of firms listed at the Nairobi Securities Exchange. Unpublished MBA Project, University of Nairobi

Gumo, O. M. (2013). The effect of tax incentives on foreign direct investments in Kenya. An unpublished MBA project, University of Nairobi.

Harju, J., Kosonen, T. (2012). The impact of tax incentives on the economic activity of entrepreneurs, Working Paper 18442, National Bureau of Economic Research.

Institute of Economic affairs. (2012). Tax incentives and exemption regime in Kenya: Is it working? A *Publication of the IEA Budget Information Programme Issue No. 30*

International Bank for Reconstruction and Development (IBRD). (1998). Report No. EC – 102, 1998.

Kaplan, D. (2001). Rethinking Government Support for Business Sector R&D in South Africa: The Case for Tax Incentives. *The South African Journal of Economics*, 69(1), 72-73.

Kelley. H. S. (2004). Making trade policy in a new democracy after a deep crisis: Indonesia. *The World Economy*, 31(7), 947-968

Klemm, A., Parys, S. V. (2009). Empirical evidence on the effects of tax incentives

Kothari, C.R. (2004). Research methodology: Methods and techniques. Second Revised Edition. New Delhi: *New Age in International Publisher*

KRA (2009). Taxation and foreign direct investment a synthesis of empirical research: CPB Discussion Paper. Hague:

Kuria, J. (2017). Effects of Tax Incentives on the Performance of Export Processing Zone (EPZ) Firms in Kenya. Unpublished PhD Thesis at United States International University Africa

Madani, D.H. and Mas-Guix, N. (2011). The impact of export tax incentives on performance evidence from the automotive sector in South Africa.

Maïnassara, Y. B., & Amir, A. I. (2018). Multivariate portmanteau tests for weak multiplicative seasonal VARMA models. *Statistical Papers*, 1-32.

Mayende, S. (2013). The Effects of Tax Incentives on Firm Performance: Evidence from Uganda. *Journal of Politics and Law*, 6(3), 95-108.

Mugenda, O. and Mugenda, A. (2003). Research Methods: Quantitative and Qualitative Approaches. 2nd Rev. ed. Nairobi: Act press.

Murage, J.D. (2012). The effects of Tax Incentives on investments of export processing zones firms in Kenya: University of Nairobi.

Musyoka, K. (2012). The relationship between tax incentives and foreign direct investment in Kenya. Unpublished MBA Project, University of Nairobi.

Ngure, P. (2018). Tax Incentives and Performance of Selected Manufacturing Firms in Kenya. Unpublished MBA thesis at Kenyatta University

Njeru, D. M., & Ndimitu, P. N. (2015). The effect of tax incentives on investment among Export Processing Firms (EPZs) in Kenya. *Prime Journal of Business Administration and Management*, 5(3), 1798-1806.

Njuru, S. G., Ombuki, C., Wawire, N., & Susan, O. (2013). Taxation and private investment: evidence for Kenya.

Oghoghomeh, T. (2014). An assessment of agribusiness tax incentives in Nigeria. *International Journal of Business and Economic Development*, 2(1), 129-137.

Ohaka, J., & Agundu, P. U. C. (2012). Tax incentives for industry synergy in Nigeria: A pragmatic proprietary system advocacy. *African Research Review*, 6(3), 42-58.

Ohaka, J., & Dagogo, D. W. (2015). Re-investment allowance, investment tax credit, and the reality of corporate cash flow in Nigeria. *Journal of Economics and Finance*, 6(2)

Okauru I. (2009). How Corporate Nigerians Can Maximize on the Provisions of Tax Incentives for Private Sector Contribution to Sports Development in Nigeria. *Paper Presented at the National Sports Commission Stakeholders Conference Abuja*.

Olaleye, M. O., Riro, G. K., & Memba, F. S. (2016). Effect of reduced company income tax incentives on foreign direct investment in listed Nigerian manufacturing companies. *European Journal of Business, Economics and Accountancy*, 4(1), 39- 54.

Ondabu I., Muturi, W., & Kisaka E. (2016). Effects of Tax Incentives on Performance of Listed Firms in Kenya. *International Journal of Scientific and Research Publications*, 6(7), 678-691.

Onyango, M. (2015). The Effect of Tax Incentives on Financial Performance of Five-Star Hotels in Nairobi County. Unpublished MBA thesis at University of Nairobi.

Philips, E. (2010). Tax Incentive and employment opportunities in an economy, Washington, DC: World Bank.

Qu, X., Cui, W. and Xing, J. (2017). Local tax incentives and behavior of foreign enterprises: evidence from a large developing country

Rapuluchukwu, E. U., Belmondo, T. V., & Ibukun, B. (2016). Incentives and firm's productivity: Exploring multidimensional fiscal incentives in a developing country *(No. 1606).* OCP Policy Center.

Raza, S. A., Ali, S. A., & Abassi, Z. (2011). Effect of corporate income tax and firm's size on investment: Evidence by Karachi stock exchange.

Relvas, C. E. M., & Paula, G. A. (2016). Partially linear models with first-order autoregressive symmetric errors. *Statistical Papers*, *57*(3), 795-825.

Rumina, U.A, Balandina, A.S. and Bannova, K.A (2019). Evaluating the effectiveness of tax incentives in order to create modern tax mechanism innovation development.

Saez, E., & Stantcheva, S. (2016). Generalized social marginal welfare weights for optimal tax theory. *The American Economic Review*, 106(1), 24-45.

Tembur, N. (2016). Effect of Tax Incentives on Financial Performance of Export Processing Zone Firms In Kenya. Unpublished MBA thesis at University of Nairobi.

Teraoui, H., Kaddour, A., Chichti, J., & Jaleleddine, R. (2011). Impacts of Tax Incentives on Corporate Financial Performance: The Case of the Mechanical and Electrical Industries Sector in Tunisia, 3(6), 117-129.

Tirimba, O. I., Muturi, W., & Sifunjo, K. E. (2016). Effects of tax incentives on performance of listed firms in Kenya. *International Journal of Scientific and Research Publications*, 6(7), 678-690.

UNCTAD. (2000). Tax incentives and foreign direct investment: A global survey, United Nations .New York and Geneva: *United Nations Publications*.

Wachira, D.W. (2011). *A survey of tax avoidance and incentives schemes adopted by Kenya Airways.*(Unpublished MBA Project, University of Nairobi).

APPENDIX I: Cumulative raw data collection instrument for 5 construction and allied firms quoted on NSE for a period of 5 years (2014 – 2018)

Listed company	IP1	IP2	IP3	IP4	IP5	EP1	EP2	EP3	EP4	EP5	WT1	WT2	WT3	WT4	WT5	ROA1	ROA2	ROA3	ROA4	ROA5	IP	EP	WT	ROA
Athi River mining	28	5	34	2	45	22	38	26	2	4	1	25	27	38	45	0.058	0.0807	0.1063	0.1358	0.1197	22.80	18.40	27.20	0.10
Bamburi Cement	135	114	154	148	212	292	338	411	433	402	353	0	0	0	0	0.0789	0.0422	1.466	0.3048	0.4571	152.60	375.20	70.60	0.47
Crown Paints Kenya	49	68	32	33	27	35	48	231	138	51	29	72	67	60	54	0.0618	-0.0088	0.2852	0.0658	0.1078	41.80	100.60	56.40	0.10
East African Cables Ltd	66	61	80	40	-50	41	5	50	114	159	199	25	70	34	67	-0.0101	-0.0008	0.0711	0.0599	0.0929	39.40	73.80	79.00	0.04
East African Portland cement	66	70	81	31	75	48	84	80	120	193	172	39	84	43	92	-0.0168	0.038	-0.0272	0.0206	0.2234	64.60	105.00	86.00	0.05

APPENDIX II: List of construction and allied firms quoted on NSE

	FEATURES OF NSE EQUITY SECURITIES			
NO.	**SECURITIES**	**ISIN CODE**	**TRADING SYMBOL**	**TOTAL NUMBER OF ISSUED SHARES**
	AGRICULTURAL			
1	Eaagads Ltd	KE0000000208	EGAD	32,157,000
2	Kakuzi Ltd	KE0000000281	KUKZ	19,599,999
3	Kapchorua Tea Co. Ltd	KE4000001760	KAPC	7,824,000
4	The Limuru Tea Co. Ltd	KE0000000356	LIMT	1,800,000
5	Sasini Ltd	KE0000000430	SASN	228,055,500
6	Williamson Tea Kenya Ltd	KE0000000505	WTK	17,512,640
	AUTOMOBILES & ACCESSORIES			
7	Car & General (K) Ltd	KE0000000109	C&G	40,103,308
8	Marshalls (E.A.) Ltd	KE0000000364	MASH	14,393,106
9	Sameer Africa Ltd	KE0000000232	FIRE	278,342,393
	BANKING			
10	Barclays Bank of Kenya Ltd	KE0000000067	BBK	5431536000
11	CFC Stanbic of Kenya Holdings Ltd	KE0000000091	CFC	395321638
12	Diamond Trust Bank Kenya Ltd	KE0000000158	DTK	266321115
13	Equity Group Holdings Ltd	KE0000000554	EQTY	3773674802
14	Housing Finance Group Ltd	KE0000000240	HFCK	352416667
15	I&M Holdings Ltd	KE0000000125	I&M	392362039

16	KCB Group Ltd Ord	KE0000000315	KCB	3,066,056,647.00
17	National Bank of Kenya Ltd	KE0000000398	NBK	308000000
18	NIC Group PLC	KE0000000406	NIC	639945603
19	Standard Chartered Bank Kenya Ltd	KE0000000448	SCBK	343510571.1
20	The Co-operative Bank of Kenya Ltd	KE1000001568	COOP	4889316295
	COMMERCIAL AND SERVICES			
21	Atlas African Industries Ltd	KE4000004095	ADSS	1,497,370,885
22	Express Kenya Ltd	KE0000000224	XPRS	35,403,790
23	Hutchings Biemer Ltd	KE0000000257	HBER	360,000
24	Kenya Airways Ltd	KE0000000307	KQ	1496469035
25	Longhorn Publishers Ltd	KE2000002275	LKL	369940476
26	Nairobi Business Ventures Ltd	KE5000000090	NBV	23,600,000
27	Nation Media Group Ltd	KE0000000380	NMG	188542286
28	Standard Group Ltd	KE0000000455	SGL	81,731,808
29	TPS Eastern Africa Ltd	KE0000000539	TPSE	182,174,108
30	Uchumi Supermarket Ltd	KE0000000489	UCHM	364,959,616
31	WPP Scangroup Ltd	KE0000000562	SCAN	378865102
	CONSTRUCTION & ALLIED			
32	ARM Cement Ltd	KE0000000034	ARM	495,275,000
33	Bamburi Cement Ltd	KE0000000059	BAMB	362,959,275
34	Crown Paints Kenya Ltd	KE0000000141	BERG	71,181,000
35	E.A.Cables Ltd	KE0000000174	CABL	253,125,000
36	E.A.Portland Cement Co. Ltd	KE0000000190	PORT	90,000,000
	ENERGY & PETROLEUM			
37	KenGen Co. Ltd	KE0000000547	KEGN	6,243,873,779

38	KenolKobil Ltd	KE0000000323	KENO	1,471,761,200
39	Kenya Power & Lighting Co Ltd	KE0000000349	KPLC	1,951,467,045
40	Kenya Power & Lighting Ltd 4% Pref 20.00	KE4000001877	KPLC.P0004	1,800,000
41	Kenya Power & Lighting Ltd 7% Pref 20.00	KE4000002982	KPLC.P0007	350,000
42	Total Kenya Ltd	KE0000000463	TOTL	175,028,706
43	Umeme Ltd	KE2000005815	UMME	1,623,878,005
	INSURANCE			
44	Britam Holdings Ltd	KE2000002192	BRIT	1,938,415,838
45	CIC Insurance Group Ltd	KE2000002317	CIC	2,615,538,528
46	Jubilee Holdings Ltd	KE0000000273	JUB	65,884,500
47	Kenya Re Insurance Corporation Ltd	KE0000000604	KNRE	699,949,068
48	Liberty Kenya Holdings Ltd	KE2000002168	CFCI	535,707,499
49	Pan Africa Insurance Holdings Ltd	KE0000000414	PAFR	144,000,000
	INVESTMENT			
50	Centum Investment Co Ltd	KE0000000265	ICDC	665,441,775
51	Home Afrika Ltd	KE2000007258	HAFR	405,255,320
52	Kurwitu Ventures Ltd	KE4000001216	KURV	102,272
53	Olympia Capital Holdings Ltd	KE0000000166	OCH	40000000
54	Trans-Century Ltd	KE2000002184	TCL	281,426,593
	INVESTMENT SERVICES			
55	Nairobi Securities Exchange Ltd Ord 4.00	KE3000009674	NSE	259,500,000
	MANUFACTURING & ALLIED			

56	A.Baumann & Co Ltd	KE0000000018	BAUM	3,840,066
57	B.O.C Kenya Ltd	KE0000000042	BOC	19,525,446
58	British American Tobacco Kenya Ltd	KE0000000075	BAT	100,000,000
59	Carbacid Investments Ltd	KE0000000117	CARB	254,851,988
60	East African Breweries Ltd	KE0000000216	EABL	790,774,356
61	Eveready East Africa Ltd	KE0000000588	EVRD	210,000,000
62	Flame Tree Group Holdings Ltd	KE4000001323	FTGH	161,866,804
63	Kenya Orchards Ltd	KE0000000331	ORCH	12,868,124
64	Mumias Sugar Co. Ltd	KE0000000372	MSC	1,530,000,000
65	Unga Group Ltd	KE0000000497	UNGA	75,708,873
	TELECOMMUNICATION & TECHNOLOGY			
66	Safaricom Ltd	KE1000001402	SCOM	40,065,428,000
	REAL ESTATE INVESTMENT TRUST			
67	STANLIB FAHARI I-REIT. Ord.20.00	KE5000003656	FAHR	180,972,300