RELATIONSHIP BETWEEN TAX PAID AND LEVEL OF INVESTMENT FOR THE QUOTED COMPANIES IN KENYA.

BY

MOSES KIPNGETICH ROP

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DECLARATION

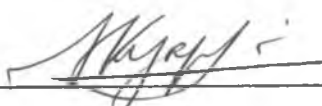This management project report is my original work and has not been submitted for a degree in any other university

Signed _____ NRIS _____

MOSES KIPNGETICH ROP

D61/70200/2009

Date _____ 7|11|11 _____

This management project has been submitted for examination with my approval as the university supervisor

Signed _____

Mrs. Kithinji

Date _____ 11-11-2011 _____

DEDICATION

This project is dedicated to my dear wife Margaret Chepng'etich Ng'eny and my parents.

Your support, encouragement and appreciation of my work enabled me to soldier on.

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ABSTRACT

Tax policies are normally used to stimulate investment and can be varied depending on how an economy of a country is doing. The government can thus stimulate the economy by using tax policies in place. This would in turn enable companies to make investment choices depending on how appropriate the tax policies are.

The objectives of the study were to evaluate the relationship between tax paid and level of investment by quoted companies in Kenya. In the various industry groups there had been a general increase in the amount of tax paid as well as investment. However due to the political violence in 2008, there had been a slight drop in the tax paid based mainly because of decline in profits, while also for investment the cautious approach companies took sought a stable political environment. This was further influenced by the large number of subsidiaries of multinationals which withheld their investment in the country.

ABBREVIATIONS

KRA   Kenya Revenue Authority

VAT   Value Added tax

FDI   Foreign Direct Investment

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

In Kenya, taxation is the single largest source of government budgetary resources. Between 1995 and 2004, tax revenue constituted 80.4% of total government revenue. The importance of non-tax revenue is also significant in sustaining the public budget, although its importance is much less than the role of taxation given that it's share over the same period was 15.1%. Foreign grants play a minimal role as they have averaged only 4.5%. Given it's central role, taxation has been applied to meet two objectives. First, taxation is used to raise sufficient revenue to fund public spending without recourse to excessive public sector borrowing. Moyi and Ronge (2006),

Second, it is used to mobilize revenue in ways that are equitable and that minimize its disincentive effects on economic activities. Over time, Kenya has moved from being a low tax burden country to a high tax burden country yet the country faces the obvious need for more tax revenues to maintain public services. Given the high tax burden, prospects to raise additional revenue seem bleak. In addition, Kenyans are yet to accept a tax paying "culture". Much of the public policy interest in entrepreneurs has surrounded their putative roles as of jobs and new products. Government leaders in Kenya have wondered how to stimulate such activity, and many of their solutions have focused on tax policy. Specifically, it has been argued that tax policy should encourage entrepreneurs to invest in their businesses. Moyi and Ronge (2006), Government leaders have wondered how to stimulate such activity, and many of their solutions have focused on tax policy. Specifically, it has been argued that tax policy should encourage entrepreneurs to invest

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in their businesses. Such arguments influenced the economic stimulus Budgets, which contained a number of provisions favoring investment in small businesses, including a 50 percent exclusion of long-term capital gains from certain small business investments. At the same time, there are concerns that the high marginal tax rates embodied in existing law have discouraged investment by entrepreneurs. As one business economist opined after high-end personal income tax rates were raised in 1993, It means their cash flows will not grow as fast, and they will not have as much to plow back into their business.

Every company is expected to make and deliver to KRA a return together with the audited accounts, tax and capital allowance computation and statement of profits, not later than 6 months after the close of the company's accounting year. This study seeks to confirm if the 80:20 principle hold. Whether 80% of the revenues collected by KRA come from the large tax payers of turnover of over 750 million per annum or from the small scale investors. This study will identify the major contributors of taxation revenues that the government of Kenya receives, (Mwangi, 2007).

The general corporate income tax rate in Kenya is **30%**, with a branch of a foreign company taxed at 37.5%.Newly listed companies enjoy a reduced rate for 3-5 years following the year of listing, the rate (20%-27%) and period depending on the percentage of capital listed (must be more than 20%).Residence – A company or similar corporate entity is tax resident if incorporated under Kenyan law, if management and control of its affairs are exercised in Kenya or if the Minister of Finance declares the entity to be tax

resident in a notice published in the Kenya Gazette. Basis – Resident and nonresident corporate entities are subject to tax on all income accruing in or derived from Kenya.

The standard rate of VAT in Kenya is **16%**. Zero-rated supplies include the export of goods and taxable services and the supply or import of specified goods, particularly where used in agriculture, health and education, computer hardware and software, international air travel and supplies to licensed oil exploration companies. Exempt supplies include financial services provided by banks and most agricultural produce in its unprocessed or preserved state.

Kenya was a prime choice for foreign investors seeking to establish a presence in East Africa in the 1960s and 1970s, a combination of politically driven economic policies, government malfeasance, rampant corruption, substandard public services, and poor infrastructure has discouraged foreign direct investment (FDI) since the 1980s. Over the past 25 years, Kenya has been an underperformer in attracting FDI. Since 2003, Kenya's performance in attracting FDI has been marginally better at nearly U.S. $6 per U.S. $1,000 of GDP (U.S. $82 million in total). However, this pales in comparison to the FDI levels in neighboring countries with smaller economies. UNCTAD's 2008 World Investment Report describes Kenya as the East Africa region's least effective suitor in attracting FDI. The stock of FDI in Kenya stood at $183 million in 2008. After enjoying a banner year in 2007 attracting $729 million in FDI, Kenya only received $96 million in 2008 and $141 million in 2009. Recent press articles indicate that domestic investment now exceeds FDI and is making a significant impact on development in Kenya.

An analysis of Kenya's tax system carried out by the World Bank, International Finance Corporation, and audit firm PriceWaterhouseCoopers and released in early December 2008 judged Kenya's tax regime as the least friendly in East Africa. The report, Paying Taxes 2009, criticizes Kenya for not having a single government body responsible for all tax collections. Rather, Kenya's tax structure is marked by several government agencies, each with the authority to collect taxes at various times of the year. According to the study, Kenya has five different tax payment dates each month for VAT, corporate profits, withholding, social security, and health. Aside from the complexity of their tax system, many Kenyans complain taxes are too high. Consequently, tax evasion is increasing. Kenya is now witnessing growing numbers of unregistered or informal businesses known in local parlance as "jua kali." (Note: according to the government's 2010 Economic Survey, the informal sector engages approximately 80 percent of the workforce.) Because of country's multiple tax payment architecture and perceived high taxes, the report placed Kenya 158 out of 181 countries surveyed. The report did praise the Kenya Revenue Authority (KRA) for its effective tax collection and welcomed the government's future launch of an Integrated Tax Management System.

Kenyan firms carry the heaviest taxation burden in East Africa. Despite East African Community states levying a uniform 30 percent corporate income tax across the region, Kenyan firms have to contend with other levies whose ultimate impact raises the overall tax burden. Tax experts at PriceWaterhouseCoopers say the total corporate tax burden in Kenya is currently standing at 49.7 per cent compared to Tanzania's 45 percent, Uganda's 32 percent, and Rwanda's 31 percent. This additional burden has raised the cost of doing business in the region's biggest economy and reduced the competitiveness of its firms.

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Kenyan firms have to contend with 41 different tax payments cutting across 16 tax regimes, which take 417 man-hours to file as compared to the world's average of 31 tax payments and 286 hours, thus placing Kenya as one of the countries with the most complicated tax system in this part of the world, (Mwangi, 2007).

Branches of non-resident companies pay tax at the rate of 37.5 percent. The government generally defines taxable income to be income sourced in or from Kenya. Value added tax (VAT) is levied on goods imported into or manufactured in Kenya, and taxable services provided. The standard VAT rate is 16 percent. Discussion by the government on the VAT in early 2011 focused on reducing or eliminating exemptions to create a broader revenue base versus raising rates.

To ease inflationary pressures on the food basket, the government in mid-June 2008 reduced the duty on imported wheat from 35 percent to 10 percent and zero-rated 297,000 metric tons of imported corn. It also waived the 60 percent duty on 52,149 tons of imported wheat flour. The Minister of Agriculture also zero-rated the VAT on bread, wheat flour, milk, rice, and cornmeal. In keeping with its privatization strategy, the government announced in mid-December 2008 that it would sell its shares in 16 parastatals, including the National Bank of Kenya, the Kenya Electricity Generating Company (KenGen), the Kenya Pipeline Company, the Kenya Ports Authority, and various sugar, cement, dairy, wine, and meat processing firms. The government also put the Kenya Tourism Development Authority up for sale in 2009. To date, the government has not completed any of the sales.

The Companies Ordinance, the Partnership Act, the Foreign Investment Protection Act, and the Investment Promotion Act 2004 provide the legal framework for FDI. To attract investment, the Government of Kenya (GOK) enacted several reforms, which include abolishing export and import licensing, except for a few items listed in the Imports, Exports and Essential Supplies Act, rationalizing and reducing import tariffs, revoking all export duties and current account restrictions, freeing the Kenya shilling's exchange rate, allowing residents and non-residents to open foreign currency accounts with domestic banks, and removing restrictions on borrowing by foreign as well as domestic companies. In 2007, the GOK reviewed its investment policy and launched a private sector development strategy. A policy review by the United Nations Conference on Trade and Development (UNCTAD) is one component of this effort.

Kenya's investment code, articulated in the Investment Promotion Act of 2004, streamlined the administrative and legal procedures to create a more attractive investment climate. It came into force when published in 2005. The Investment Promotion Act objective is to attract and facilitate investment by assisting investors in obtaining the licenses necessary to invest and by providing other assistance and incentives. The Act replaced the government's Investment Promotion Center with the Kenya Investment Authority (KIA); however, the law also created some new barriers. It set the minimum foreign investment threshold at $500,000 and conditioned some benefits on obtaining an investment certificate from the KIA. The government later revised the minimum foreign investment threshold to $100,000 as an amendment to the Act. The minimum investment requirement is likely to deter foreign investment especially in the services sector, which

is normally not as capital intensive as the agriculture and manufacturing sectors. Another amendment made the foreign investment certificate requirement optional.

A legal notice published in June 2007 reduced the threshold for foreign ownership of listed companies on the Nairobi Stock Exchange (NSE) from 75 percent to 60 percent, which is a disincentive for foreign-owned firms interested in an NSE listing. Although the regulation is not applicable retroactively, it does compel companies with a foreign presence of more than 60 percent to downgrade foreign shareholding before applying to the NSE. The measure thus effectively bars these firms from selling excess shares to non-Kenyans. There is no discrimination against foreign investors in access to government-financed research. The government's export promotion programs do not distinguish between local and foreign-owned goods.

1.2 Statement of the problem

Studies of tax policy and corporate investment have been prominent in public finance and macroeconomic research, especially in developed countries. Firms choose the mix of finance among internal funds, debt and new equity independently, and the availability of finance does not limit investment. The implication for tax policy is that the marginal tax rate on returns from a new project matters for investment. However, for firms that face imperfect markets for external finance, the cost of internal finance differs substantially from external finance; for some firms, their investment depends on available cash flow. The amount of earnings devoted to taxes and therefore the average tax rate of return from existing projects matters for investment for these firms, possibly along with incentive

effects of marginal tax rates. A lot of work has been done on tax policy, financing and investment decisions in developed countries, Hassett and Hubbard,(1996).

While there are studies done on taxation in Kenya which include that of Mwangi (2007) and Moyi and Ronge (2006), none of these specifically focused on establishing if there is a link between amount taxation expenses and level of investment.

This study is aimed at finding out if there is a relationship between taxation expense and level of investment for the quoted companies in Kenya.

1.3 Objectives of the study.

The objective of the study is to evaluate the relationship between tax paid and level of investment by quoted companies in Kenya.

1.4 Importance of the study

This study will be of interest particularly to the following:

(i) The government and investors

Tax policies are normally used to stimulate investment and can be varied depending on how an economy of a country is doing. The government can thus stimulate the economy by using tax policies in place. This would in turn enable companies to make investment choices depending on how appropriate the tax policies are.

(ii) Academicians.

The study contributes to the existing literature in two ways. First, it uses firm level data to study the link between tax revenue and level of investment. Second, it provides evidence from Kenya which is a developing country.

The study will increase their knowledge on sources of revenues and level of investment in Kenya. This study is likely to set pace for studies in the area and as a result may prove to be of interest to researchers and academicians.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Taxation is a major instrument of economic policy. Not only does it transfer economic resources from the private sector to the public sector, but it also distributes the cost of government equitably among income classes and among people in approximately the same economic circumstances (Pachman, 1987). Through economic activity, investors take on risk, but also get a return from risk-taking. Taxation affects investors' capital gains and therefore the investment behavior of investors. The corporation income tax, for one, reduces yield and discourages investment by investors. In 1967, Hall and Jorgenson provided a theoretical model and an empirical analysis that showed that tax policy is highly effective in changing investment expenditures, and has had important effects on the composition of investment. Abel (1982) consolidated the tax policy analysis of Hall and Jorgenson (1967; hereafter HJ) into a dynamic optimizing model and showed that a temporary investment tax credit offers a larger stimulus effect on investment than a permanent tax credit. Gilchrist, S and Himmelberg, C.P (1995):

In 1995, Gravelle analyzed issues in the modern corporate income tax debate, such as who pays corporate tax, what role it plays in the progressivity of the tax system, how distortions are linked to the tax relative to its yield, and how the tax can be replaced. In 1996, Bond, Devereux, and Gammie explained why the corporation tax discouraged investment and discussed how this tax bias against corporation investment can best be eliminated. Hassett and Hubbard (1996)

Scholes and Scholes) argue that tax rules jointly influence investment decisions and organizational form.

Numerous empirical studies have explored the impact of taxation on corporate financing decisions in the major industrial countries. Some are concerned directly with tax policy, for example: MacKie-Mason (1990), Shum (1996) and Graham (1999). MacKie-Mason (1990) studied the tax effect on corporate financing decisions and provided evidence of substantial tax effect on the choice between debt and equity. He concluded that changes in the marginal tax rate for any firm should affect financing decisions. When already exhausted (with loss carry forwards) or with a high probability of facing a zero tax rate, a firm with high tax shield is less likely to finance with debt. The reason is that tax shields lower the effective marginal tax rate on interest deduction. Graham (1999) concluded that in general, taxes do affect corporate financial decisions, but the magnitude of the effect is mostly "not large".

On the other hand, DeAngelo and Masulis (1980) show that there are other alternative tax shields such as depreciation, research and development expenses, investment deductions, etc., that could substitute the fiscal role of debt. Empirically, this substitution determinants of the capital structure of Ghanaian firms 11 effect is difficult to measure, as finding an accurate proxy for tax reduction that excludes the effect of economic depreciation and expenses is tedious (Titman and Wessels, 1998).

DAMMON and Senbet (1988) argue that there is also an income effect when investment decisions are made simultaneously with financing decisions. They suggest that increases in allowable investment-related tax shields due to changes in the corporate tax code are not necessarily associated with reduction in leverage at the individual firm level when

investment is allowed to adjust optimally. They explain that the effect of such an increase depends critically on the trade off between the "substitution effect" advanced by DeAngelo and Masulis (1980) and the "income effect" associated with an increase in optimal investment.

2.2 Kalecki's Theory of Taxation

Kalecki studied the effects of three taxes—a tax imposed on wage goods, a tax on capitalist incomes, and a capital tax—assuming that the proceeds of the tax were spent on behalf of the unemployed. The tax imposed on wage goods had no effect. The demand of the dole receivers boosted spending as a whole, but all the producers raised their prices by a sum equal to the tax, having no fears about losing market shares since "the tax is reckoned *ad valorem* at a constant rate for all kinds of wage goods" (Kalecki [1937] 1990, 320). In short, the tax did not bring about an increase in production, but only in the prices of the goods taxed, and a shift of purchasing power from those consuming wage goods to the dole receivers.

The effects of an income tax on national income and employment were positive in the first instance. Kalecki demonstrated that in the face of a tax levied on income rather than goods, producers were disinclined to off load the tax on prices, since in this case there was a real risk of losing market shares. Thus the increased demand coming from dole receivers was satisfied by increasing production. In consequence, the profits made by the capitalists as a class rose by an amount that, as Kalecki demonstrated, equaled the reduction in income caused by the tax burden. This thesis conceived by Kalecki found consummate expression only some years later, when Trygve Haavelmo (1945) proposed a formalized version of it, and it found its way into economic science as the "multiplier

theorem" of Haavelmo: if there is a sufficient amount of idle manpower and resources, public "expenditures covered by taxes will raise income (and employment)by the amount of the tax" (312). This effect is in addition to the demand of the private sector of the economy and independent of the numerical value of the propensity to consume (313–14). Haavelmo indicated as partially\anticipating his theorem the studies published between 1943 and 1945 by Samuelson, Hansen and Perloff, Kaldor, and Wallich, but he did not go back to Kalecki's 1937 article, which was, after all, responsible for the original formulation. Kalecki added that the positive effects of the tax might, in part at least, be hindered by the fact that the lenders were able to shift the tax onto the entrepreneurs, with the result that the net profitability of investment was lowered and the inducement to invest was depressed.

The capital tax did not come up against this limitation (Kalecki [1937]1990, 324–25). The increased spending of the dole receivers generated the same positive effects to be seen with the capitalists' income tax, but not the negative effects: the capital tax was not susceptible to being shifted from the lenders to the entrepreneurs, since it was levied on all sorts of assets. "Indeed, if somebody borrows money and builds a factory, he does not increase his own capital by this action and does not pay a greater capital tax. And if he ventures his own means, he also pays the same taxes he would if he abstained from investment. Thus the net profitability of investment is unaffected by capital taxation" (325). Kalecki came to the conclusion that the capital tax proved a perfectly valid means from the strictly economic point of view to increase national income and employment. It showed "all the merits of financing the state expenditure by borrowing, but it is distinguished from borrowing by the advantage of the state not becoming indebted"

(325). Its drawback lay elsewhere: it was politically inadmissible in a capitalist economy, where it was perceived as striking at the very principle of private property, erroneous as the impression may be. It could be levied only if the fundamental principles upon which capitalistic production rests were susceptible of being modified.

2.3 Theories of Investment

The empirical economic literature has its early roots in the work of Aftalian (1909), Clark (1917), and Fisher (1930). Aftalian and Clark observed that business investment is highly correlated with changes in business output. They provided support for the early acceleration school. However, Fisher's104 International Research Journal of Finance and Economics - Issue 16 (2008) neoclassical school argued for the importance of marginal conditions. The literature subsequently divided into two approaches: the accelerator model and the neoclassical model. The accelerator model makes investment a linear function of changes in output. A more general form of the accelerator model is the flexible accelerator model. The assumption behind this model is that the larger the gap between the existing capital stock and the desired capital stock, the greater the firm's rate of investment. The firm closes a fraction of the gap between the desired and the actual capital stock in each period. The neoclassical model relates investment to the user cost of capital. One side argued that the accelerator model performed well empirically and it should be adopted as the standard model, while the other side argued in favor of the neoclassical model. While the neoclassical school had the theoretical high ground, empirical implementation of the model to aggregate data has been disappointing (Hassett and Hubbard (1996)).

However, time series evidence has always revealed that lags of output are highly correlated with investment, and interest rates have provided limited additional explanatory power. Some observers (such as Clark (1993)), in recent times have argued that tax policy does not significantly affect investment, and the argument inevitably harkens back to the accelerationist debates. Motivated by the fact that the simplest neoclassical models failed to explain investment fluctuations, substantial energy was devoted to extending these models to incorporate more realistic assumptions in the 1970s and early 1980s.

2.4 The Neoclassical Theory of Investment

Jorgenson (1963, 1971) and others formulated the neoclassical model. The neoclassical theory of investment starts from a firm's optimization behavior. The objective of the firm is to maximize the present discounted value of net cash flows subject to the technological constraints summarized by the production function. The earlier version of the neoclassical approach developed by Jorgenson derives the optimal capital stock under constant returns to scale and exogenously given output. To make the rate of investment determinate, the model is completed by a distributed lag function for net investment. Under the neoclassical model, the optimal capital stock is proportional to output and user cost of capital. The user cost of capital, in turn, depends on the price of capital goods, the real rate of interest, the rate of depreciation and the tax structure.

This earlier versions of the neoclassical model has a number of drawbacks. The assumption of exogenously given output (which makes the optimal capital stock determinate) is inconsistent with perfect competition. This theory itself cannot determine the rate of investment; rather it relies on an adhoc stock adjustment mechanism.

Substantial energy was devoted to extending these models to incorporate more realistic assumptions. The cost of adjusting the capital stock was incorporated because investment is forward-looking, and based upon rational expectations of future variables. Because firms based their expectations of future variables in part on their observations of the past, researchers identified a link between lagged variables and current investment. Some adjustment costs are introduced implicitly through the distributed lag function for investment. They introduced the cost of installing new investment goods in the firm's optimization problem. In this function, capital stock is given to the firm at each moment of time because of the adjustment costs in changing capital stock. (Hassett and Hubbard (1996).

What the firm can control at each moment of time is the rate of investment, not the stock of capital. Correlation of past output growth and future fundamentals could be used to rationalize a strong correlation between current investment and past values of the growth of output. However, when applied to study time series movement of investment at the aggregate level, the new models proved disappointing. Additional variables that are meant to capture the marginal cost or return to investment seemed to be of little use, over and above output, in predicting investment. Moreover, the structural parameter estimates seemed to be widely implausible (Hassett and Hubbard (1996)).Nevertheless, moving to firm or industry-level panel data would help avoid these problems and allow a researcher to exploit the cross-sectional variation in investment opportunities and in the user cost of capital.

2.5 Empirical Studies

A panel consisting of over 62,100 federal personal income tax returns for taxpayers who filed in both 1985 and 1988. This choice of years is important, because they bracket 1986. In that year, President Reagan signed into law the landmark Tax Reform Act of 1986 (TRA86), which, among other things, mandated large tax decreases for individuals in upper income brackets. Thus, our data set allows us to observe the same entrepreneurs before and after the tax reform, and we can make an assessment on how it changed their behavior.

The tax returns, which are on tape, contain detailed information on taxpayers' income and deductions taken from the Form 1040. Our focus is on sole proprietors, who file a Schedule C. While sole proprietors do not report annual investment on their Schedule C, they do report depreciation deductions. Moreover, using the detailed information regarding the computation of these deductions reported on Form 4562 it is possible to identify which of these deductions are associated with capital purchased during the year under consideration.

A Preliminary Look at the Data in Table 1 focuses on individuals who were sole proprietors in both 1985 and 1988. Each entry in the matrix compares combinations of filing status and investment decisions in 1985 (rows) with corresponding measures for 1988 (columns). Consider, for example, the entry in the upper left hand cell. It indicates that 1,705 sole proprietors made no investment in either 1985 or 1988, and this constitutes 78.8 percent of all the sole proprietors who made no investment in 1985. (The other 21.2 percent made investments in 1988.) Fifty-four percent of those who invested in

1985 also did so in 1988. Thus, there appears to be substantial persistence in the propensity to invest. Another critical implication of this panel is that only a relatively small proportion of the sole proprietors make any capital investments. This is consistent with earlier finding using different data sets which suggest that most small enterprises have no capital at all.

Multivariate Analysis suggests that investment decisions depend on the user cost of capital, of which marginal tax rates are only one component. TRA86 affected not only marginal tax rates, but also depreciation allowances and the investment tax credits. Further, variables other than marginal tax rates might influence an entrepreneur's propensity to invest, and some of these could be correlated with marginal tax rates. What other variables do we take into account? Basically, we are constrained to information that is included on tax returns (or that can be easily found given the individual's social security number). These include the individuals age, marital status, and number of dependents. All of these could be related to his attitudes toward risk. We also have a measure of assets (capital income), which should affect investment decisions in the presence of liquidity constraints. Finally, we have the principle business codes, so we can control for industrial classification. These are intended to take into account the fact that the capital-intensity of the production technology differs across industries. On the basis of our estimates, we did the following simulations 1988 marginal tax rate and raised it by 5 percentage points. According to our estimates, this would have reduced the average probability of investing from 0.335 to 0.300, a decline of 10.4 percent. We also studied the amount of investment as well as the probability of doing investment. The same five percentage point increase in marginal tax rates would lead to a 9.9 percent decline in

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mean investment expenditures. In short, our estimates imply that changes in the user cost of capital induced by increases in marginal tax rates have a substantial impact on entrepreneurs investment behavior.

These policies often take the form of special breaks for capital gains on stocks in small businesses, although other policies also exist. Typically, these policies are very narrow and very complicated they have to be, because otherwise it is possible for large companies to create scams. (For example, they could spin off subsidiaries and call them small businesses.) I sometimes think that the main beneficiaries of these policies are the lawyers who help the relevant businesses configure their operations so as to qualify for the tax breaks. Further, most micro-businesses have not even gotten to the stage where they have issued stock. They are financed from the savings of the entrepreneur and his or her family. If our results are correct, it suggests that complicated, narrowly targeted policies that leave out micro-enterprises are inferior to a simpler policy that would have many other benefits as well just reduce marginal tax rates on everyone.

2.6 Tax and Investment

The models presented in the preceding sections are estimated and analyzed for the study period. A manufacturing firm is included in the sample if the financial and market information necessary to estimate the models is available in the annual reports at the year end and in the Nigerian Stock Exchange (NSE) daily official lists for the period 1984 to 2000. The study estimates model (17) and its variants using ordinary least squares with fixed effect and year dummies. Following Fazzari, Hubbard and Perterson (1988), the study also assumes firm heterogeneity and estimates equation (17) and its variants with sectoral dummies and partitions the data on the basis of size and age. The study then

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estimates equation (17) for each class to understand the channel through which tax policy influences investment.

Data used in this study are mainly from secondary sources, namely the NSE fact books of 1989/90 to 2001, annual reports of companies from 1984 to 2000, NSE daily official lists for the first and the last day of trading in each of the months covered in the study. NSE is a reliable source of data of quoted companies because the companies are mandatory required to submit their financial reports to the NSE quarterly and biannually, and so their financial statements and information on their capital market activities are publicly available. The sample contains 86 manufacturing companies from 14 sectors quoted on the first and second tier securities market of the NSE between 1984 and 2000. At present, 173 companies are listed on the first tier segment of the market and 14 companies on the second.

I is investment expenditure, K is the beginning of period capital stock, Q is Tobin's q, CF is cash flow, ATR is average profit tax rates, MTR is marginal tax rates, SG is sales growth, INT is interest expense, PAT is profit after tax, COC is the cost of capital, DS is the debt shield. The mean of q is 1.182, sales increased at the rate of 48.2% on average and the average tax rate is about 15.89%. The tax shield in the form of debt financing is generally low at 9.40% on average. The results of the model estimated are presented below. Table 4.2 shows the results of the effects of q and taxes on fixed investment of firms. Although the analysis started from 1984, because of the computation of lags of regression variables, the first four years of the firms' observations were not included in the regression.. The coefficients of the year dummies are not significant in most of the equations, with the exception of the dummy for 1990, 1991 and 1996. Panel B was

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estimated with fixed effects and group dummy variables. The result revealed a positive relationship and significant cash flow effect with investment.

The adjusted R2 is between 40% and 43%, which is quite high. This means that 43% variation investment is explained by the regressors. With the inclusion of average and marginal tax rates, the cash flow effect is still significant, while average and marginal tax rates are insignificant. Lags of interest expenses, sales growth rates, cost of capital and debt capital were introduced into the model. Interest expenses and marginal tax rates have negative significant effects on investment. Costs of capital and debt to capital structure have significant positive coefficients. The coefficient of q is positive but weak. The results show from the F-statistics that both the regressors and the fixed effect are jointly significant.

This study contributes to the current effort in the literature to gain a better understanding of the links between taxes, finance and firms' investment spending and provides additional evidence to negate the traditional dichotomy between real and financing decisions. The study finds a positive relationship between q adjusted for taxes, cash flow and cost of capital, and firms' fixed investment. It also establishes a negative marginal tax rate and interest expenses effect on firms' investment and submits that the link between investment and tax policy varies across sectors. Given the link between tax policy and real investment of firms, policy makers need to give due consideration to taking the necessary steps to boost firms' real investment. These steps include the following: Lowering the profit tax for all firms from 30 percent to 20 percent. This reduction will effectively stimulate fixed investment of firms. Increasing investment tax credit and initial capital allowance rates on industrial plant and machinery.

2.7 Local studies

In Kenya, the first National Baseline Survey of 1993 identified 910,000 micro and small enterprises (excluding agro-based activity) employing about 2.0 million people. The second National Baseline Survey of 1999 identified 1.3 million enterprises with about 2.4 million people involved. one of the main challenges of the TMP is the large informal sector. The MSE sector in Kenya is large and growing in numbers. This sector requires treatment other than that provided by refined methods of tax administration and provisions in the revenue code.

Small producers are notoriously difficult to tax and subsistence agriculture does not generate large surpluses. An experiment with presumption tax (abolished in 1993 and re-introduced in 1995) was a particularly notable attempt to formalize parts of the informal agricultural sector (Cheeseman and Griffins, 2005). Further attempts focused on the use of advance tax and tax on rental incomes. However, given the invisibility of the informal sector and scarce empirical work to understand tax-relevant information, the presumption tax approach and the advance tax approaches failed to achieve the intended objectives. It is not difficult to understand why they could not work. If the Government does not know about the income received by farmers, farm workers and small-scale entrepreneurs, it can have no prospects of taxing it. This creates the need for a proper income survey to determine the optimal tax yield and the ability to pay. The need to tax the MSE sector is therefore obvious. It arises from the need to encourage compliance; de-institutionalize tax evasion as normal part of doing business; enhance credibility of the tax system and theoretically embed tax equity; encourage the sector to carry its fiscal responsibility, create dis-incentives for the formal sector to sub-divide

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into smaller business entities below tax thresholds and thus erode the realized tax base and endanger internal balance which goes to exacerbate economic distortions inherent in taxation.

Simplifying the registration process and reducing exposure to registration red tape will therefore be key towards this end. Consequently, there is need to design a special/simplified registration/formality package for the sector that takes into account the local peculiarities. Such a system should, in addition to providing the firms with legal protection, develop a tax paying culture, devoid of bureaucracy, amongst the participants; introduce good business practices and encourage existing businesses to grow and new businesses to be started by supporting a one-stop-shop approach to registration and tax administration.

Mwangi, (2007) carried out a study on Factors Influencing Financial Innovation of Companies listed at Nairobi Stock Exchange. The objective of the study was to explain the macro-environmental and micro-environmental factors influencing financial innovation in Kenya's securities market including taxation policies of government.

The population used in this study was 48 companies listed on the Nairobi Stock Exchange in 2005. An exploratory survey was conducted between September 2005 and March 2006, of which 31 respondents was obtained.

The data was analyzed using descriptive statistics. Semi-structured questionnaire, drop and pick method was employed. Data in this study was summarized and presented in forms of tables, percentages, frequencies, mean scores and standard deviations.

Based on regulatory factor, the finding concluded that Kenyan laws protecting investors was the major factor influencing financial innovation which included taxation policies of

government. This result is similar to the finding by Frame W.S and White L.J. (2002). Further, the research finding showed that unstable forex rates were the most important factor influencing financial innovation among market volatility factors.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methods that were used in collection of data to answer the research questions. It is divided into research design, population sample and data analysis.

3.2 Research Design

The study seeks to determine the amount of tax revenue received by KRA from the different investment companies in Kenya. A sample survey is the most appropriate design due to the large number of companies and limitation. The choice of a survey design is to provide an avenue of relating description, explanations and predictions in a systematic manner. It is also the best design that defines the domain of generalizability (Frankfat and Nacmias, 1996) similar studies have been carried out using this design and the results was satisfactory (Ndegwa, 2003 and Odemo, 2003).

3.3 Population

Mugenda and Mugenda (2003), describes a population as the entire group of people, individuals, events or objects that have a common observable characteristics. The population of this study was all companies listed in the Nairobi Stock Exchange. The Nairobi Stock Exchange offers good choice due to the wide variety of industries represented in the stock exchange for example agriculture, commercial and services, financial and investment and industrial and allied. In addition the NSE requires that firms

publish their annual reports with reasonable disclosure.Hence, this provides a good data bank for retrieving historical data for financial statements.

3.4 Data Collection

The study entailed use of secondary data, which will be obtained from company annual tax returns submitted to KRA. Where data is not available from KRA, the researcher referred to financial statements published by companies under study. Such data included balance sheet, profit and loss account and cash flow statement.

3.5 Data Analysis

The data was analyzed using descriptive statistics. The data was coded and entered into a spreadsheet and analyzed using SPSS (statistical package for social sciences) and excel packages. The data was summarized using tables, percentages, means and frequency distributions.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents analysis and findings of the research. The findings are represented in tables and grouped according to the various industries represented at the Nairobi Stock Exchange. These are the Agriculture sector, Commercial and Services, financial services and Industrial and Allied sector.

4.2 Summary Statistics of data

This section illustrates the summary of statistics of the companies involved in the study.

Table 4.1: Means

Tax paid	2006 '000	2007 '000	2008 '000	2009 '000	2010 '000	Average '000
Industry and allied	198,729	543,297	619,694	664,280	649,137	**535,027**
Commercial and services	43,257	199,464	278,116	235,040	173,422	**185,860**
Agriculture industry	21,590	78,338	192,777	207,979	342,321	**168,601**
Financial service	102,337	232,574	505,206	473,246	847,433	**432,159**
Investment						
Industry and allied	157,901	265,699	38,156	249,169	1,274,528	**397,091**
Commercial and services	178,398	28,293	17,859	182,435	298,213	**269,065**
Agriculture industry	27,826	34,233	36,606	55,863	107,564	**96,729**
Financial service	19,424	243,482	117,946	559,214	2,475,416	**367,757**

Source: Research data

From the above table we can see that companies quoted on the NSE have continued to pay high amount of taxes more than investment they have made. We can see that the industry and allied sector leads in tax contribution to KRA for all the years, given the nature of number of companies there and the fact that it has many companies there. We can also see that tax payment has increased over the year with he industry and allied sector peaking in 2010, commercial and services sector peaking in 2008, agriculture industry peaking in 2010 and financial services peaking in 2010.

On the other hand we can see that investment over the last 5 years is highest with Industrial and allied sector followed by the financial service sector. Commercial services sector follows up on investment and Agricultural sector comes in last. In the same case we can see that 2008 recorded the lowest investment, caused mainly by political problems in the country though growth trends in investment picked up in the year 2009 and climaxed in 2010.

4.3 Regression Statistics

Regression tests carried out are illustrated in the tables that follow.

Table 4.2 Regression table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Industry and allied	.336[a]	.113	-.183	542378.032
Commercial and services	.432[a]	.187	-.084	122856.657
Agriculture industry	.900[a]	.809	.745	16422.506
Financial service	.858[a]	.736	.648	606922.684

Source: Research data

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The coefficient of determination (R square) measures the proportion of variability in a data set that is accounted for by a statistical model. In this case it can be seen that there is relatively strong relationship between tax paid and investment made. This is especially pronounced in the financial sector and agricultural sector than in the commercial and services sector as well as in the industry and allied sector.

This can be explained from the fact that the tax burden in the agricultural sector is not evenly spread. Agricultural companies in Kenya are required to pay tax in two installments in the year. They are required to pay 25% of the income tax in October and the rest 75% in January the following year, this would in fact affect their investment decision to a great extent since the burden of tax denies them liquid cash for investment.

For the financial sector, the regulations affecting their industry would affect its investment strategy. As per new directives, CBK set specific Bank Capital Requirements by 2012 as presented below;

Table 4.3: Bank Capital Requirements by 2012

Deadline	Minimum capital requirement (Ksh - million)
Current	250
31-Dec-09	350
31-Dec-10	500
31-Dec-11	700
31-Dec-12	1,000

Source: Central Bank of Kenya (2011)

Thus the increase in investment for the financial sector might not be directly linked to taxation. For the industry and allied sector as well as commercial and services sector, majority of the companies in this sector are subsidiaries of multinationals which largely

dictate investment policies and inject capital as required and this might be the reason why there is weak relationship between tax and investment.

Standard error of the estimate is simply the deviation from the mean, it can bee seen that the financial sector and industry and allied sector are the ones that had the highest variation. This can be explained from the fact that these two comprise of companies of varied nature in terms of size. For example in the industry and allied sector there are large multinationals like East African Breweries Limited compared with a small company like BOC Kenya limited.

4.4 Analysis of Variance (ANOVA)

This section brings out the analysis of variance for the companies involved in the study. The results are tabulated below:

Table 4.4 Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
Industry and allied	Regression	1.126E11	1	1.126E11	.383	.480
	Residual	8.825E11	3	2.942E11		
	Total	9.951E11	4			
Commercial and services	Regression	1.042E10	1	1.042E10	.690	.467
	Residual	4.528E10	3	1.509E10		
	Total	5.570E10	4			
Agriculture industry	Regression	3.429E9	1	3.429E9	12.715	.038
	Residual	8.091E8	3	2.697E8		
	Total	4.238E9	4			
Financial sector	Regression	3.076E12	1	3.076E12	8.350	.063
	Residual	1.105E12	3	3.684E11		
	Total	4.181E12	4			

Source: Research data

Analysis of variance (ANOVA) is a method of testing the null hypothesis that several group means are equal in the population, by comparing the sample variance estimated from the group means to that estimated within the groups. Sum of squares measures the variability of a data set. In this case we see that investment was more variable in the financial sector, followed by those in the industry and allied group while commercial and services sector followed next with the agricultural industry coming in last. This is still explained by the fact that varying nature of the companies in the specific sector. For example in the financial sector, there are some which are multinationals like Barclays bank, those locally owned like Equity bank and those with strong government control like National bank of Kenya.

F statistic measures if the regression model fits well. In general, F statistics establish that there is or is not a difference between group means, and means plots suggest where the difference may lie. In this case it is used to test that the hypothesis that the means of several normally distributed populations, all having the same standard deviation, are equal. The results can be compared to the critical F-test values and at $F_{0.5(1, 3)}$ the value is 10.128. Thus for all the sectors we can accept the null hypothesis that tax paid affects level of investment, with the exception of the agricultural sector. Nevertheless pegging the significance level at 0.5 we see that in all the industries listed at the NSE, investment decisions are affected by tax paid.

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4.6 Coefficients

This section provides an estimate of the coefficient of tax paid to investments assuming linearity of the two. The results are as below:

Table 4.5 Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Industry and allied	(Constant)	-66296.580	787399.647		-.084	.438
	Tax	.866	1.400	.336	.619	.480
Commercial and services	(Constant)	247741.173	139699.385		1.773	.174
	Tax	-.574	.691	-.432	-.831	.467
Agriculture industry	(Constant)	12789.477	13320.936		.960	.408
	Tax	.235	.066	.900	3.566	.038
Financial sector	(Constant)	-640101.277	532307.267		-1.203	.315
	Tax	3.062	1.060	.858	2.890	.063

Source: Research data

The t-test determines the strength of the relationship between investment made and tax paid. In this case we can that this relationship is stronger in the agricultural sector, followed by the financial sector, followed by the industry and allied sector and finally the commercial and services sector. This is still attributed to the factors discussed above under the coefficient of determination.

The unstandardized coefficients are the coefficients of the estimated regression model. With this information, we can be able to write the following equations:

For the industrial and allied sector:

$I = 0.866T - 66,296.580 + 1.400e$

Where I = Investment T=Tax paid   e = error

For commercial and services sector:

$$I = -0.574T + 247{,}741.173 + 0.691e$$

For the agricultural sector:

$$I = 0.235T + 12{,}789.477 + 0.066e$$

For the financial sector:

$$I = 3.062T + -640{,}101.277 + 1.060e$$

The overall equation would thus be:

$$I = 3.589T + 834{,}335.347 + 3.216e$$

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected the foregoing discussions, conclusions and recommendations were made. The response was based on the objectives of the study.

5.2 Summary of Findings and Conclusions

5.2.1 Summary of Findings

The objectives of the study were to evaluate the relationship between tax paid and level of investment by quoted companies in Kenya.

In the various industry groups there had been a general increase in the amount of tax paid as well as investment. However due to the political violence in 2008, there had been a slight drop in the tax paid based mainly because of decline in profits, while also for investment the cautious approach companies took sought a stable political environment. This was further influenced by the large number of subsidiaries of multinationals which withheld their investment in the country.

In carrying regression tests, it was found out there is relatively strong relationship between tax paid and investment made especially pronounced in the financial sector and agricultural sector. The reason advanced was that the tax burden in the agricultural sector was not evenly spread. Agricultural companies in Kenya are required to pay tax in two installments in the year. They are required to pay 25% of the income tax in October and the rest 75% in January the following year, this would in fact affect their investment

decision to a great extent since the burden of tax is not evenly distributed and thus cannot plan for their investments.

For the financial sector, the regulations affecting their industry would affect its investment strategy. As per new directives, CBK set specific Bank Capital Requirements by 2012 that the minimum capital for banks should be Kshs 1 billion. In anticipation to this banks had to increase inject new capital and this would directly go to their investments. Even those which had attained the minimum capital as required by CBK, they would go ahead to increase to maintain their competitive strategy.

While carrying out test of significance and t-tests the researcher found out that, had to accept the null hypothesis that tax paid would affect level of investment. From the coefficients it was seen that there is a positive relationship between tax paid except for one industry, that is the commercial and services sector. This can be explained this way, the more tax a company has paid, the more profit it has made and thus can make greater investments. However, when a company pays a lot of tax, then it reduces its retained earnings and thus limits the amount of investment.

5.2.2 Conclusion

Tax policies are normally used to stimulate investment and can be varied depending on how an economy of a country is doing. The government can thus stimulate the economy by using tax policies in place. This would in turn enable companies to make investment choices depending on how appropriate the tax policies are.

For listed companies, a big chunk of their taxes comes from corporation taxes which are fixed at 30% for resident companies and 37.5% for nonresident companies. Thus

companies would spend a big proportion of their profits to pay taxes and some to owners as dividends and later on be left with a paltry amount for investment. It can also be argued that those companies that make huge profits also have a lot of retained earnings which they can use to make investments. For a company that manufactures strictly for exports in the EPZ zone is usually granted a tax holiday for the first ten years in operation. In this case the amount of money that could have been used to pay corporate taxes is usually used for investment purposes.

5.3 Limitations of the Study

Care must be taken to generalize the results of this study as there were some limitations. The use of regression analysis also means that there is an assumption of linearity with the various models which may not be the case.

5.4 Recommendation for Further Study

The current research focused on the firms quoted. Given that the stock exchange comprises of a number of companies in different industries, future studies should consider a specific sector such as the manufacturing industry with a sample of companies in that sector without regard whether they are listed or not.

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APPENDICES

APPENDIX I

Table 4.1: Means

Tax paid	2006 '000	2007 '000	2008 '000	2009 '000	2010 '000	Average '000
Industry and allied	198,729	543,297	619,694	664,280	649,137	**535,027**
Commercial and services	43,257	199,464	278,116	235,040	173,422	**185,860**
Agriculture industry	21,590	78,338	192,777	207,979	342,321	**168,601**
Financial service	102,337	232,574	505,206	473,246	847,433	**432,159**
Investment						
Industry and allied	157,901	265,699	38,156	249,169	1,274,528	**397,091**
Commercial and services	178,398	28,293	17,859	182,435	298,213	**269,065**
Agriculture industry	27,826	34,233	36,606	55,863	107,564	**96,729**
Financial service	19,424	243,482	117,946	559,214	2,475,416	**367,757**

Source: Own Construction (2011)

Table 4.2 Regression table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Industry and allied	.336[a]	.113	-.183	542378.032
Commercial and services	.432[a]	.187	-.084	122856.657
Agriculture industry	.900[a]	.809	.745	16422.506
Financial service	.858[a]	.736	.648	606922.684

Source: Own Construction (2011)

Table 4.3: Bank Capital Requirements by 2012

Deadline	Minimum capital requirement (Ksh - million)
Current	250
31-Dec-09	350
31-Dec-10	500
31-Dec-11	700
31-Dec-12	1,000

Source: Central Bank of Kenya (2011)

APPENDIX III

Table 4.4 Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
Industry and allied	Regression	1.126E11	1	1.126E11	.383	.480
	Residual	8.825E11	3	2.942E11		
	Total	9.951E11	4			
Commercial and services	Regression	1.042E10	1	1.042E10	.690	.467
	Residual	4.528E10	3	1.509E10		
	Total	5.570E10	4			
Agriculture industry	Regression	3.429E9	1	3.429E9	12.715	.038
	Residual	8.091E8	3	2.697E8		
	Total	4.238E9	4			
Financial sector	Regression	3.076E12	1	3.076E12	8.350	.063
	Residual	1.105E12	3	3.684E11		
	Total	4.181E12	4			

Source: Own Construction (2011)

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Table 4.5 Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Industry and allied	(Constant)	-66296.580	787399.647		-.084	.438
	Tax	.866	1.400	.336	.619	.480
Commercial and services	(Constant)	247741.173	139699.385		1.773	.174
	Tax	-.574	.691	-.432	-.831	.467
Agriculture industry	(Constant)	12789.477	13320.936		.960	.408
	Tax	.235	.066	.900	3.566	.038
Financial sector	(Constant)	-640101.277	532307.267		-1.203	.315
	Tax	3.062	1.060	.858	2.890	.063

Source: Own Construction (2011)