EFFECT OF CORPORATE TAX PLANNING ON FINANCIAL PERFORMANCE OF FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE, KENYA

Thuita, J.M.[1], Simiyu, J.M.[1] and Mwangi, P.G.[2]
[1]Department of Management Science, Chuka University, P. O. Box 109-60400, Chuka, Kenya
[2]Department of Business Administration, Chuka University, P. O. Box 109-60400, Chuka, Kenya
Email: jthuita@chuka.ac.ke, janemumbithuita@gmail.com, jsimiyu2002@yahoo.com, pgachambi@chuka.ac.ke, gachambip@yahoo.com

ABSTRACT
Corporate tax planning relates to the utilization of the loopholes in the tax system to reduce tax liability. According to the Tax Justice Network-Africa, Kenya's corporate sector leads Africa in tax avoidance with the tax avoided each year being estimated at Ksh 106 billion. However, despite enormous tax savings generated through tax planning, there exists mixed evidence about the effect of corporate tax planning on financial performance of firms. This study therefore sought to evaluate the effect of corporate tax planning on financial performance of firms listed at the Nairobi Securities Exchange. The specific objectives were to analyze the effect of corporate tax compliance, capital investment allowances and debt tax shield on the financial performance of firms listed at the Nairobi Securities Exchange. The study used a casual research design to establish the effect of corporate tax planning on financial performance of firms. The target population was the 64 firms listed at the NSE and purposive sampling was used to select 55 firms that had complete data and that were consistently listed within the period of study 2010 to 2015. Secondary data was collected using a checklist from the NSE website, individual company's website and from NSE reports. A multiple regression analysis was used to analyze the cause-effect relationship between dependent variable and independent variables. Data analysis was done with aid of SPSS version 21.0. T-test and F-test were used to test the significance of regression coefficients and overall significance of the model respectively at 5% significance level. The study established statistically significant positive effect of tax compliance and capital investment allowances on return on assets with coefficients of 0.238.and 0.076, and P-values of 0.009< 0.05 and 0.042<0.05 respectively. Further, it was established that debt tax shield had a negative significant effect on return on assets with a coefficient of -0.142 and p-value of 0.038<0.05. The study concluded that corporate tax planning has a significant effect on financial performance of NSE listed firms and recommends that firms should increase their tax compliance, increase expenditure that qualifies for capital investment allowances and reduce use of debt as the cost of debt may have negative effect on return on assets. The findings will be importance to policy makers, including Nairobi Securities Exchange, capital market authority and national treasury in formulating policies on tax planning activities, and will guide management in deciding their tax planning practices and benefits to expect.
Keywords: Tax, performance, corporate tax compliance, capital investment allowances, debt tax shield.

INTRODUCTION

Tax is a compulsory contribution to state revenue and is levied by the government on individual's income, business profits, value added to the cost of some goods, services, and transactions to raise revenue to fund government expenditure (Aguolu, 2004). According to Omotoso (2001), tax is a compulsory charge imposed by a public authority on the income of individuals and companies as stipulated by the government decrees, acts or case laws irrespective of the exact amount of services rendered to the payer in return.

Ernest and Young (2012) describe tax planning as the advanced assessment of the tax implications on various decision alternatives with the objective of minimizing the tax burden or maximizing the benefits. Wahab and Holland (2012) view tax planning as relating to all activities designed to produce a tax benefit while Pasternak and Rico (2008) delineate tax planning as the legal utilization of the tax regime to one's own advantage, to reduce the amount of tax that is payable by means that are within the law and it has to be done before and during the course of business as it entails the preparation to pay tax completely, correctly and economically. Corporate Tax Planning (CTP) relates to the analysis of the financial situation of a business from a tax efficiency point of view so as to plan the finances in the most optimized manner that allows the taxpayer to make the best use of the various tax exemptions, deductions and benefits to minimize their tax liability over a financial year (ITA, 2009).

Noor, Fadzillah and Mastuki (2010) argue that most companies are involved in tax avoidance extensively with the purpose of reducing their income taxes since income-tax expenses will reduce their profits. It is important to reduce tax liability legally as this tax savings when invested leads to increase in after tax

earnings and growth in shareholders wealth (Desai and Dharmapala, 2009a). Reducing the tax burden through tax saving helps increase the working capital which can result into growth and profitability of businesses. Tax planning helps financial management as it influences investment in some areas and also allows managers to evaluate the tax implications of their investment decisions. This translates into valuable investment decisions and into higher firm value. Corporate tax planning attempts to reduce tax burden by using debt in capital structure to benefit from debt tax shield, claiming capital investment allowances such as wear and tear allowance (WTA) for non-current assets and investment deductions (ID), investment in export processing zones and compliance with tax laws as provided in the Income Tax Act (AIP, 2014).

The use of debt in the capital structure results into debt tax shield because the interest payments on loan obligations are tax deductible expenses (Pandey, 2009). The advantage of debt tax shield can also be obtained by leasing assets as opposed to outright purchase since the lease payments made under capital and operating leases are tax deductible on the lessee and this reduces taxable income thus improving the firm's financial performance (AIP, 2014). While planning for investments, companies should always consider tax credits that can accrue. An increase in a firms fixed assets can result in increased capital allowances and investment in some regions can increase the firm's capital investment deductions as the Finance Act 2009. The Act introduced Investment Deductions at 150% for investments above KES 200 million on construction of buildings or purchase and installation of machinery outside Nairobi City or municipalities of Mombasa and Kisumu (ITA, 2009). Investment in EPZs benefits firms through tax exemptions and tax holidays (KPMG, 2014). Firms should thus plan their activities in a manner that increases their allowable deductions but care should be taken to avoid overcapitalization which would lead to liquidity problems.

Tax compliance reduces exposure to tax problems such as stiff penalties, interest payment, possible shutdown of business and distractions from usual business activities by tax audits. The penalties for non-tax compliance in Kenya are punitive and firms that are not tax compliant may attract hefty penalties and interests which are very expensive to an organization as it negatively impacts on their financial performance. The study evaluated tax planning through tax compliance; capital investment allowances and debt tax shield because these tax planning avenues are available to all firms across the different market segments and thus would accurately represent tax planning activities.

Tax planning is becoming a major concern of world community. With Tax Justice Network suggesting that global tax revenue lost to tax avoidance exceeds US$255 billion per year. In October 2009 research commissioned by Deloitte indicated that the estimated revenue lost by the UK tax authorities from corporation tax planning activities was up to £2 billion per annum. The report by Deloitte concurred with the Trade Union Congress (TUC), which had concluded that tax avoidance by the 50 largest companies in the Financial Times Stock Exchange (FTSE 100) was approximately £11.8 billion. Commonwealth Association of Tax Administrators (CATA, 2009) posits that Ghana Revenue Authority lost seventy-four million pounds between 2005 and 2007 to the European Union (EU) in tax revenue as a result of tax avoidance by several multinational companies According to Kholbadalov (2012), in Malaysia, the amount of the avoided taxes recorded an increase of 9.38% from RM686.43 million in 2007 to RM750.83 million in 2008, and raised further in 2009 up to RM 844.92. Tax Justice Network-Africa (TJNA), indicated in a recent report that Kenya's corporate sector leads Africa in tax avoidance, estimating that the avoided taxes estimates to KSh. 106 billion annually.

Statement of the Problem

The main goals of every business organization are profit maximization and shareholders wealth maximization. Shareholders are therefore interested in the financial performance of the organizations as this directly impacts on their wealth. Tax planning can be used to enhance the performance of the organizations by utilizing the loopholes provided in the tax regime to reduce tax liability and thus reduce the transfer of resources from shareholders to the government Theoretically, corporate tax planning is of fundamental importance to any business as failure to plan taxes may lead to ultimate closure of business and firms that plan well for their taxes are expected to post improved profitability and should have less tax related costs. However in practice, many organizations are reporting declined profitability despite showing an increased uptake of tax planning with Tax Justice Network USA suggesting that global tax avoided exceeds US$255 billion per year. According to Tax Justice Network-Africa (TJNA), Kenya's corporate sector leads Africa in tax avoidance, estimating that KSh. 106 billion annually is lost to tax planning activities. While tax planning is seen to benefit the firm in different ways it also represents a cost and effective corporate tax planning involves a balance between the resultant benefits and costs incurred Different sectors approach tax planning differently leading to differing levels of tax burdens. Tax planning activities such as corporate tax compliance, claiming capital investment

allowances and benefiting from debt tax shield are expected to increase after tax earnings and increase shareholders wealth but despite the significant tax savings generated by tax planning activities there is increased decline in profitability of firms listed at NSE with several companies reporting 25% decline in profitability and giving profit warnings for the year 2016 as others report huge losses (NSE, 2016). There is mixed evidence on implications of tax planning on firms' financial performance as a result of tax planning costs outweighing the benefits, different industrial and country context and different sample sizes with different studies giving contradicting results. The study sought to determine the effect of corporate tax planning on financial performance of firms listed at NSE

General Objective

The general objective of the study was to determine the effects of corporate tax planning on the financial performance of firms listed at NSE.

Specific Objectives

The study was guided by the following specific objectives: Determination of the effect of corporate tax compliance on financial performance of firms listed at Nairobi Securities Exchange. Determination of the effect of capital investment allowances on financial performance of firms listed at Nairobi Securities Exchange. Determination of the effect of debt tax-shield on financial performance of firms listed at Nairobi Securities Exchange.

Hypothesis

The hypotheses tested were: Corporate tax compliance has no significant effect on financial performance of firms listed at Nairobi Securities Exchange. Capital investment allowances have no significant effect on financial performance of firms listed at Nairobi Securities Exchange. Debt tax shield has no significant effect on financial performance of firms listed at Nairobi Securities Exchange.

Significance of the Study

The study would be useful to policy makers such as the CMA, NSE and National Treasury (NT) in making policies on issues of tax planning. The findings of the study would have direct policy relevance for shareholders and tax consultants in monitoring and controlling firms' tax planning activities in order to enhance the firm value. This enables shareholders strike a balance on the expected costs and benefits of tax planning activities to be able to increase shareholders wealth. The findings of this study would make contributions to the existing literature on corporate tax planning and firms performance and would also establish new research gaps that would form basis for further studies in the area. It would also provide reference to researchers in related areas.

Scope of the Study

The study sought to examine the effect of corporate tax planning on the financial performance of firms listed at the NSE in Kenya. The study analyzed the effect of corporate tax compliance, capital investment allowances and debt tax shield on firm's financial performance. The study used annual reports and financial statements from the NSE handbook for the period covering 2010 to 2015 in order to obtain a better representative return on assets (ROA) of the firms under study.

Limitations of the Study

The study focused on firms listed at NSE and findings may not be the same for unlisted ones. The NSE listed firms are large, thereby limiting generalization of findings to small and medium enterprises.

Assumption of the Study

The study assumed that the audited published information from annual reports and financial statements reflected a true and fair view of the state of affairs of the companies and that the reports were neutral. The study further assumed that the published financial statements are subject to international financial reporting standard number seven (IFRS 7) on complete and full disclosure of all transactions, costs and activities that would affect the readers understanding of the financial statements.

LITERATURE REVIEW

Concept of Corporate Tax Planning

The concept of tax planning is introduced in the Income Tax Act where it is defined as an arrangement of one's financial affairs in such a way that without violating in any way the legal provisions, full advantage is taken of all tax exemptions, rebates, allowances and other reliefs or benefits permitted under the Act (ITA,2009). According to the American Institute of CPAs (AICPA), tax planning has two main objectives. The first is to minimize the overall income tax liability, whilst the other is to fulfill financial planning aims with minimal tax results. These goals can be achieved by reducing income tax resulting from an arrangement or a transaction, shifting the timing of a taxable event or by shifting income to another taxpayer, thus, reducing tax liability (AICPA, 2015).

The practice of tax planning dates back to 1947 when learned judge Hand, in the case Commissioner v Newman, held that there is nothing sinister in arranging ones affairs so as to keep taxes as low as possible for nobody owes any public duty to pay more taxes than

the law demands (Kawor and Kportorgbi, 2014). While tax planning is seen to benefit the firm in different ways it also represents a cost. The costs incurred by companies due to tax planning emerge from the current tax planning strategies and lead to what Weisbach (2002) describes as the "under-sheltering puzzle" that is, why firms do not appear to minimize tax liabilities. These costs range from direct costs such as salaries and fees paid to lawyers, accountants and tax advisors (Howell O'Neill, 2012) and indirect costs in form of opportunity cost arising because the taxpayer changes his financing and investment plans in the existence of taxes (Schreiber and Fuehrich, 2007; Howell O'Neill, 2012). TP may also call for corporate restructuring to achieve the desired tax benefit and in some cases may pose potential legal costs if the activities are challenged by a tax administration which can also then lead to reputational costs. Tax planning may also present an agency problem issue when managers do not act in the benefit of the shareholders but take tax planning as a chance for rent extraction, constructive accounting and sub optimal investment decisions. This represents the agency view of tax avoidance and may explain to some extent, the reason why tax savings do not trickle down to increased performance for some firms thus failing to achieve the tax planning objectives.

Financial Performance

The financial performance of an organization is of great importance to shareholders and stakeholders as it reflects how well a firm uses assets from its primary mode of business and operations to generate revenues. It is a general measure of firms overall financial health over a given period of time and helps in analyzing how well an organization is achieving the main objectives of maximizing profits and maximizing shareholders wealth. (Pandey, 2010). Financial performance can be enhanced by proper investment and financing decisions of the firm. Tax planning is a key activity in enhancing financial performance as it aims at maximizing the net present value of each transaction from a tax point of view (Jones and Rhoades- Catanach 2005). Measures of financial performance include profitability of the firm through earnings after tax, return on assets, return on equity and this study adopts the return on assets as the measure of financial performance.

Corporate Tax Compliance and Financial Performance

Compliance with tax laws is of great importance to businesses as failure to comply may attract several penalties and interests and also negative image for the organization. Tax noncompliance is a substantive universal phenomenon that transcends cultural and political boundaries and takes place in all societies and economic systems (Nicoleta, 2011). Kirchler (2007) perceives tax compliance as the most neutral term to describe taxpayer's ability and willingness to comply with tax laws, declare the correct income in each year and pay the right amount of taxes on time. According to Brown and Mazur (2003), tax compliance is multi-faceted measure and theoretically, it can be described by considering three distinct types of compliance such as payment compliance, filing compliance, and reporting compliance. While tax compliance is beneficial to every organization it also represents a cost in form of tax compliance costs (Evans, 2003). Slemrod and Yitzhaki (1996) identified compliance costs as one of the three components of the social costs of taxation and these increased costs may have a negative effect on the financial performance of firms. Such costs may exist when the tax regime changes and with introduction of automated tax systems which may necessitate the recruitment of more staff, training of the existing staff, acquiring of additional assets such as Electronic tax machines or introduction of higher wages for employees who have to be retained for their qualifications (Hijattulah and Pope, 2008).

A study by Osebe (2013) on factors affecting tax compliance in the real estate sector in Kenya found that fines/penalties had positive effect on level of tax compliance, while high compliance cost and high opportunity for tax evasion will reduce tax compliance among real estate investors. These findings are attributed to the effect that fines and penalties would have on the financial performance of the firms thus deterring firms from avoiding taxes due to the negative repercussions. On the other had increased compliance costs may present a morale for tax noncompliance as firms naturally wish to keep their costs low. The economic theory of tax deterrence as advanced by Allingham and Sandmo (1972) states that firms have to make a compromise on whether to comply or not with tax laws based on the cost to benefit analysis. Hence effect of corporate tax compliance is inconclusive.

Capital Investment Allowances and Financial Performance

Capital investment deductions represent an array of allowances that are provided by the Income tax act to induce investment. They are ultimately expected to reduce the taxable income and thus reduce the tax burden of firm's thus enhancing their performance (Simiyu, 2003). They form a part of tax incentive where tax incentives in Kenya can be grouped into either investment promotion incentives or export promotion incentives. Investment Promotion Incentives include Investment Deduction Allowance which is meant to encourage investment in physical capital assets such as industrial buildings, machinery and equipment, Industrial Building Allowances whose

objective is encouraging investment in industrial buildings like hotels and manufacturing plants, Mining deduction allowance to encourage investors to venture into mining industry which is very capital intensive and Farm works deductions to encourage investment in the agricultural sector. Export promotion incentives program has three schemes, namely Export Processing Zones (EPZs), Manufacture under Bond (MUB) and Tax Remissions and Exemption Office (TREO). The objective of EPZs is to generate and encourage economic activity and foreign direct investments while MUB and TREO regimes encourage investors to manufacture for export within the country (ITA, 2009).

Mucai, Kinya, Noor, and James (2014) sought to find out the extent to which expenditure on capital assets in tax planning, how tax planning by Capital Structure, how tax planning through Advertisement expenditure and how tax planning through Legal Forms of enterprise influence performance of small enterprises in Embu County. The study found the influence of tax planning by capital structure, by investment in capital asset and by advertisement expenditure has no significant relationship with the financial performance of small and medium enterprises in Kenya. These findings may be as a result of small and medium enterprises being privately owned where they are not subject to corporate tax rates but rather to the owners being taxed individually on all incomes both employment and business incomes.

Debt Tax Shield and Financial Performance

The tax deductibility of interest payments under most corporate income tax systems makes debt an attractive means of financing the business as it is thought to be cheaper and would therefore increase the financial performance of firms. Capital structure adjustments can be used to reduce the total tax burden on company investment since the taxation of the return on equity and debt capital differs in most countries. At the corporate level, interest payments reduce taxable profits while such a deduction is not feasible in the case of equity financing (Overesch and Wamser, 2010).

Auerbach (2002) posits that, typically, tax systems encourage the use of debt rather than equity financing. Overesch and Voeller (2010) carried out a study on companies located in 23 European countries using a rich panel of firm-level financial accounting data of, taken from the Amadeus data base In contrast to other studies, they focused mainly on stand-alone companies and collected detailed information about the tax systems of the considered countries during the period from 2000 until 2005.The empirical results suggest that a higher tax benefit of debt has the expected significant positive impact on companies' financial performance. On the other hand Keen and de Mooij (2012) analyzed a sample of 14,377 banks from 82 countries across Europe, Asia and the Americas between 2001 and 2009. They found that, on average, the leverage ratio of banks is 88.1%, compared to a ratio of between 40 and 60% for non-financial firms. This is strong indication that the leverage issue is more acute for banks. They studied the impact of taxes on capital structure of banks and found that despite capital requirement constraints, the effects of corporate taxation on financial structure of banks is close to the ones for non-financial firms.

RESEARCHMETHODOLOGY

Research Design

The study employed a causal research design, which is a type of design in which the researcher attempts to identify cause effect relationship among variables (Kasomo, 2006). The design helped explore effects of corporate tax planning on financial performance of NSE firms. Mugenda and Mugenda (1999) describe research design as a set of decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information.

Population of the Study

The target population in the study was all the 64 companies listed at NSE, divided into 11 marketing sectors. Population refers to an entire group of individual's events or objects having a common characteristic (Mugenda and Mugenda, 1999).

Sampling Procedures and Sample Size

Sampling is the selection from an aggregate or totality on the basis of which a judgment or inference about the aggregate or totality is made (Kothari, 2004). The study used purposive sampling to select the firms that had complete data and that were consistently listed within the period of study 2010 to 2015. The suitability of purposive sampling was to pick only those firms that meet the purposes of the study and 55firms sampled were from the various market segments of the economy that are listed at the NSE.

Research Instruments

The study employed a checklist as the research instrument to gather information relating to interest and penalties, capital investment allowances, level of investment in non-current assets, level of debt in the capital structure, and interest on debt, earnings before and after tax and return on assets. A checklist was used since it was possible to collect the data on the variables that were of relevance to the research. The checklist was used to collect data obtained from NSE handbook and respective company's websites.

Data collection Procedures

The secondary data was obtained from the financial statements of the listed companies which were accessible from their websites as per the disclosure requirement by the CMA. Information on financial performance was obtained from the financial statements. Specifically, net profit after tax and the total assets were collected from the financial statements to help in measuring the return on asset (ROA). The data was collected on the variables of interest for the 5 year period beginning 2010 to 2015 which is sufficient period to provide reliable data for this purpose.

Data Analysis

Data analysis entails coding, categorizing, data entry, manipulation and summarization (Mugenda and Mugenda, 1999). Once the data was collected it was organized edited and cleaned. The assumptions of linear regression model of linearity, normality, homoscedasticity and multicollinearity were tested before analyzing the data. The data was analyzed using ANCOVA multiple linear regression model. The hypothesis were tested using t-test while the overall significance was tested using F-test at 5% level of significance. The analysis was done using Statistical Packages of Social Sciences (SPSS) Version (21.0).

Model Specification

To determine the effect that the independent variables have on the dependent variable, the following regression model was used.

$$ROA_i = \beta_0 + \beta_1 D_1 + \beta_2 CIA_i + \beta_3 DTS_i + e_i$$

Where,
ROA = return on assets
CIA = capital investment allowances
DTS = debt tax shield
i= Firms
e_i = error term
β_0 = Fixed individual effect.
$\beta_1, \beta_2, \beta_3$= regression coefficient of independent variables
D_1 = dummy variable representing tax compliance
Where 1=for tax compliance and 0=tax noncompliance

Diagnostic Tests

Test for normality

Descriptive statistics were used to test for normality of data. The descriptive statistics computed include the maximum and minimum values, mean, standard deviation and coefficient of skewness and kurtosis. According to Aczel and Sounderpadian (2002), data is normal and unbiased when skewness statistic is between the ranges of ±3. The summary of the descriptive statistics is shown in Table 1.

The skewness statistics values were 1.401 for return on assets, -0.786 for tax compliance, 1.143 for capital investment allowances and 2.613 for debt tax shield. The coefficient of skewness for all variables was within the range of ±3.implying that the data on variables was normally distributed. Since the data was normal, it was suitable for use in further analysis

Autocorrelation test

Autocorrelation occurs when the variances of the error term are sequentially interdependent. This arises when the values of the error term in one period are related to values in another period and leads to biasness and inconsistency of parameter estimates. Autocorrelation was tested by the use of Durbin Watson (DW) test. A DW of zero implies that there exists positive correlation, while DW of 4 implies high negative correlation level. A DW of value between 0 and 4 implied that there was no autocorrelation. Table 2 indicates that the DW value was 1.948. Since this value was between 0-4, it indicates that there is no autocorrelation between the variables.

Multicollinearity test

Multicollinearity is the inter-correlation among explanatory variables. Multicollinearity leads to large variances and standard errors of OLS estimators which makes it more difficult to estimate true value of estimator. Multicollinearity was detected using coefficient of determination (R^2). According to Gujarati et al., 2007, multicollinearity is present if the coefficient of determination is high in excess of 0.8 or very low of less than 0.1, with few significant t-ratios. The values of the results were presented in the Table 3.

RESULTS AND DISCUSSION

Table 1. Descriptive statistics

	ROA	TC	CIA	DTS
Mean	0.0755857	0.68	3.9546729E+06	2.088E+06
Maximum	0.52066	1	5.13499E+07	2314867.50
Minimum	-0.19315	0	153780.00	0.00
Std. deviation	0.09980729	0.471	1.02799627E+07	4.65558E+06
Skewness	1.401	-0.786	1.143	2.613
Kurtosis	7.101	-1.435	14.542	13.778

Table 2. Test for autocorrelation

Variable	Value	Status
Durbin Watson	1.948	No autocorrelation

Table 3. Multicollinearity test

Test statistic	Statistic value	Status
R squared	0.545678	no multicollinearity
Adjusted R squared	0.469	
Std. error of the estimate	0.061	

Table 3 indicates that the computed value of the coefficient of determination (R^2) is 0.545678. Since this value is greater than 0.1 and less than 0.8, there exists no multicollinearity within the variables. This implied that there was no inter correlation among explanatory variables in the model hence the data was suitable for estimation without occurrence of large variances and standard errors of the OLS estimator.

Correlation

Correlation determines the magnitude or strength and direction of the relationship between two variables. This study used Pearson product moment correlation coefficient (R) to determine the correlation between dependent and independent variables in the model. A correlation coefficient R> ±0.7 implies that the variables are strongly related either positively or negatively (Table 4). Table 4 indicates that there exists a moderate positive correlation between tax compliance and return on assets for the companies listed at NSE with a correlation coefficient of 0.62. This implies that a high increase in tax compliance would result into a fairly high increase in return on assets.

The results show that there is a weak positive relationship between capital investment allowances and ROA with a correlation coefficient of 0.415. This implies that a high increase in the capital investment allowances leads to a low increase in the ROA. The results also show that there exist a weak negative correlation between debt tax shield and return on assets with a correlation coefficient of -0.32. Thus an increase in debt tax shield leads to a low decrease in ROA.

Regression analysis model

The study used a multiple regression analysis model to explain the relationship between the dependent and explanatory variables. R–Squared was computed to show the strength of the relationship and the regression coefficients were computed and their significance tested by t-test while overall significance of the model was tested by F-test at 5% level of significance The results of the analysis are presented in Tables 5 - 7.

Table 5 shows the model summary where R^2 is 0.5457 implying that 54.57% of variation in return on assets is explained by the independent variables while 45.43% are accounted for by other factors outside the model. The model is therefore moderately strong in predicting the return on assets of firms listed at NSE.

Table 6 indicates that the overall model is significant with F-value of 1.054 and p-value of 0.0087< 0.05 at 5% significance level. It implies that the model can be relied on in explaining the cause effect relationship between ROA and predictor variables.

From Table 7, the regression coefficients are 0.238, 0.076 and -0.142 for tax compliance, capital investment allowance and debt tax shield respectively. The constant is 0.045 indicating the return on asset that is independent of the factors in the model. The variables of the study are related using a stochastic linear regression equation of the form:

$$ROA = 0.045 + 0.238\text{TC} + 0.076\text{CIA} - 0.142\text{DTS}.$$

Table 4. Pearson correlation analysis

Variables	ROA	Status
ROA	1	Perfect correlation
TC	0.62	Moderate positive correlation
CIA	0.415	Weak positive correlation
DTS	-0.32	Weak negative correlation

Table 5. Strength of the model

Test statistic	Statistic value
R – squared	0.545678
Adjusted R – squared	0.469
Std. error of the estimate	0.061

Table 6. Test of overall significance of the variables

Test – statistic	Statistic value	p- value
F – test statistic	1.054	0.0087

Table 7. Regression coefficients

Variable	Coefficient	t- value	p-value
Constant	0.045	1.901	0.006
TC	0.238	1.728	0.009
CIA	0.076	0.348	0.042
DTS	-0.142	-0.650	0.038

R–Squared = 0.545678. Adjusted R-squared = 0.469

DISCUSSION

The study aimed at determining the effect of corporate tax planning on financial performance of firms listed at Nairobi securities exchange in Kenya. This was achieved by analyzing the effect of corporate tax compliance, capital investment allowance and debt tax-shield on financial performance of firms listed at Nairobi securities exchange. The significance of the regression model in predicting the relationship between corporate tax planning and financial performance of firms listed at NSE was tested at 5% significance level and found to be significant with F-value of 1.054 and P-value of 0.0087<0.05.

The coefficient of determination (R^2) was 0.545678 which implied that 54.5678% of variations in financial performance of firms listed at NSE would be explained by corporate tax compliance, capital investment allowance and debt tax shield, while 45.4322% of variations was explained by other factors not included in the present study. This model was fairly reliable in explaining the variations in financial performance of firms listed at NSE.

The effect of corporate tax compliance on financial performance of firms listed at Nairobi securities exchange was tested at 5% significance level. The level of financial performance was indicated by the level of return on assets of the firms. The results showed that there existed a significant positive relationship between corporate tax compliance and return on assets with a coefficient of 0.238 and a p-value of 0.009. This implies that increase in one unit of tax compliance leads to increase in return on assets by 0.238 units holding other factors in the model constant.

The effect of capital investment allowance on financial performance of firms listed at Nairobi securities exchange showed that there existed a significant positive relationship between capital investment allowance and return on assets at 5% significance level. The positive relationship was indicated by the positive coefficient of capital investment allowance of 0.076. This implies that increase in one unit of capital investment leads to increase in return on assets by 0.076units holding other factors in the model constant.

The effect of debt tax shield on financial performance was tested using t-test at 5%. The results showed that there existed a negative significant relationship between debt tax shield and return on asset. The negative relationship was represented by the negative coefficient of debt tax shield of -0.142. This meant that one unit increase in the debt tax shield led to decrease in return on asset by 0.142 units holding other factors in the model constant

RECOMMENDATIONS

Based on the findings and conclusions arrived at, the study recommended that: Firms listed at Nairobi securities exchange should increase their tax compliance levels to avoid unnecessary penalties and tax interest costs so as to increase their financial performance. Firms listed at Nairobi securities exchange should make use of capital investment allowances so as to reduce the taxable income and the amount of taxes paid as this translates to increase in after tax earnings. Nairobi Securities Exchange firms should decrease the level of debt used as the costs of debt may outweigh the benefit of debt tax shield resulting in a reduction in the financial performance.

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