Influence of tax planning on financial performance of manufacturing companies listed at Nairobi Securities Exchange

Simeon Mogote Oeta a, Richard Kiai b, Joseph Muchiri c

a School of Business, Department of Business and Economics, Karatina University, P.O Box 1957-10101, Karatina, Kenya

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ABSTRACT

This study sought to find out the influence of tax planning on financial performance of the manufacturing firms listed on the Nairobi Securities Exchange during the period 2010-2017. The study adopted a positivism research philosophy and an explanatory research design. SPSS version 23 was used to analyze data where both descriptive and inferential statistics was done. Multiple linear regression model was adopted to study the association between the variables while utilizing panel data. The study findings showed that there is no significant statistical association between tax planning and financial performance of the manufacturing companies listed in the Nairobi Securities Exchange. The results of the study indicated that capital intensity, research and development expenditure and company size have a positive insignificant association with financial performance. Further, debt to equity ratio indicated an insignificant negative relationship with financial performance. The study concluded that financial performance of manufacturing firms listed at the Nairobi Securities Exchange is not influenced by the tax planning. The study recommends that the manufacturing companies invest more in non-current assets and increase expenditure on the research and development to realize significant positive impact on financial performance. They should also manage their debt to equity ratios to avoid excess financing costs that may be detrimental to their financial performance.

Introduction

The manufacturing sector is a key contributor to economic development of any nation. In developing countries, greater emphasis is given to the manufacturing sector to enable attainment of middle-income status through provision of incentives geared towards encouraging investment in the sector locally and internationally through foreign direct investments. The manufacturing industry contributes about £6.7 trillion to the world economy and employed 12.4 million workers as at 2015 (Sulieman, 2016). In the United Kingdom, manufacturing sector contribution to the Gross Value Added (GVA) was 10% in 2015, it accounts for 45% of the exports and 2.7 million people in employment (Merozwa, 2015).

The Kenyan manufacturing sector has shown stagnating contribution to the GDP at around 10% with 11.0%, 10.7%, 10.0%, 9.4%, 9.2% and 8.4% for 2012, 2013, 2014, 2015, 2016 and 2017 respectively (KNBS, 2018). The sector has also recorded declining and unstable annual growth of 5.8%, 5.3%, -0.6%, 2.5%, 3.6% and 3.5% for the respective periods 2010 to 2016 rating poorly below the anticipated growth rate of 10% according to the aspirations of vision 2030 (KNBS, 2017). The industry exports 6.1% to East African Community and 12% to the rest of the world (KNBS, 2013). In 2017, the employment statistics stood at 300,900 people in this sector against 295,500 in 2016 representing a 1.8% increase (KNBS, 2018).

Despite of the Kenyan government commitment to promote manufacturing, most companies have recorded declining performance with financial managers focusing on financial restructuring and working capital management to revive their performance (Kibet, Tenei & Mutwol, 2011). The president of Kenya in 2017 inauguration pinned four keys pillars of developmental concern for his term.
2018 -2022 which include food security, affordable housing, manufacturing and affordable health care termed “The Big Four”. The manufacturing sector in 2016 grew by 3.5% which is below the average economic growth of 5.6% reported (KNBS, 2017). The big four project a contribution of 22% of the sector to GDP by 2022 (BPS, 2018). The concern is whether this will be realized given the dwindling performance in the sector.

Ftouhi, Ayed and Zemzem (2014) and Kportorgbi (2013) conducted a research seeking to establish the effect of tax planning on profitability of firms in Nigeria where they found a positive relationship between tax planning and financial performance. Nwoabia et al., (2016), also sought to establish the effect of tax planning on liquidity in Nigeria firms reporting a positive association to liquidity. Loretz and Moore, (2009), argued that tax planning has a negative relationship with financial performance of companies owing to the risk of reputational loss associated with tax planning. In Kenya, Wachira, (2011) examined the tax avoidance and performance of Kenya Airways while Owiti (2012) examined tax avoidance strategies on tax saving for manufacturing firms in Nairobi whereby they found no impact of tax avoidance strategies on tax saving. On the other hand, Kariuki, (2017), found a positive association between tax avoidance and financial performance of NSE listed companies.

The inconsistency of findings on the relationship between tax avoidance and financial performance and limited literature in the Kenyan context on the manufacturing sector motivate this study. Furthermore, given the weight manufacturing sector is accorded towards the realization of vision 2030 coupled with the worrying financial performance trends, it is crucial that this study be carried out to establish the influence of tax planning on their financial performance with specific aims to test the hypothesis: (i) There is no significant relationship between capital intensity and financial performance of manufacturing companies listed on the Nairobi Securities Exchange, (ii) There is no significant association between capital debt to equity ratio and financial performance of manufacturing companies listed on the Nairobi Securities Exchange, (iii) There is no relationship between research and development expenditure and financial performance of companies listed at the Nairobi Securities Exchange and (iv) There is no significant relationship between company size and financial performance of companies listed at the Nairobi Securities Exchange.

The remaining part of this paper is organized as follows; The next section presents the relevant literature review on tax planning variables and financial performance. The third and fourth sections discuss the methodology, empirical and data analysis respectively. Section five discusses the results and discussions while the sixth section presents the conclusions made.

Literature Review

Taxes are fundamental to the functionality of fiscal policies in any nation (IEA, 2012). In Kenya, taxes are the principal sources of government revenue and being a developing country, it needs to balance corporate taxes for significant attraction of foreign direct investments (FDI) (Kandie, 2011). A company’s objective is to maximize profit or the owners’ value and increase efficiency in service delivery in case of public utility companies. Tax being a significant component of a companies’ cost structure, it affects their liquidity, profitability and consequently reduces the firm value. As a consequence, organizations employ all legitimate approaches geared towards minimizing their tax burden to increase earnings after tax, increase liquidity and profitability in line with corporate objectives (IEA, 2012). Tax planning therefore becomes an inseparable element to decision making as does the making of operational decisions for a firm (Wahab & Holland, 2012).

Desai and Hines (2002) and Chen et al. (2010) found a positive association with tax planning and firm value using cross - sectional design. Desai and Dharmapala, (2009), got the same finding arguing further that good corporate governance mediated tax avoidance and firm performance relationship. Studying corporate tax avoidance and stock returns, Heitzman and Ogneva (2015), found a positive relationship between the variables using panel regression analysis. Benefits associated with tax avoidance are huge and there is a notable variation in firms’ ability to reduce income tax obligation (Heitzman & Ogneva ,2015)

Ikpekan and Owolabi (2014) and Khan and Safiuuddin (2016), argued that working capital is significant to liquidity and profitability of an entity and heavy taxes reduces the finances available to meet net current asset needs and their management. To avoid insolvency, firms need enough working capital which can be realized through minimization of corporate costs of which tax planning is important. Wahab and Holland, (2012), argued that financial performance of a firm is increased through proper tax planning which is done through legal ways.

Capital Intensity and Financial Performance

Gumo (2013) conducted a study to investigate the effect of tax incentives on financial performance of manufacturing companies in Kenya. The study established that tax incentives such as capital Investment Deductions (ID), Industrial Building Deduction allowance (IBD), farm work deduction, deductions on shipping investment and mining allowance that were meant to spur investment in the manufacturing sector did not significantly affect financial performance. Githaiga (2013) studied effect of tax incentives on listed firms in Kenya to attracting Foreign Direct Investments (FDI) between the years 2008-2011. The study variables ID, and IBD revealed no significant relationship to FDI. WTA had a strong relationship with FDI cash inflows. Shahean and Malik (2012) reported a positive association between capital intensity and firm value. Capital allowances results to tax savings that increases after tax returns of a firm. More investment in capital assets also increases production quality and saves on time which are key determinants to financial performance of an entity.
Capital Structure and Financial Performance

In Pakistan, Zahoor, Huma, Bader & Muhammad (2015) did a study on the effect of financial leverage on firm performance with the aim of finding capital structure effects on firm efficiency. They studied 154 firms in the textile industry for the period 2006-2011 using the regression analysis. They found a negative relationship between capital structure and efficiency. The negative association between leverage and Return on Assets (ROA) and Return on Equity (ROE) showed that firms borrow less. A similar study in Sri Lanka by Perinpanathan (2014) found a negative relationship between leverage and financial performance. On the contrary, Rehman (2013) found a positive relationship between leverage and ROA but a negative association between leverage and ROE. Enekwe, Agu and Eziedo (2014) investigated the effect of capital structure on listed pharmaceutical companies in Nigeria for the period 2001-2012 for three selected firms. The study found out that debt ratio and debt to equity ratio had negative association with ROA while interest coverage ratio had positive association with ROA.

Banafa, Muturi, and Ngugi (2015) investigated the effects of capital structure on the financial performance of non-financial companies quoted on NSE and their study revealed a negative association between capital structure and financial performance. In Indonesia, Kartikasari and Merianti (2016) studied the effect of leverage and company size on profitability for 100 listed manufacturing firms for the period 2009-2014. They found a positive relationship between debt ratio and profitability with total assets and profitability showing a negative association. Hussein, Sahid and Akmal (2016) conducted a study in Pakistan on the effect of capital structure on financial performance of firms in the textile industry. They found that leverage had an inverse association with return on assets and return on equity.

Research and Development Expenditure and Financial Performance

Research and development costs are the expenses that are associated with research into company goods and services aimed at generating innovations and efficiency for increased returns (Aw, Roberts & Xu, 2011). They will be measured as a quotient of research and development costs to total assets of a business entity. These costs are capital expenses which qualify for a tax credit to the firm and thus with great potential to increase the after-tax returns of a corporate (Mamba & Nyanumba, 2013).

Czarnitzki, Hanel, and Rosa (2011) studied the effect of tax credits in manufacturing firms in Canada targeting research and development as innovation impact indicators. Data was obtained from Canada Survey of Innovation in the year 1999 with a sample of 4,644 manufacturing firms. The study reported a positive influence of R&D tax credits on innovation output to the tax credit eligible firms. R&D motivates research leading to increased sales through innovative products projecting financial performance of a firm (Czarnitzki, Hanel & Rosa, 2011).

Company Size and Financial Performance

Different measures have been used by different scholars to measure company size which include natural log of total assets, log of total sales revenue and number of employees. Large firms are flexible financially and can take up investment opportunities, easy access to financing and have reduced financial challenges which finally increase firm value (Lee, 2009). According to the study carried out by Salih and Abdessatar (2001), company size as reported as positively and significantly affecting company profitability. On the contrary, Banchuenvijit (2012), found negative correlation between company size and financial performance arguing that the larger the firm the higher the costs which do not match the economies of scale and scope consequently lower the firm’s profitability. Kiganane, Bwisa, & Kihoro, (2012) studied the effect of company size on financial performance in the mobile industry where they found out that size has no significant effect on financial performance.

While studying the relationship between firm size and profitability in Sri Lanka, Niresh and Velampy (2014) found no significant relationship between firm size and profitability. The study focused on 15 manufacturing companies listed Colombo Securities Exchange while using total assets and total sales as measures of firm size. In (2017), Ali conducted a study on the manufacturing companies in Kenya trying to establish the moderating effect on firm size on strategic planning and financial performance. The results found out that firm size was an insignificant moderator of the dependent and independent variables used. Large companies due to their highly formalized nature may tend to more bureaucratic resulting sub optimal performance and inefficiencies (Bhunia & Khan, 2011).

Research and Methodology

Research Philosophy

This study adopted a positivism research philosophy. Positivism is based on facts through observation and measurement. It’s anchored on collection and interpretation of observable quantitative data (Collins, 2010). Bryman and Bell (2007) argued that it is the investigation of social reality using approaches for natural science. Positivist method can yield observable representative values which are desirable and reliable as research information (Saunders, Lewis & Thornhill, 2009). The key intent of this study is to give quantifiable information that may aid development of policy and law advancement.

Research Design

This study adopted explanatory research design to systematically and accurately describe the causal-effect relationship between tax
planning and financial performance of manufacturing companies quoted in NSE. An explanatory research design was used because without bias, it provides a complete understanding of the phenomena under study by explaining the variables in a detailed manner (Cooper and Schindler, 2008). Descriptive approach gave a description of tax planning and financial performance while explanatory approach was applied to give an estimation of how and to what extent tax planning practices affect financial performance. The design enables an investigation in which data will be collected and analyzed in order to explain the specific variables in their current trends, and to establish relationship between them (Khan, 2008).

Data Collection and Collection Tools

The study utilized panel data for the manufacturing companies for eight years from the year 2010 to 2017. Secondary data was obtained from the audited financial statement that are submitted by the companies and are available from NSE and CMA. Information was also obtained from scholarly articles and books on manufacturing sector to supplement this study. Data collected was limited to total assets, leverage used, company equity, taxes paid, research and development expenditure, capital allowances and total revenues. The study used a data collection checklist to facilitate collection of data from the financial statements.

Data Analysis, Presentation and Model Specifications

In this study, statistical package for social sciences (SPSS version 23) was used to facilitate data analysis. Data was analyzed using regression analysis to determine relationship between the dependent and independent variables. The data further was analyzed and presented through means, percentages, frequencies, standard deviations accompanied with written explanations on the findings. Both t-test and Analysis of variance (ANOVA) were used to test the significance of the regression model. The use of t-test is appropriate due to the small size of the population under study. The multiple linear regression models is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$Y$ = Financial performance of manufacturing companies (Return on Assets (ROA) and Return on Equity (ROE))

$\alpha$ - Constant (level of financial performance when all variables are zero)

$\beta_1$, $\beta_2$, $\beta_3$, $\beta_4$ are regression coefficients

$X_1 = \frac{N}{T}$ where $T$= total assets & $N$= fixed assets

$X_2 = D/E$ where $D$= Debt capital & $E$= Equity capital

$X_3 = \frac{R}{T}$ where $R$= Research and Development (R&D) costs and $T$= total assets

$X_4$ = Company size

$\varepsilon$=error term

Empirical Data and Analysis

Descriptive statistics of the Variables

Descriptive statistics provides a general description of the variables under study and includes the minimum, mean, maximum and standard deviation parameters. Table 1 represents the descriptive statistics findings.

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>9</td>
<td>-0.32</td>
<td>0.69</td>
<td>0.1455</td>
<td>0.3394</td>
</tr>
<tr>
<td>ROA</td>
<td>9</td>
<td>-0.12</td>
<td>0.21</td>
<td>0.0634</td>
<td>0.10543</td>
</tr>
<tr>
<td>CapInt</td>
<td>9</td>
<td>0.1</td>
<td>0.8</td>
<td>0.4208</td>
<td>0.22636</td>
</tr>
<tr>
<td>RnD</td>
<td>9</td>
<td>0.00</td>
<td>0.03</td>
<td>0.0048</td>
<td>0.0087</td>
</tr>
<tr>
<td>DER</td>
<td>9</td>
<td>0.17</td>
<td>16.02</td>
<td>2.7369</td>
<td>5.06765</td>
</tr>
<tr>
<td>SIZE</td>
<td>9</td>
<td>11.24</td>
<td>17.87</td>
<td>15.0437</td>
<td>2.02716</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ROA reported a standard deviation of 0.10543 with a mean 0.0634, Capital intensity recorded a mean of 0.4208 with a standard deviation of 0.22636, debt to equity ratio reported a 2.7369 mean with standard deviation of 5.06765 while research and development expenditure ratio to assets recorded a mean of 0.4833 with a standard deviation of 0.86996. From the statistics over the eight-year...
period, financial performance measured by ROE and ROA averaged at 14.55% and 6.34 % respectively.

**Diagnostic test**

The study utilized secondary data obtained from the financial statements of the companies and the CMA. To meet the objectives of the study it is assumed that the data collected is normally distributed. Data was cross checked for accuracy and data validity with a 95 per-cent confidence interval. For purpose of normality test, it was null hypothesized that the data collected was not normally distributed and the hypothesis was to be rejected if the p-value obtained was more than the significance level of 0.05. The test generated the outcome as indicated by table 2.

### Table 2: Tests of Normality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic</th>
<th>Df</th>
<th>Sig.</th>
<th>Statistic</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.218</td>
<td>9</td>
<td>.200*</td>
<td>0.855</td>
<td>9</td>
<td>0.085</td>
</tr>
<tr>
<td>CapINT</td>
<td>0.138</td>
<td>9</td>
<td>.200*</td>
<td>0.958</td>
<td>9</td>
<td>0.772</td>
</tr>
<tr>
<td>DER</td>
<td>0.196</td>
<td>9</td>
<td>.200*</td>
<td>0.869</td>
<td>9</td>
<td>0.12</td>
</tr>
<tr>
<td>RDE</td>
<td>0.31</td>
<td>9</td>
<td>.130*</td>
<td>0.664</td>
<td>9</td>
<td>0.1</td>
</tr>
</tbody>
</table>

* This is a lower bound of the true significance

a. Lilliefors Significance Correction

From the results both Kolmogorov-Smirnova and Shapiro-Wilk test confirms normal distribution of the data as the p-values obtained were more than 0.05 and thus the data was normally distributed and therefore the null hypothesis was rejected. This qualifies the data appropriateness for conducting inferential statistics. Skewness measures the level of asymmetry while kurtosis measures its peakedness of distribution of the variables. The data collected was screened and subjected to Skewness and kurtosis to check on normality in its distribution. Table 3 gives the Skewness and kurtosis results.

### Table 3: Skewness and Kurtosis

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Statistical</td>
<td>Std. Error</td>
<td>Statistic</td>
</tr>
<tr>
<td>ROA</td>
<td>9</td>
<td>0.0744</td>
<td>-0.74</td>
<td>0.717</td>
</tr>
<tr>
<td>ROE</td>
<td>9</td>
<td>0.2033</td>
<td>-0.03</td>
<td>0.717</td>
</tr>
<tr>
<td>DER</td>
<td>9</td>
<td>1.0989</td>
<td>1.01</td>
<td>0.717</td>
</tr>
<tr>
<td>CAPINT</td>
<td>9</td>
<td>0.3889</td>
<td>0.192</td>
<td>0.717</td>
</tr>
<tr>
<td>ReD</td>
<td>8</td>
<td>0.8675</td>
<td>1.091</td>
<td>0.752</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ROA and ROE indicate negative skewed values of -0.740 and -0.028 respectively. This shows that the left side tail distribution is longer than the right-hand tail distribution meaning that greater values lie to the right side of the mean statistic. Debt to equity ratio, Capital intensity and research and development expenditure were positively skewed at 1.01, 0.192 and 1.091 respectively.

**Correlation Analysis**

Correlation analysis was used to establish the association between financial performances (return on assets and return on equity) and the independent variables of tax planning for the manufacturing companies listed in the Nairobi securities exchange. It establishes the dependence of ROA and ROE on the individual independent variables of capital intensity, research and expenditure and debt to equity ratio. The results reported a positive but statistically insignificant relationship between capital intensity and return on assets with the correlation coefficient of 0.235 and p-value of 0.542 > 0.05 meaning that the correlation is not significant. The findings indicated a negative correlation between capital intensity and return on equity at -0.031. The p-value was greater than 0.5 meaning that statistically it’s insignificant. This implies that a unit increase in capital intensity decreases return on assets by 0.031.

Research and development indicate a positive correlation with both return on assets and return on equity at 0.253 and 0.171 respectively. This implies that a unit increase in research and development costs increases ROA and ROE by 0.253 and 0.171. The p-values of the results are 0.545 and 0.685 respectively which are above the significant level of 0.05. This means that the correlation is statistically insignificant.
Debt to equity ratio shows a negative correlation with ROA of -0.148 with a p-value of 0.703. The p-value is greater than 0.05 (0.703>0.5) meaning that the correlation is insignificant. The implication of this is that a unit increase in debt to equity ratio increases decreases the return on equity by 0.148. The correlation between debts to equity ratio to return on equity is positive at 0.266 with a p- value of 0.489. This points out that a one per cent increase in debt to equity ratio increases the ROE by 0.266 per cent .0.489>0.05 implying that the association is statistically insignificant. Company size has an average positive association with return on assets at 0.497 with a p- value of 0.174. However, the p-value is greater than the significance level of 5% implying that statistically the association is not significant. The association of size to ROE is also positive but weak compared to ROA. The Pearson correlation coefficient for ROE is at 0.257 showing that, as the firm size increase, financial performance increase increase implying that the larger the size, the higher the financial performance. The p-value of the association is 0.504 > 0.05 hence statistically the association is not significant.

Regression Analysis

The study sought to find out the relationship between financial performance and the independent variables of capital intensity, debt to equity ratio and research and development expenditure. The dependent variable (Financial performance) measured by ROA was regressed against the independent variables of capital intensity, debt to equity ratio and research and development expenditure under a 95% confidence interval. The finding of the regression was indicated in Table 4.

Table 4: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.768(^a)</td>
<td>0.591</td>
<td>0.745</td>
<td>0.05223</td>
</tr>
</tbody>
</table>

\(a.\) Predictors: (Constant), Size, CApINT, DER, RnD

The coefficient of determination (R\(^2\)) indicates that 59.1 per cent of the predictor variables of debt to equity ratio, R&D, capital intensity and size explain the financial performance measure (ROA). This means that 40.1% of the financial performance in the manufacturing firms is explained by other measures other than the ones covered by this study. The correlation coefficient (R) of 0.768 indicates a strong relationship between debt to equity, capital intensity, company size and R&D variables to financial performance of the listed manufacturing companies.

The study also conducted regression of return on equity (ROE) against the independent variables where the finding indicated that 59.3 % of the financial performance of the listed manufacturing firms of was explained by the independent variables of capital intensity, R&D expenditure, company size and debt to equity ratio. The correlation coefficient of 0.77 was obtained indicating a strong relationship between financial performance and the predictor variables of debt to equity, capital intensity, R&D and company size for the nine listed manufacturing companies.

The study employed t-test in determination of individual significance of each independent variable as a measure of financial performance. At 95 per cent confidence interval, a p-value of more than .05 indicates an insignificant relationship between financial performance and the selected independent variables while a value of less than 0.05 assumed a significant relationship between the variables. The findings are reported in table 5.

Table 5:Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-0.991</td>
<td>0.221</td>
<td>s=-4.48</td>
</tr>
<tr>
<td>DER</td>
<td>-0.08</td>
<td>0.029</td>
<td>-0.695</td>
<td>-2.75</td>
</tr>
<tr>
<td>CApINT</td>
<td>0.269</td>
<td>0.108</td>
<td>0.692</td>
<td>2.49</td>
</tr>
<tr>
<td>RnD</td>
<td>0.1</td>
<td>0.028</td>
<td>1.093</td>
<td>3.564</td>
</tr>
<tr>
<td>Size</td>
<td>0.064</td>
<td>0.013</td>
<td>1.33</td>
<td>4.907</td>
</tr>
</tbody>
</table>

\(a.\) Dependent Variable: ROA

Capital intensity, research and development expenditure and company size have positive coefficient of 0.269, 0.1 and 0.064 meaning that they move in the same direction with ROA as a measure of financial performance. When ROE was regressed against the independent variables the results in table 6 were obtained.
Table 6: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-3.141</td>
<td>0.701</td>
<td>-4.479</td>
</tr>
<tr>
<td></td>
<td>DER</td>
<td>-0.126</td>
<td>0.092</td>
<td>-0.343</td>
</tr>
<tr>
<td></td>
<td>CapINT</td>
<td>0.801</td>
<td>0.343</td>
<td>0.643</td>
</tr>
<tr>
<td></td>
<td>RnD</td>
<td>0.31</td>
<td>0.089</td>
<td>1.059</td>
</tr>
<tr>
<td></td>
<td>Size</td>
<td>0.194</td>
<td>0.041</td>
<td>1.261</td>
</tr>
</tbody>
</table>

Capital intensity, research and development expenditure and company size have positive coefficients of 0.801, 0.31 and 0.194 respectively while debt to equity ratio has a negative coefficient of 0.126.

Results and Discussion

The Pearson correlation coefficient revealed a weak statistically insignificant positive correlation between capital intensity and financial performance implying that the higher the investment in capital assets the higher the financial performance of the manufacturing firms. The findings were consistent with Shaheen and Malik (2012) who found a positive association while studying the impact of capital intensity and firm size on firm value but only differed on their statistical significance. In a study of the companies listed in China securities exchange, Liu and Cao (2007) found that capital intensity had no significant relationship with tax planning agreeing with the study findings.

The study also agreed with the findings of Githaiga (2013) who conducted a study on the effect of tax planning using capital allowances on foreign direct investment where the findings indicated no significant association between tax planning and foreign direct investment for companies listed in the Nairobi securities Exchange. Hsieh (2012) also used capital intensity as an independent variable while studying companies listed on Shanghai securities exchange and found out that capital intensity insignificantly affected tax rates.

The findings further reported a negative insignificant association between debt to equity ratio and ROA and a positive statistically insignificant association with ROE. This implies that the higher the use of debt the lower return on assets while the contrary is true for the return on equity. Optimal use of debt affords tax shield benefits to an organization. Excessive use of debt creates financial distress to an organization which results to decreased financial performance. The findings are consistent with Zahoor et al., (2015), who found a negative statistically insignificant association between leverage and return on assets in Pakistan while studying capital structure and firm efficiency. Velmampy & Vickneswaran (2014) found no significant relationship between capital structure and profitability listed telecommunication companies. Swingly and Sukharta (2015) reported a negative insignificant relationship between leverage and financial performance. Sabli and Noor (2012) also found that capital structure had no significant relationship with tax avoidance. Dharma and Ardiana (2016) did a study to establish the effect of leverage on tax planning and they reported a positive insignificant association between leverage and tax planning.

On research and development expenditure, the findings reported a statistically insignificant positive correlation between R&D expenditure and financial performance. The findings were consistent with Czarnitzki, Hanel, and Rosa (2011) who found a positive relationship between R&D and financial performance in Canada while studying research and development as innovation impact indicators. However, the two findings differed on their statistical significance. Doraszelski and Jaumandreu (2013) while studying impact of R&D on productivity also reported a statistically positive significant association between R&D and productivity. This implies that optimal use of research and development expenditure positively influences financial performance of a firm.

This study findings reported an insignificant positive influence of company size on financial performance of the quoted manufacturing companies. The Pearson correlation analysis indicated that a unit increase in the natural log of total assets increased financial performance by 17.4%. The study findings concur with Babalola (2013) who found out that in Nigeria, company size had a positive association with profitability. However, they differed on statistical significance of the association whereby Babalola found a statistically significant relationship as opposed to this study finding. According to a study carried out on the mobile industry by Kiganane, Bwisa & Kihoro, (2012), company size does not have any significant influence on company’s financial performance.

Conclusions

With regard to the hypothesis tested, the study leads to a conclusion that tax planning does not significantly affect financial performance of manufacturing companies listed in the Nairobi Securities Exchange and thus null hypothesis; There is no significant relationship between tax planning and financial performance accepted. It found out that capital intensity, company size, R&D expenditure had insignificant positive effect on financial performance while debt to equity ratio reported a negative insignificant association with financial performance of these companies.
The study findings will be beneficial to government and policy makers in evaluating the impact of various tax incentives which constitute tax planning mechanisms by companies on company financial performance. It will benefit corporate managers in identifying the optimum tax planning approaches to be utilized by firms to improve on their financial performance.

The study was limited to manufacturing companies listed at the Nairobi Securities Exchange and may not be generalized to other sectors. The study recommends similar studies using other sectors in the market and using other tax planning strategies to establish their effect of financial performance.

References


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