Impact of Capital Structure on Firms Performance: A Study on Karachi Stock Exchange (KSE) Listed Firms in Pakistan

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Abstract

The purpose of this study is to investigate Debt to Equity ratio to determine firm performance of Pakistani companies listed in Chemical, Food and Care products, Cement, Pharmaceutical, Auto assembler and Textile sector. The research done on 50 companies listed under Karachi Stock exchange covered the period of 2010-2014, total observations of 250 firms-years. The independent variable is Debt to Equity and dependent variables are Size, Earnings per Share, Return on Assets, Return on Equity and Marketing. The research employed Descriptive Statistics, Pearson correlation coefficient and multiple linear regressions and the findings shows Earnings per share, Return on Equity and Return on Assets are significantly correlated to Debt to Equity ratio. While Debt to equity ratio founds a significant impact on Size and Return on Assets. Furthermore, it is recommended that other firm specific factors can also be used with a more wider time span like Dividends, Taxes etc to gauge the impact and end with a more accurate outcome. This Study will eventually benefit the finance managers to define an optimal capital structure and also the research community by providing new knowledge regarding the impacts of capital structure. Though, other major economies can also be examined with different other industries to check the deviation of capital structure formation.

Keywords: Capital Structure, Firm Performance, ROA, ROE, EPS, Firm Size, Marketing, KSE.


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Introduction

This study is conducted to identify and explore the firm-specific factors of capital structure which impacts on performance in Pakistan and the research is carried out on five major contributing sectors registered in Karachi stock exchange (KSE). Pharmaceutical, Cement, Textile, Consumer goods, Automobile Industry and Chemicals are considered to be most prominent contributors to the Pakistan economy.

Capital Structure has been always a difficult topic to examine after the research conducted by Modigliani and Miller (Tailab, 2014). A significant number of studies have been conducted to address the impact of Capital Structure on Firm’s performance in developed as well as developing countries (Ahmad, Abdullah and Roslan, 2012; Nirajini and Priya, 2013; Ebrati, Emadi, Balasang and Safari, 2013; Chieh, 2013; Tailab, 2014; David and Olorunfemi, 2010; Abbadi and Rub, 2012; Ananiadis and Varsakelis, 2008; Goyal, 2013; Alsawalhah, 2012; Chowdhury and Chowdhury, 2010; Pouraghajan and Malekian, 2012 and Salim and Yadav, 2012). As seeing the past studies the mainly focused sectors by researchers are Power, Pharmaceutical, food and industrial sectors (Chowdhury and Chowdhury, 2010); Alsawalhah, 2012; Pouraghajan and Malekian, 2012; Tailab, 2014; Ebrati, Emadi, Balasang and Safari, 2013 and Ahmad, Abdullah and Roslan, (2012).

The researches carried out in Pakistan only enlighten some sectors which are not sufficient to make financial decision because of insufficient research proves to support the variables used in Pakistan and those findings cannot represents the entire sectors of the country because of distinctiveness of industry (Mujahid and Akhtar, 2014; Amara and Aziz, 2014; Bokhari and Khan, 2013; Hasan and Din, 2012; Mumtaz, Rauf, Ahmed and Noreen, 2013 and Javed, Younas and Imran, 2014).

Decisions regarding capital structure are always vital in Business corporations as they hold definite impacts on firm’s value (Tongkong, 2012). Inefficient financial decisions to finance its operations may lead to liquidation, financial distress and bankruptcy, although companies with high leverage should decide an optimal capital structure to cut off its cost (Suhaila and Mahmood, 2008). Further, heavily relying on equity finance may lead in the loss of growth opportunities and liquidity issues within the company (Javed, Younas and Imran, 2014).

Research Objectives

• To identify and examine the impact of capital structure on ROE
• To identify and examine the impact of capital structure on ROA
• To identify and examine the impact of capital structure on EPS
• To identify and examine the impact of capital structure on Marketing
• To identify and examine the impact of capital structure on firm Size
Literature Review

The term Capital Structure according to Weston and Brigham (1979) is referred as the financing of a company represented by Long term debt, net worth and preferred stock. Furthermore, Van Horne and Wachowicz (1995) define capital structure as a mixture of company's permanent long term financing represented by preferred stock, debt and common stock equity. According to (Suhaila and Mahmood, 2008), the capital structure of a company is a mixture of debt and finance which includes preference stocks and Equity as well as the reference as the firm's long term financing blends (Goyal, 2013).

Capital Structure has been widely discuss theoretically in past. Most renounce amongst them is the Modigliani and Miller theorem which is based on certain assumptions like frictionless and perfect markets, absence of transaction cost, no default risk or taxation and both investors and customers can borrow at the similar interest rate (Afrasiabishani, Ahmadinia and Hesami, 2012). Trade-Off Theory is another crucial theory for modeling capital structure. The company decides to find the set of investments which will be more worthy than others. Generally, conventionally sometimes marginal cost and marginal benefits are compared with each solutions based on the preference of the stakeholders (Afrasiabishani, Ahmadinia and Hesami, 2012). Furthermore, the Pecking Order Theory suggests that the internal sources of funds will come out with less care of finance and the share price. Hence, it was investigated in numerous literatures and was concluded that Pecking Order Theory receives overwhelming support by companies that generally faces serious adverse adopting issues (Frank and Goyal, 2009). In context of capital structure decision lastly agency cost is one of the crucial areas, which is important for management, shareholders, creditors and employees (Xhaferi and Xhaferi, 2015). Generally, the agency cost problem arises because of conflict of interest of stakeholders like managers, creditors and employees with shareholders (Afrasiabishani, Ahmadinia and Hesami, 2012).

Hence numerous scholars have addressed capital structure recently seeing to the significance of the issue to the present world. Salim and Yadev (2012) make a research to investigate the affiliation between Capital Structure and Firm's performance using a sample of 237 Malaysian Companies listed in Bursa Malaysia within a time span of 1995-2011. The findings show that firm's performance, which is measured through return on equity, return on Asset and earnings per share, and has significantly negative relationship with short term debt, total debt and long term debt as independent variables. In addition, a positive relationship is found between performance and growth for all the sectors. Moreover, Tobin's Q states that a significantly positive relationship is found between short term and long term debt and it also indicates that the total debt has significant negative relationship with the performance of the firm (Salim and Yadav, 2012).

Manawaduge, Zoysa, Chowdhury and Chandarakumara (2011) makes a study which represents an empirical analysis on how a capital structure impact on firm performance under the context of an emerging market - Sri Lanka.. The finding shows that most of the Sri Lankan companies finance their operations through short term debt capital as unlike long term debt capital and presents healthy argument that the firm's performance has
negatively affected through the use of debt capital (Manawaduge, Zoysa, Chowdhury and Chandarakumara, 2011).

Similarly a study conducted by Tailab (2014) examine the impact of capital Structure on financial performance of a firm in 30 energy American companies were taken for a period of nine years from 2005-2013 was taken into consideration and was been tested through Smart PLS (Partial Least Square) version 3 and Multiple regression Models. The findings of the study show that the total debt has a significant negative impact on ROA and ROE. Although even size in terms of sales puts significant negative impact on Return on Equity in American Companies. Though, a short term debt places a positive impact on ROE. An insignificant impact was been seen between debt to equity, long term debt, and size in context of profitability and total assets (Tailab, 2014).

Goyal (2013) conducts a research to mainly examine the impact of Capital Structure on the profitability of the public sector banks in India listed in the national stock exchange within a time period of 2008 to 2012. The sample for this study was been tested through regression analysis which has been used for testing the relationship between Return on Equity, Return on Assets and Earnings per Share with Capital Structure. Although the findings of the study shows that there is a significant positive relationship between profitability and short term debt as measured with the accounting gauges like Return on Equity, Return on Assets and Earnings Per Share. Furthermore, the researcher suggest that with addressing a wider range of period and using more accounting gauges, it will help out to be a more perfect outcome (Goyal,2013).

Conceptual Framework

![Conceptual Framework](image-url)

Figure 1: Conceptual Framework of the Capital Structure
Firm size expected to be a crucial indicator for measuring firm performance. Debt to equity ratio having a positive impact on firm size as larger firms play better than smaller firms by economies of scale and are flexible through economic recessions, driving to efficient performance including both market return and accounting profit (Goyal, 2013). Numerous empirical studies investigates the relationship of Debt to Equity ratio on firm's performance and found it significantly positive like Gleason et al., (2000) and Zeitun and Tian (2007), while other handful of studies like Tzelepis and Skuras (2004), found a positive relationship but no significant impact of Capital structure on financial performance. Therefore we hypothesis

\[ H_1: \text{Debt to equity ratio has a significant impact on size.} \]

EPS measure the profitability of a company from the view of the shareholders: it is a measure of how much profit a company has generated in a given period after tax, divided by the number of shares (Tudose, 2012). Earnings per share (EPS) measure shareholders’ profitability by revealing how much profit a share generates (Shahveisi et al, 2006). Therefore we hypothesis

\[ H_2: \text{Debt to equity ratio has a significant impact on EPS.} \]

Hall and Weiss (1967) consider "Return on Assets" as the measure to gauge performance to examine the relationship between profitability and size (Dogan, 2013). Return on Assets is often used as a technique to measure the rate of return on total assets after the deduction of expenses and taxes (Heikal et al, 2001). Investors would like the company to value the return on assets as high as the companies with a higher level of corporate profits which is greater than the return on assets while it is low (Heikal et al, 2001). Therefore we hypothesis

\[ H_3: \text{Debt to equity ratio has a significant impact on ROA.} \]

According to Goyal (2013) Return on equity is used to measure the firm's profitability through revealing how much profit a firm makes with money pooled by shareholders. In addition, return on equity is another profitability ratio which is chosen as they are vital accounting based and broadly accepted measures of financial performance which is been used by Habib and Victor (1991), Margaritis and Psillaki (2008), Zeitun and Tian (2007), Abbadi and Rub (2012) and Taani (2013). They consider ROE as a vital proxy for their studies. Therefore we hypothesis

\[ H_4: \text{Debt to equity ratio has a significant impact on ROE.} \]

Marketing is significantly correlated with capital structure decisions (OECD, 2008). It is observed that companies with more reliance on debt finance spent more on advertising cost as per to meet the loan requirements. Furthermore, Romer (1990) and Lucus (1988) admired the contribution of marketing activities in backing the firm performance (Zeitun and Tian, 2007). Therefore we hypothesis

\[ H_5: \text{Debt to equity ratio has a significant impact on Marketing.} \]
Research Design and Methodology

Research Design

This study will be a descriptive explanatory research as it is aimed to describe the characteristics of the main two components of the research topic which makes it descriptive and later would be gauging the impact of the independent variables on dependent variable which makes it fall in explanatory design.

Research Methodology

This research is a Quantitative study as it is based on Statistical data obtained from annual reports of the sample companies, Quade (1970) supported quantitative approach because it supports hypothesis and allows for collecting wide range of data which will help this research to answer the research questions.

Data Collection Method

Since the data for this study will be collected from the published annual reports of the sample companies, it will be the only source used for this study. Furthermore panel data method is adapted for this study. Panel Data is defined as a dataset in which the approach of entities is observed over time (Baltagi, 1997).

Population and Sampling

The total population for this study is 129 companies registered in 6 sectors of Karachi stock exchange which will be studied within the time span of 2010-2014. Hence the sample size chose for this study is 50 companies from all 6 sectors, selected randomly as shown in Table 1 below.

Table 1: Sample Selection

<table>
<thead>
<tr>
<th>No</th>
<th>Sector</th>
<th>Number of companies</th>
<th>Selected Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cement</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Food and Care Products</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Chemicals</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Pharmaceuticals</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Textile Composite</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>Automobile Assemblers</td>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>

Moreover, the sampling technique used for this research is convenience sampling. Hence, convenience sampling was most appropriate to this research as the financial data was not available for most of the companies registered in Karachi Stock Exchange so the companies were selected on the criteria of availability of data for 5 years which was required for this study.
Accessibility

The research would extract data from the published annual reports of the sample companies which are conveniently available from the official websites.

Ethical Issues

This research is entirely entitled to secondary data which do not lead to any encounter with human behavior, the ethical issues lie with this research are quite less. Only the issues that should be taken into consideration are copyrights and legal access to the published data which will be overcome through proper citation of the facts.

Data Analysis Methods

Data analysis is referred as a procedure of systematically applying logical or statistical techniques to evaluate, recap, describe or illustrate data (Dey, 1993). The three data analysis methods are engaged for these studies are Regression, Correlation and Descriptive Statistics using E-views software.

Results and Discussion

Descriptive Statistical Analysis

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt/Equity</td>
<td>250</td>
<td>3.16</td>
<td>622.20</td>
<td>129.13</td>
<td>102.27</td>
</tr>
<tr>
<td>Size</td>
<td>250</td>
<td>1.45</td>
<td>352.28</td>
<td>141.85</td>
<td>76.46</td>
</tr>
<tr>
<td>EPS</td>
<td>250</td>
<td>-59.48</td>
<td>190.30</td>
<td>18.17</td>
<td>29.80</td>
</tr>
<tr>
<td>ROA</td>
<td>250</td>
<td>-27.45</td>
<td>43.61</td>
<td>8.63</td>
<td>9.00</td>
</tr>
<tr>
<td>ROE</td>
<td>250</td>
<td>-95.53</td>
<td>233.15</td>
<td>17.22</td>
<td>24.93</td>
</tr>
<tr>
<td>Marketing</td>
<td>250</td>
<td>0.001</td>
<td>17.24</td>
<td>2.54</td>
<td>3.67</td>
</tr>
</tbody>
</table>

According to Table 2, it was found that the five major playing sectors of Karachi Stock Exchange experienced an average of Rs.129 debts with a standard deviation of 102.270. This shows the mean value does not reflect the overall industry mean since the SD is higher than 100%. The companies of the following sectors enjoy large size as the average mean is 141.851 and the standard deviation is 76.462. The companies lie in the following sectors of Karachi Stock Exchange earns 18 rupees of earning for per share and the standard deviation is 29.795. Furthermore, the companies enjoy an 8.631% return on their deployed assets and the standard deviation is 9.002. The sample companies in the chosen industries experiences an average return of 17.221% on their issued equity and the standard deviation is 24.933. Lastly, the sample companies of the chosen sectors are spending on marketing of 2.5% average of their net sales and the standard deviation is 3.665.
Correlation Analysis

Table 3: Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dent/equity</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>-0.107</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>0.15*</td>
<td>0.40**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.15*</td>
<td>0.48**</td>
<td>0.63**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.14*</td>
<td>0.47**</td>
<td>0.71**</td>
<td>0.82**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td>0.02</td>
<td>0.29**</td>
<td>0.25**</td>
<td>0.17**</td>
<td>0.29**</td>
<td>1</td>
</tr>
</tbody>
</table>

Significance: **p<0.01, *p<0.05

Interpreting from Table 4, it shows that the debt to equity is negatively correlated with size and the strength of the relationship between two variables is weak with -0.107. The size variable is insignificant with probability of 0.091 which is higher than the scale of 0.05. However, research findings are similar to the findings of Ahmad, Abdullah and Roslan (2012), Javed, Younas and Imran (2014). The relationship between debt to equity ratio and EPS is positively correlated and the strength of the relationship between two variables is strong with 0.148. The Earnings per share variable is significant with probability of 0.018 which is lower than the scale of 0.05. Therefore, this result of my study is similar to the findings of Mujahid and Akhtar (2014), Goyal (2013) and Chowdhury and Chowdhury (2010). The relationship between debt to equity ratio and ROA is negatively correlated and the strength of the relationship between two variables is weak with -0.150. The Return on Assets variable is significant with probability of 0.017 which is lower than the scale of 0.05. However, Ebrati, Emadi, Balasang and Safari (2013). The relationship between debt to equity ratio and ROE is positively correlated and the strength of the relationship between two variables is strong with 0.143. The Return on Equity variable is significant with probability of 0.023 which is lower than the scale of 0.05. However, the findings of this study are similar to Musiega (2013). The relationship between Debt to equity ratio and marketing is positively correlated and the strength of the relationship between two variables is weak with 0.0209. The Marketing variable is insignificant with probability of 0.742 which is higher than the scale of 0.05. The results show that all the dimensions teacher’s professionalism, knowledge, self-esteem and communication skills have strong relationship with student satisfaction and intention to continue. Overall, there is a strong relationship between all variables and it is significant.
Regression Analysis

Table 4: Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>EPS</th>
<th>ROA</th>
<th>ROE</th>
<th>Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>155.762</td>
<td>18.037</td>
<td>12.073</td>
<td>15.426</td>
<td>2.580</td>
</tr>
<tr>
<td>Standardized Beta Coefficient</td>
<td>-0.107</td>
<td>0.001</td>
<td>-0.027</td>
<td>0.014</td>
<td>-0.00031</td>
</tr>
<tr>
<td>Std.Error</td>
<td>0.033</td>
<td>0.023</td>
<td>0.010</td>
<td>0.023</td>
<td>0.0024</td>
</tr>
<tr>
<td>T-Values</td>
<td>-3.303</td>
<td>0.046</td>
<td>-2.758</td>
<td>0.604</td>
<td>-0.128</td>
</tr>
<tr>
<td>P-Values (P&lt;0.05)</td>
<td>0.001</td>
<td>0.964</td>
<td>0.006</td>
<td>0.547</td>
<td>0.898</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.945</td>
<td>0.817</td>
<td>0.651</td>
<td>0.741</td>
<td>0.870</td>
</tr>
<tr>
<td>Adjusted R-Square</td>
<td>0.931</td>
<td>0.770</td>
<td>0.563</td>
<td>0.676</td>
<td>0.837</td>
</tr>
<tr>
<td>F-Significant</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>1.971</td>
<td>1.457</td>
<td>2.038</td>
<td>1.994</td>
<td>1.384</td>
</tr>
</tbody>
</table>

Impact of Debt/Equity ratio on Size:

\[ \text{Size} = \text{CONSTANT} + \beta_1 \text{Debt_to_Equity} \] (1)

\[ \text{Size} = 155.7625 - 0.107(\text{Debt_to_equity}) \]

According to Table 4, the model shows that R square is 0.944 which indicates that only 94.48% of the dependent variable (Size) is elaborated by Independent variable (Debt to Equity Ratio). Nonetheless, 5.52% of the dependent variables is being explained and addresses by other factors which are not considered in this study. The adjusted R square is shown 0.930, which signals that 93% of variation in size, can be pointed to Debt to Equity Ratio which indicates that a model is a good fit as the variation value is more than 60% of range which is set to be appropriate in the study of (Zygmont & Smith, 2014). Further, the F-significance is 0.00 which shows that the model is significant. The F-Value of 68.179 shows that there is a relationship between Size and Debt to Equity Ratio. The Durbin Watson Static Test is 1.970 which shows that there is no auto correlation amongst the selected samples chosen for this research which lies between the ranges of 1.5 to 2.5 to be abstaining from auto correlation (Folarin and Hassan, 2015). The standardized coefficient beta value for Size variable is -0.107 and probability value is 0.001 which is less than 0.05 significant levels. Size found to have a significant negative impact on debt to equity ratio. Thereby, findings from this study is similar to the findings of Chechet and Olayiwola (2014), Soumadi and Hayajneh (2007), Amara and Aziz (2014).

Impact of Debt and Equity ratio on Earnings per share:

\[ \text{Earnings per share} = \text{CONSTANT} + \beta_1 \text{Debt_to_Equity} \] (2)
Earnings per share = 18.037 +0.001(Debt_to_equity) 

Likely to Table 4, the model founds that R square is 0.816 which indicates that only 81.16% of the dependent variable (Earnings per share) is elaborated by Independent variable (Debt to Equity Ratio). 18.35% of the dependent variables is being explained and addresses by other factors which are not considered in this study. The adjusted R square is shown 0.770, which signals that 77% of variation in Earnings per share can be pointed to Debt to Equity Ratio. This illustrates that a model is a good fit as the variation value and is more than 60% of range which is considered to be relevant in the study of Zygmont and Smith (2014). Further, the F-significance is 0.00 which shows that the model is significant. Therefore, the F-Value of 17.712 shows that there is a relationship between Earnings per share and Debt to Equity Ratio. The Durbin Watson static Test is 1.457207, which shows auto correlation between the chosen samples for this research as it falls beneath the range of 1.5 to 2.5 which is suggested to be secure from auto correlation as mentioned by Folarin and Hassan (2015). The standardized coefficient beta value for Earnings per share variable is 0.001 and probability value is 0.963 which is more than 0.05 significant levels, although earnings per share are found to have insignificant positive impact on Debt to Equity Ratio. However this study concluded with the similar findings of Ebrati, Emadi, Balasang and Safari (2013).

Impact of Debt and Equity ratio on Return on Assets:

Return on Assets = CONSTANT +β1Debt_to_Equity

Return on Assets = 12.072+0.026(Debt_to_equity)

According to Table 5, the model shows that R square is 0.650 which indicates that only 65.06% of the dependent variable (Return on Assets) is elaborated by Independent variable (Debt to Equity Ratio). 34.94% of the dependent variables is being explained and addressed by other factors which are not considered in this study. The adjusted R square is shown 0.562, which signals that 56.2% of variation in Return on Assets can be pointed to Debt to Equity Ratio. This signifies that this model is not a good fit as the variation value is less than 60% of range which is at least for being appropriate as mentioned in the study of Zygmont and Smith (2014). Further, the F-significance is 0.00 which shows that the model is significant. The F-Value of 7.413 shows that there is a relationship between Return on Assets and Debt to Equity Ratio. The Durbin Watson static Test is 2.037 which shows no auto correlation between the chosen samples selected for this research which indicates that the range of 1.5 to 2.5 is safe from being auto correlation (Folarin and Hassan, 2015). The standardized coefficient beta value for Return on Assets variable is -0.02665 and probability value is 0.0064 which is less than 0.05 significant levels. This shows that ROE have a negative significant impact on Debt to equity ratio. However, this findings are similar to the findings of Hasan, Ahsan, Rahaman and Alam (2014), Salim and Yadav (2012).

Impact of Debt and Equity ratio on Return on Equity:

Return on Equity = CONSTANT +β1Debt_to_Equity

(4)
\[
\text{Return on Equity} = 15.425 + 0.013(\text{Debt to Equity})
\]

According to Table 4, the model shows that R square is 0.74 which indicates that only 74.13% of the dependent variable (Return on Equity) is elaborated by Independent variable (Debt to Equity Ratio). 25.87% of the dependent variables is being explained and addresses by other factors which are not considered in this study. The adjusted R square is shown 0.6763, which signals that 67.63% of variation in Return on Equity can be point to Debt to Equity Ratio. The figure illustrates that the model is fit as the variation value is more than 60% of range which is set to be appropriate in the study of Zygmont and Smith (2014). Further, the F-significance is 0.00 which shows that the model is significant. However, the F-Value of 68.179 shows that there is a relationship between Return on Equity and Debt to Equity Ratio. The Durbin Watson static Test is 1.993 which show no auto correlation between the chosen samples selected for this research. This lies between the range of 1.5 to 2.5 to be safe from auto correlation as mentioned by Folarin and Hassan (2015). The standardized coefficient beta value for Return on Equity variable is 0.013 and probability value is 0.546 which is more than 0.05 significant levels. Which shows return on equity has a positive insignificant impact on debt to equity ratio. Similar outcomes were generated from the studies of Pratheepkanth (2011), Musiega (2013) and Tailab (2014).

Impact of Debt and Equity ratio on Marketing:

\[
\text{Marketing} = \text{CONSTANT} + \beta_1 \text{Debt to Equity}
\]

According to Table 4, the model shows that R square is 0.86976 which indicates that only 86.97% of the dependent variable (Marketing) is elaborated by independent variable (Debt to Equity Ratio). 13.03% of the dependent variables is being explained and addressed by other factors which are not considered in this study. The adjusted R square is shown 0.837, which signals that 83.70% of variation in Marketing can be pointed to Debt to Equity Ratio. This shows that a model is fit as the variation value is more than 60% of range which is set to be appropriate (Zygmont and Smith, 2014). Moreover, the F-significance is 0.00 which shows that the model is significant; while the F-Value of 26.578 shows that there is a relationship between Marketing and Debt to Equity Ratio. The Durbin Watson static Test is 1.3837 which show auto correlation between the chosen samples selected for this research which lie between the range of 1.5 to 2.5 to be abstain from auto correlation (Folarin and Hassan, 2015). The standardized coefficient beta value for Marketing variable is -0.00031 and probability value is 0.8984 which is more than 0.05 significant levels, which shows marketing have a negative insignificant impact on debt to equity ratio.
Summary Result of Hypothesis Testing

Table 5: Hypothesis Acceptance and Rejection

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Significance</th>
<th>Result</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Debt to Equity ratio has a significant impact on firm’s size</td>
<td>0.0011</td>
<td>Accepted</td>
<td>The p-value is 0.0011 which is less than 0.01. This shows that debts equity ratio is significant with total size of the firm</td>
</tr>
<tr>
<td>H2: Debt to Equity ratio has a significant impact on EPS</td>
<td>0.9635</td>
<td>Rejected</td>
<td>The p-value is 0.9635 which is more than 0.05. This indicates that Debt to Equity ratio is not significant with EPS</td>
</tr>
<tr>
<td>H3: Debt to Equity ratio has a significant impact on ROA</td>
<td>0.0064</td>
<td>Accepted</td>
<td>The p-value is 0.0064 which is less than 0.05. This indicates that Debt to Equity ratio has a significant impact on ROA</td>
</tr>
<tr>
<td>H4: Debt to equity ratio has a significant impact on ROE</td>
<td>0.5467</td>
<td>Rejected</td>
<td>The p-value is 0.5467 which is greater than 0.05. This shows that debt to equity ratio is not significant with ROE as p value is greater than the rule of thumb value of P&lt;0.05</td>
</tr>
<tr>
<td>H5: Debt to Equity ratio has a significant impact on Marketing expenditure</td>
<td>0.8984</td>
<td>Rejected</td>
<td>The p-value is 0.8984 which is greater than 0.05. This shows that debt to equity ratio is not significant with Marketing expenditure as p value is greater than the rule of thumb value of P&lt;0.05</td>
</tr>
</tbody>
</table>

Conclusion and Recommendation

The Debt to equity ratio found not to be significant with the profitability ratios in his study (Chowdhury and Chowdhury, 2010). Therefore, the result for size variables indicates that the companies with more debt finance obligations will suffer in squeezing their firms’ size in the sample companies listed in Karachi stock exchanges. The result for EPS shows that the companies whether use debt or equity Finance wouldn’t affect their spending of Earnings per share which supports the irrelevance theorem of Modigliani and Miller. The Result for ROE interprets that the companies relying more on Equity Finance experiences better equity returns compare to the companies which rely more to debt finance which opposes Pecking Order Theory. This study summarizes that the sample companies of the chosen sectors are spending 2.5% average of their net sales. Moreover, the result for marketing variables illustrates that the companies whether uses...
debt or equity finance, would not affect their spending of marketing activities which supports the irrelevance theorem of Modigliani and Miller.

Recommendation for future researchers is to investigate other variables that are not used in this study. The other variables that can be used are shareholders’ wealth, dividends and non-debt shield tax which can be investigated to discover different factors of capital structure impacting on performance of companies registered in Karachi Stock Exchange. Also future researchers could use probability sampling techniques or proportionate probability sampling techniques in selecting the target firms to provide a more accurate result and to generalise the result.

References


