



Tahmeena Bibi¹, Muhammad Hanif Akhtar²

Abstract

The objective of the paper is to explore the factors that tend to affect the debt-equity choice of securities companies in Pakistan. Data on the variables used in the study was extracted from income statements and balance sheets of various securities companies registered with the SECP over a period of 14 years from 2008 to 2021. Panel data analysis is based on the use of econometric techniques (fixed effects and random effects models) for estimation of results. Results of the study demonstrate that securities companies prefer to finance their assets with equity which denotes 72.15% of their total assets. In contrast, the total liabilities designate 27.85% of their assets. Profitability appears to be positively related to total and long-term debt ratios. The firm size is positive while tangibility is inversely associated with total and short-term debt ratios. Liquidity is negatively linked to all proxies of capital structure while the firm efficiency appears to have a positive connection with the short-term debt ratio. Results of the study are consistent with the predictions of trade-off and pecking order models. The empirical outcomes of the research offer some useful policy implications for regulatory authorities, managers and shareholders of the Securities Companies in Pakistan.

Keywords: Capital structure, Securities companies, Trade-off theory (TOT), Pecking order theory (POT), Pakistan

1. Introduction

In most cases, the investment and financing decisions of firms are made by their finance managers. Their job is to select the right mix of debt and equity to minimize the weighted average cost of capital (WACC), and to invest their funds in projects that are worth more than that of the WACC. According to Modigliani and Miller (1958), in a frictionless market, the mix of debt and equity neither affects the weighted average cost of capital nor the firm value. However, the choice between debt and equity does matter in imperfect markets as Modigliani and Miller (1963) suggest that in a world of corporate taxes, a firm can increase its value by using maximum amount of debt. Although, several empirical studies have explored the drivers of capital structure of firms in Pakistan, yet the findings remain inconclusive.

Qureshi & Azid (2006) have investigated the factors that tend to affect the capital structure of public and private sector companies in Pakistan during the period of 1976-2004. They have used total liabilities to total assets as the measure of leverage. Results of the study reveal that size, profitability, liquidity and tangibility are inversely while growth is positively associated with leverage. Likewise, taxes are negatively connected with leverage in the public sector and positively related to leverage in private sector firms. Asset utilization ratio (a measure of agency cost) is inversely related to leverage for public sector firms and positively linked to leverage for private sector counterparts. Hence, results of the study suggest that public sector firms are subject to strict scrutiny that is why they can raise funds from external sources easily compared to their private sector equivalents.

Sheikh & Wang (2011) have explored the drivers of capital structure of manufacturing firms in Pakistan. Results of the study demonstrate that liquidity, profitability, asset tangibility and earnings volatility are inversely while size of the firm is directly related to leverage. In another study, Sheikh (2015) has explored the drivers of leverage of service sector firms. Results demonstrate that profitability, liquidity and asset tangibility are inversely while dividend and size are directly related to leverage. Sheikh & Wang (2013) have estimated the effects of leverage on firm performance (ROA and MBR). They observed an inverse relationship between leverage and firm performance. They were of the view that overleveraging may increase the lenders' influence and therefore managers may not perform well. Shah & Khan (2017) demonstrated that profitability and liquidity were conversely while size, non-debt tax shield and tangibility were positively associated with leverage. While analyzing the data of textile firms in Pakistan, Ullah et al. (2020) observed that debt-equity ratio was inversely related to firm performance. They further estimated that the effect of asset turnover ratio (efficiency) on performance of firms while the results demonstrate an inverse relation between efficiency and performance but the relationship is statistically insignificant (Imran et al., 2021).

A few empirical studies in Pakistan have also explored about the drivers of leverage of financial firms. For instance, in an empirical study on leasing firms, Shah & Kausar (2012) observed that profitability; liquidity and taxes were inversely while size was directly related to capital structure. Sheikh & Qureshi (2017) have explored the drivers of capital structure of Islamic and conventional commercial banks in Pakistan. Results of their study divulged that growth; collateral value of assets and profitability are inversely while size and earnings volatility are directly attached to the leverage of conventional banks. Conversely, collateral value of assets and profitability are inversely while size is positively associated with leverage of Islamic banks.

Given the contextual discussion above, it is evident from the extant empirical studies that none of these have paid attention on capital structure of securities companies in Pakistan. Thus, the present research is an attempt to fill this gap and is useful in many ways. Firstly, it is expected to help in understanding the dynamics of capital structure decisions of securities companies in Pakistan. Secondly, It is expected to ascertain as to which factors are diverse in capital structure decision of securities companies in a developing country like Pakistan. Thirdly, using a large set of data set of 825 firm-years observations tends to provide convincing outcomes that could be valuable for the securities firms in developing countries like Pakistan. Finally, results of this study are expected to provide some useful insights to managers of securities companies regarding how to determine the optimal mix of debt and equity.

¹ PhD Scholar, Department of Commerce, Bahauddin Zakariya University, Multan, Pakistan, tahminakhosa@gmail.com

² Professor and Director, Meezan Centre for Islamic Finance (MCIF), Bahauddin Zakariya University, Multan, Pakistan, haneefakhtar@bzu.edu.pk

The remainder of the paper is structured as follow: Section 2 presents a review of literature while section 3 focuses on data description, operationalization of variables and methodology. Section 4 presents a discussion of results while the final part concludes with policy implications along with an agenda for the future.

2. Literature Review

Capital structure remains one of the unresolved issues in corporate finance literature. In their seminal study, Modigliani and Miller (1958) proposed debt-irrelevance theorem which states that, in frictionless markets, the mix of both debt and equity has no material effect on firm value. However, in imperfect markets, the mix of debt and equity does matter. For instance, Modigliani and Miller (1963) suggest that a firm can maximize its value by using debt due to tax-advantage on interest payment. Several empirical studies have tested these theorems and some new theories emerged in this process. For instance, trade-off theory (TOT hereafter) is based on tax-shield advantage associated with use of debt. TOT states that successful firms with tangible assets prefer to borrow more than unsuccessful firms with intangible assets. In contrast, pecking order theory (POT hereafter) is based on asymmetric information. POT suggests a hierarchy of finance. For instance, use retained earnings first, then external debt and finally equity as a last resort. Several researchers have tested these theories however their results are inconclusive. For instance, Titman & Wessels (1988) have tested the explanatory power of theories of optimal capital structure. Results show that debt level is inversely related to “uniqueness” of a firm’s line of business. Moreover, transaction cost is an important factor that affects capital structure, for example, firm size is negatively related to short-term debt ratio. Finally, they have observed no significant impact of future growth, collateral value, volatility and non-debt tax shields on leverage.

In an empirical study on G-7 countries, Rajan & Zingales (1995) observed that leverage in G-7 countries is similar to US firms. Size and tangibility are positive while market-to-book ratio and profitability are inversely related to book and market leverage of US firms. Similar factors affect capital structure choice of firms across G-7 countries as identified for US firms. Frank & Goyal (2009) have analyzed a long dataset of US firms i.e. from 1950 to 2003 to explore the drivers of capital structure. Results indicate that size, inflation and tangibility have positive while profitability and market-to-book ratio have negative affect on market leverage. As book leverage is concerned, firm size, inflation and market-to-book ratio are not reliable factors. Finally, they found their results consistent with the predictions of TOT.

Booth et al. (2001) used the data of 10 developing countries including Pakistan to explore whether theories developed in western setting are portable to developing countries. Results show that similar factors affect a mix of debt and equity in developing countries as observed for firms in developed countries. However, some persistent differences observed across countries which shows that some country factors are at work. Qureshi & Azid (2006) used the data of public and private sector companies in Pakistan during 1976-2004 to explore the drivers of leverage. Results show that size, profitability, liquidity and tangibility are inversely while growth is positively related to leverage measured as total liabilities to total assets. Taxes are inversely in the public sector while positively related to leverage in private sector firms. Asset utilization ratio (a measure of agency cost) is inversely related to leverage in the public sector and positively related to leverage in private sector firms (Imran et al., 2023).

Sheikh & Wang (2011) have explored the drivers of leverage of manufacturing firms in Pakistan. Results demonstrate that liquidity, profitability, asset tangibility and earnings volatility are inversely while size is directly related to the leverage. Sheikh & Wang (2013) have estimated the effects of leverage on firm performance (i.e. ROA and MBR). They observed an inverse relation between leverage and firm performance. They were of the view that overleveraging may increase the lenders’ influence and therefore managers may not perform well. In another study, Sheikh (2015) has explored the drivers of leverage of service sector firms. Results show that profitability, liquidity and asset tangibility are inversely while dividend and size are directly related to leverage. Shah & Khan (2017) demonstrated that profitability and liquidity are inversely while size, non-debt tax shield and tangibility are directly related to leverage.

Saif-Alyousfi et al. (2020) have analyzed the data of 827 Malaysian firms during 2008-2017 to explore the drivers of capital structure. Results show that profitability, growth opportunity, tax-shield, liquidity and cash flow volatility have inverse while collateral value, non-debt tax shield and earnings volatility have positive impact on leverage. Notably, size, age, interest and inflation rates are some important determinants of the present value of debt. While analyzing the data of textile firms in Pakistan, Ullah et al. (2020) have observed that debt-equity ratio is inversely related to performance. Moreover, they have estimated the effect of asset turnover ratio (i.e. efficiency) on performance. Results tend to demonstrate an inverse relation between efficiency and performance but the relation is statistically insignificant.

It is necessary to explain that a few studies in Pakistan have explored the determinants of financial firms but their findings are also inconclusive. For instance, Shah & Kausar (2012), and Imran et al., (2024) have analyzed the data of leasing companies to explore the determinants of capital structure. Results show that the size of leasing companies has positive whereas profitability, liquidity and taxes have negative impact on capital structure. Sheikh & Qureshi (2017) have tested the financial data of conventional and Islamic banks to identify the variables that have material effects on capital structure. Results show that profitability, tangibility and growth have a negative while size and earnings volatility have a positive impact on the book leverage of conventional banks. In contrast, profitability and tangibility have a negative while size has a positive impact on book leverage of Islamic banks. In sum, results of earlier empirical studies are mixed due to the reason that different models of capital structure are based on different assumptions. Moreover, institutional differences across countries are another important reason for inconclusive findings.

Gharaibeh et al. (2020) proved that firm size is positively related to leverage of the service sector in Jordanian. Moreover, Khan et al. (2020) examined the association of firm size with leverage. Their findings showed that the firm size has an important role to determining the decision about debt and equity.

Ali et al. (2022) investigated the multinational firms of UK and USA in energy sector for period of (2011-2019) to examine the influence of effective tax rate and the firm-specific variables on the capital structure. They had used tangibility, firm size,

profitability, risk, non-debt tax shield and liquidity in study. Furthermore, they have used four proxies for the capital structure such as total debt, long-term and short-term debts and net equity in the study. Their outcomes depicts that tangibility has significantly and negatively impacted the short-term debt ratio. Moreover, the profitability has positively influenced the total debt and long-term debt ratios (Imran et al., 2022).

3. Data, variables and methods of estimation

3.1. Data description

Data were taken from income statements and balance sheets of different securities companies registered with Securities and Exchange Commission of Pakistan for the years 2008-2021. The financial statements of these companies are downloaded from www.secp.org.pk. Out of the total 160 private companies, data of 128 private companies was found as consistently available. Resultantly, the sample consists of 825 firm-years observations over a period of 14 years from the year 2008 to 2021. Hence, to enrich methodological robustness, the study makes use of panel data econometric analysis.

3.2. Operationalization of variables

Definitions are listed in Table 1. As per practice, definitions of variables are taken from prior empirical studies.

Table 1: Measurement of variables

Variable	Symbol	Operationalization
Dependent variables		
Total debt ratio	TDR_{it}	Total debt / Total Assets
Long-term debt ratio	$LTDR_{it}$	Long-term debt / Total assets
Short-term debt ratio	$STDR_{it}$	Short-term debt / Total assets
Independent variables		
Profitability	$PROF_{it}$	EBIT / Total assets
Size	$SIZE_{it}$	Natural log of total assets
Tangibility	$TANG_{it}$	Property, plant & equipment / Total assets
Liquidity	LIQ_{it}	Current assets / Short-term debt
Efficiency	FE_{it}	Revenues / Total assets

3.3. Methodology

Pooled ordinary least squares, fixed effects and random effects methods used to estimate the results. Moreover, the Hausman test (1978) used to select either estimates of the fixed effects or random effects are better to explain the results. The model is specified as follows:

$$TDR_{it}, LTDR_{it}, STDR_{it} = \alpha_0 + \beta_1 PROF_{it} + \beta_2 SIZE_{it} + \beta_3 TANG_{it} + \beta_4 LIQ_{it} + \beta_5 FE_{it} + \varepsilon_{it}$$

Where TDR_{it} is the total debt ratio of company i at time t , $LTDR_{it}$ represents long-term debt ratio of the company i at time t , $STDR_{it}$ represents short-term debt ratio of the company i at time t , α_0 symbolizes the intercept, $PROF_{it}$ denotes the profitability of company i at time t , $SIZE_{it}$ denotes the size of company i at time t . $TANG_{it}$ mentions to tangibility of the company i at time t , LIQ_{it} means liquidity of the company i at time t , FE_{it} characterizes the firm efficiency of company i at time t . $\beta_1, \beta_2, \dots, \beta_5$ exemplify the parameters to be estimated for each independent variables and ε_{it} is the error term, while i denotes the selected private company ($i = 1, 2, \dots, 128$) and t is the index of time periods ($t = 1, 2, \dots, 14$).

4. Results and Discussion

4.1. Descriptive statistics

Table 2 presents summary statistics. The mean of total debt ratio is 27.85 percent. This ratio indicates that securities companies primarily prefer to finance assets with equity which represents 72.15 percent of total assets. The mean value of long-term debt ratio is 4.60 percent. Mean of short-term debt ratio is 23.25 percent. Short term debt is dominant because it represents 83.48 percent of total liabilities. Interest rate is high and as per term structure of interest rate short-term loans are comparatively cheaper than long-term loans that is why firms prefer to use short-term debt than long-term debt. Mean profitability is 2.59 percent. The mean natural log of assets (i.e. firm size) is 18.80. Mean asset tangibility is 4.46 percent. The mean value of liquidity is 30.08 times. This is ratio is higher than the manufacturing firms in Pakistan as reported by Sheikh and Wang (2011). Finally, the mean value of efficiency is 0.1359 times. Since this ratio is less than 1 which indicates managers' inefficiency in terms of assets utilization.

4.2. Correlation Analysis

Table 2 presents correlation of variables. Values of coefficients are small and indicate no concerns regarding multi co-linearity. Profitability is positively associated with total and short-term debt ratios. Size is positively related with total and short-term debt ratios, and profitability. In contrast, size is inversely linked to long-term debt ratio. Tangibility is negatively related to total debt, short-term debt, profitability and size. Liquidity is inversely related to total debt, short-term debt, profitability and asset tangibility. Finally, efficiency is positively related to short-term debt and profitability.

Table 2: Descriptive Statistics

<i>Variables</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std.Dev</i>	<i>Min</i>	<i>Max</i>
TDR_{it}	825	0.2785	0.2150	0.0054	0.8994
$LTDR_{it}$	825	0.0460	0.1046	0.0017	0.7757
$STDR_{it}$	825	0.2325	0.1927	0.0054	0.8977
$PROF_{it}$	825	0.0259	0.1495	-1.5007	0.7810
$SIZE_{it}$	825	18.800	1.087	15.779	22.652
$TANG_{it}$	825	0.0446	0.0730	0.0000	0.7136
LIQ_{it}	825	30.089	130.06	0.0450	1317.1
FE_{it}	825	0.1359	0.2867	0.0123	5.8211

Table 3: Correlation Analysis

<i>Variables</i>	TDR_{it}	$LTDR_{it}$	$STDR_{it}$	$PROF_{it}$	$SIZE_{it}$	$TANG_{it}$	LIQ_{it}	FE_{it}
TDR_{it}	1.00							
$LTDR_{it}$	0.44***	1.00						
$STDR_{it}$	0.87***	-0.05	1.00					
$PROF_{it}$	0.10**	-0.02	0.10**	1.00				
$SIZE_{it}$	0.31***	-0.16***	0.44***	0.24***	1.00			
$TANG_{it}$	-0.081**	-0.01	-0.08**	-0.01**	-0.07**	1.00		
LIQ_{it}	-0.25***	-0.05	-0.25***	0.11**	-0.04	-0.08*	1.00	
FE_{it}	0.04	-0.03	0.07*	.26***	-0.02	-0.05	-0.009	1.00

Note. ***, **, * indicates significance level at 1%, 5% and 10% respectively.

Table 4: Effects of firm-specific variables on total debt ratio

<i>Variables</i>	<i>OLS</i>	<i>FE</i>	<i>RE</i>
<i>Cons.</i>	-0.771	-1.875	-1.284
$PROF_{it}$	0.058	0.069*	0.577
$SIZE_{it}$	0.057***	0.115***	0.083***
$TANG_{it}$	-0.229**	-0.192	-0.249**
LIQ_{it}	-0.004***	-0.001**	-0.002***
FE_{it}	0.020	-0.069	0.005
R^2	0.163		
Adj. R^2	0.158		
<i>RMSE</i>	0.197		
<i>F – Stat</i>		20.88	
<i>Prob.</i>		0.000	
<i>Wald – χ^2</i>			113.9
<i>Prob.</i>			0.000

Note. ***, **, * indicates significance level at 1%, 5% and 10% respectively.

4.3. Regression Analysis

Table 4 demonstrates the effects of firm-specific variables on total debt ratio. Findings indicate that profitability is positively related to total debt ratio in the fixed effects method. Size is positively related to total debt ratio in all regressions. Tangibility is inversely related to total debt ratio in OLS and random effects methods. Liquidity is negatively related to total debt ratio in all regressions. Firm efficiency has no material effects on total debt ratio. Results of Hausman test reported in Table 7 shows that estimates of fixed effects are better than random effects. Results reported in Table 5 demonstrate that profitability is positively related to long-term debt ratio in random effects method. Size is negatively related to long-term debt ratio in all regressions.

Tangibility and efficiency have no material effects on long-term debt ratio. Liquidity is inversely linked to long-term debt ratio in OLS method. Results presented in Table 7 shows that estimates of random effects are more appropriate than fixed effects. Results reported in Table 6 show that size is positively linked to short-term debt ratio in all regressions. Tangibility and liquidity are inversely linked to short-term debt ratio in all regressions. Efficiency is positively related to short-term debt ratio in OLS method, and inversely linked to short-term debt ratio in the fixed effects method. Profitability has no material effects on the short-term debt ratio. The results of reported in Table 7 demonstrates that estimates of fixed effects are better than the random effects.

Table 5: Effects of firm-specific variables on long-term debt ratio

<i>Variables</i>	<i>OLS</i>	<i>FE</i>	<i>RE</i>
<i>Cons.</i>	0.381	0.596	0.423
<i>PROF_{it}</i>	0.041	0.036	0.045**
<i>SIZE_{it}</i>	-0.018***	-0.029***	-0.020***
<i>TANG_{it}</i>	-0.039	0.136	0.034
<i>LIQ_{it}</i>	-0.006**	-0.003	-0.003
<i>FE_{it}</i>	-0.018	0.022	-0.015
<i>R²</i>	0.035		
<i>Adj. R²</i>	0.028		
<i>RMSE</i>	0.103		
<i>F – Stat</i>		3.66	
<i>Prob.</i>		0.002	
<i>Wald – χ^2</i>			18.61
<i>Prob.</i>			0.002

Note. ***, **, * indicates significance level at 1%, 5% and 10% respectively.

Table 6: Effects of firm-specific variables on short-term debt ratio

<i>Variables</i>	<i>OLS</i>	<i>FE</i>	<i>RE</i>
<i>Cons.</i>	-1.15	-2.471	-1.780
<i>PROF_{it}</i>	0.017	0.033	0.014
<i>SIZE_{it}</i>	0.074***	0.145***	0.107***
<i>TANG_{it}</i>	-0.191**	-0.328**	-0.317**
<i>LIQ_{it}</i>	-0.003***	-0.003**	-0.001***
<i>FE_{it}</i>	0.038**	-0.090**	0.010
<i>R²</i>	0.255		
<i>Adj. R²</i>	0.251		
<i>RMSE</i>	0.167		
<i>F – Stat</i>		46.14	
<i>Prob.</i>		0.000	
<i>Wald – χ^2</i>			228.12
<i>Prob.</i>			0.000

Note. ***, **, * indicates significance level at 1%, 5% and 10% respectively.

Table 7: Hausman specification test

<i>Variables</i>	χ^2	<i>prob. > χ^2</i>	<i>Model</i>
<i>TDR</i>	49.37	0.000	<i>FE</i>
<i>LTDR</i>	6.70	0.243	<i>RE</i>
<i>STDR</i>	36.38	0.000	<i>FE</i>

4.4. Discussion of results

The positive relation between profitability and leverage confirms the implications of Trade-Off Theory which states that profitable companies choose to go for high leverage to satisfy their ability to discharge the contractual debt obligations on time. This allows

the firms to take advantage of tax credits on interest payments. The positive relationship between profitability and leverage confirms the findings of (Ali et al., 2022; Sulehri et al., 2023). The positive relation between firm size and total & short-term debt ratios confirm the implications of Trade-Off Theory which proposes that large size companies tend to have more borrowing and fewer tendencies to become bankrupt (Sheikh, 2015). More importantly, lenders feel comfortable while approving loans to large firms due to their cash flow position. The positive relationship confirms the findings of Sheikh & Wang (2011, 2013) Sheikh & Qureshi (2014), Sheikh (2015, 2019). Tangibility is inversely linked to total and short-term debt ratios. The inverse relation is inconsistent with the predictions of TOT. This negative relationship could be due to the reason that banks might be extending short-term bank loans such as lines of credit and revolving credits etc. without any collateral. If we look at descriptive statistics presented in Table 1 which shows that mean short-term debt ratio is 23.25% while long-term debt ratio is 4.60%. Moreover, results show that short-term debt represents 83.48% of total liabilities. As short term loans are available to firms even on personal guarantees so eliminating the need for physical collateral. More importantly, findings by Sheikh (2019) indicate that the personal connections act as the substitute of physical collateral in Pakistan. The negative relationship corresponds to the findings Khan et al. (2020).

Liquidity is inversely related to all proxies of capital structure. The inverse relation confirms the prophecy of Pecking Order Theory which postulates that firms with more liquid assets have a low tendency to borrow funds from external sources because of the availability of internally generated funds i.e., retained earnings. Moreover, higher liquidity of private companies tends to decrease the debt. It may be due to the companies not being able to fulfill their short-term obligations within time or forcing them to find other internal sources of financing like retained earnings. Moreover, this result also supports the agency theory which proposes that when agency costs of liquidity are high then external creditors inclined to decrease the debt financing limit available. The negative association confirms the findings by Sheikh & Wang (2011, 2013) Sheikh & Qureshi (2014), Sheikh (2015), Ali et al. (2022)

Finally, firm efficiency is positively related to the short-term debt ratio. As per upward slopping yield curve, short-term loans are relatively cheaper than long-term loans. Thus the use of low cost funds to finance the operations increases the firm's efficiency. In sum, results are found consistent with the implications of TOT and POT. So, capital structure models developed in Western setting have some explanatory power in less developing countries with different institutional setting.

5. Conclusions, policy implications with an itinerary for the future

Securities companies have different capital structure than financial and non-financial listed firms in Pakistan. For instance, securities companies primarily finance assets with equity which represent 72.15% of total assets. In contrast, total liabilities represent 27.85% percent of total assets. More importantly, short-term debt represents 83.48% of total liabilities. Results show that the positive relationship of profitability with leverage supports the trade-off theory which suggests profit-oriented companies attain more borrow because they have competency to achieve their contractual responsibilities on time. The outcome is consistent with the result of Ali et al. (2022). Firm size is positive related to total debt ratio and short-term debt ratio. The result is similar to the findings of Sheikh & Wang (2011), Sheikh (2015), Sheikh & Qureshi (2017), (Khan et al. 2020), (Gharaibeh et al. 2020). The positive inference imitates to the predictions of trade-off hypothesis which recommends that big firms avail more borrow as they are inclined to have a low probability of default. Asset tangibility has negative relations with leverage. The result is consistent with the outcome of Qureshi & Azid (2006), Sheikh & Wang (2011), Sheikh (2015), Sheikh & Qureshi (2017), and Ali et al. (2022). The negative relationship shows that securities companies did not pledge their assets for borrowings.

Liquidity is conversely related to the total and short-term debt ratios reflecting that the liquid position of the securities firms is strong. The negative association defends the visions of pecking order assumption which advocates that firms having more liquid assets are inclined to borrow less because of the availability of retained earnings. The outcome is similar to the result of Shah & Kausar (2012). The firm efficiency is positive related to short term debt. This relation depicts that securities companies can avail short-term loans with minimum cost than long-term loans. More importantly, (+/-) coefficients of different explanatory variables confirms the predictions trade-off theory and pecking order theory. Thus, findings of this study are fruitful for corporate managers of securities companies to determine a capital structure strategy that may enhance the firm value. For academic quarters, the study recommends focusing on other determinants of capital structure that could affect the optimal combination of debt and equity for securities firms in Pakistan vis-à-vis the countries at similar stage of development. For those eager to investigate in a similar field, they might use a sample of relatively homogeneous companies. Such an inquest may invoke higher generalizability of results. Moreover, for a better understanding it is further suggested to investigate the impact of internal attributes of corporate governance on capital structure choice of private companies in Pakistan. However, this is left out as a desideratum for the future.

The empirical outcomes of this research have some policy implications for regulatory authorities as well as for managers and shareholders of the Securities Companies in Pakistan. Firstly, since the capital structure of firms is affected by company physiognomies (tangibility, size and liquidity etc.) it would be vital for the management to ascertain how the value of the firm escalates across company characteristics and choice of capital structure. Secondly, the policymakers and managers of the securities companies in Pakistan are recommended to encourage debt financing while making capital structure decisions since a positive association was found between profitability and leverage. This might allow the firms to take advantage of tax credits on interest payments as well. Thirdly, it appears from the findings of the study that the private securities companies in Pakistan tend to finance their current liabilities through current assets for their short-term activities and growth. Fourthly, private companies appear to play a significant role in Pakistan's economy as can be witnessed through their contribution 11.3 % in 2022 to the GDP and are regulated by the Securities and Exchange Commission of Pakistan. On the policy prescription front, it can be further suggested that the SECP could make it mandatory for private companies to make their annual reports publicly available so that the researchable data could be extracted for further analyses.

Given the data constraints, the present study has endeavored as much as possible to study the most relevant proxies with their available dataset on the Securities companies in Pakistan but owes certain limitations. Firstly, the study has only focused on those internal determinants of the capital structure of securities companies for which consistent data was available across all the companies. These determinants could be extended through other elements like corporate governance issues to examine their effect on the capital structure of Securities Companies. Likewise, the sample size could also be extended through a survey-based study of these companies which might allow for a better understanding of the capital structure decisions by these firms and their implications for the management and policy formulation.

References

- Ahmed Sheikh, Nadeem, & Wang, Z. (2013) The impact of capital structure on performance: An empirical study of non-financial listed firms in Pakistan. *International Journal of Commerce and Management*, 23(4), 354-368.
- Ali, S., Rangone, A., & Farooq, M. (2022) Corporate Taxation and Firm-Specific Determinants of Capital Structure: Evidence from the UK and US Multinational Firms. *Journal of Risk and Financial Management*, 15(2), 55.
- Booth, Laurence, Varouj Aivazian, Asli Demircug Kunt, and Vojislav Maksimovic (2001) Capital structures in developing countries. *The Journal of Finance*, 56, no. 1, 87-130.
- Frank, M. Z., & Goyal, V. K. (2009) Capital structure decisions: which factors are reliably important? *Financial management*, 38(1), 1-37.
- Gharaibeh, O. K., & Saqer, A. T. (2020) Determinants of capital structure: evidence from Jordanian service companies. *Investment Management & Financial Innovations*, 17(2), 364.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251-1271.
- Imran, C. A. B., Shakir, M. K., & Qureshi, M. A. B. (2021). Regulatory Perspectives on AI in Autonomous Vehicles Global Approaches and Challenges. *The Asian Bulletin of Green Management and Circular Economy*, 1(1), 62–74.
- Imran, C. A. B., Shakir, M. K., & Qureshi, M. A. B. (2022). Applications of Artificial Intelligence in Enhancing Construction Safety and Productivity. *The Asian Bulletin of Big Data Management*, 2(1), 63-74.
- Imran, C. A. B., Shakir, M. K., Umer, M., Imran, Z., & Khalid, H. B. (2023). Construction Materials and Technologies: A Review of New Trends in Sustainable Development. *The Asian Bulletin of Green Management and Circular Economy*, 3(1), 10–21.
- Imran, C. A. B., Shakir, M. K., Umer, M., Imran, Z., Idrees, H. M. K. I., Ansari, Y., Imran, M., & Tariq, M. A. (2024). Building the Future: Applications of Artificial Intelligence In Civil Engineering. *Metallurgical and Materials Engineering* 30 (4),733-42.
- Khan, K., Qu, J., Shah, M. H., Bah, K., & Khan, I. U. (2020) Do firm characteristics determine capital structure of Pakistan listed firms? A quantile regression approach. *The Journal of Asian Finance, Economics and Business*, 7(5), 61-72.
- Modigliani, F. & Miller, M. H. (1963) Corporate Income Taxes and the Cost of Capital: A Correction, *American Economic Review*, Vol. 53 No. 3, p. 433.
- Modigliani, F., & Miller, M. H. (1958) The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297.
- Qureshi, M. A., & Azid, T. (2006) Did they do it differently? Capital structure choices of public and private sectors in Pakistan. *The Pakistan Development Review*, 701-709.
- Rajan, R. G., & Zingales, L. (1995) What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421-1460.
- Saif-Alyousfi, Abdulazeez. Y., Md-Rus, Rohani, Taufil-Mohd, K. Kamarun Nisham, Taib, H. M., & Shahar, H. K. (2020) Determinants of capital structure: evidence from Malaysian firms. *Asia-Pacific Journal of Business Administration*, 12(3/4), 283-326.
- Securities and Exchange Commission of Pakistan, <https://www.secp.gov.pk/data-and-statistics/>.
- Shah, Mumtaz Hussain, & Khan, Atta (2017) Factors determining capital structure of Pakistani non-financial firms. *International Journal of Business Studies Review*, 2(1), 46-59.
- Shah, S. Z. A., & Jam-e-Kausar (2012) Determinants of capital structure of leasing companies in Pakistan. *Applied Financial Economics*, 22(22), 1841-1853.
- Sheikh, Nadeem. A. (2015). Capital structure determinants of non-financial listed firms in service sector: Evidence from Pakistan. *Pakistan Journal of Social Sciences*, 35(2), 1051-1059.
- Sheikh, Nadeem. A., & Qureshi, M. A. (2017) Determinants of capital structure of Islamic and conventional commercial banks: Evidence from Pakistan. *International Journal of Islamic and Middle Eastern Finance and Management*, 10(1), 24-41.
- Sheikh, Nadeem. A., & Wang, Z. (2011) Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance*, 37(2), 117-133.
- Sulehri, F. A., Khan, H. M. A., Shahzad, M., & Ali, A. (2023). Beyond the Balance Sheet: Analyzing the Relationship between Corporate Governance, Financial Performance, and Stock Prices in Pakistan's Non-Bank Financial Industry. *Bulletin of Business and Economics (BBE)*, 12(4), 88-95.
- Titman, S., & Wessels, R. (1988) The determinants of capital structure choice. *The Journal of Finance*, 43(1), 1-19.
- Ullah, A., Pinglu, C., Ullah, S., Zaman, M., & Hashmi, S. H. (2020) The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. *Heliyon*, 6(8).