Does the Firm Size Influence the Leverage? An Evidence from Textile Industry of Pakistan

Athar K. Shar[1], Nazar Hussain Phulpoto[2], Syed Munir Shah[3] and Shokat Ali Mahar[4]

Abstract

The relationship between the size of a firm and its Leverage is one of the most hotly debated topics in corporate finance. This study aims to investigate this link within the framework of Pakistan's textile industry. The data from fifty textile businesses that trade on the Pakistan Stock Exchange were analyzed over three years, beginning in 2016 and continuing through 2018. For a panel data analysis, monetary information on firm size (as determined by the natural log of total assets) and Leverage (as determined by the debt-to-asset ratio) were used as the primary variables of interest. The data analysis carried out in the textile industry in Pakistan indicates a striking trend: Companies' dependence on Leverage, which refers to the utilization of borrowed money, grows as the size of the firms decreases. This hypothesis proposes that when looking for extra capital, businesses would instead seek it using existing internal cash and debt rather than by issuing new shares. The results have important implications for the textile industry in Pakistan, and those implications are enormous. In particular, smaller businesses need to be aware of the increased amounts of debt they carry and carefully consider their choices about their capital structure. These choices may have far-reaching effects on both the financial stability and the development possibilities of the firm; as a result, they need rigorous consideration to guarantee alignment with the organization's strategic goals and risk management strategies.

Keywords: Firm Size, Leverage, Textile Industry, Pakistan

Introduction

Due to the fast-paced nature of business, investors are more aware of the need to research as many facets of a company as possible, including its size. They believe that a company's size is an asset and its debt load a liability; however, examining the correlation between business size and Leverage is crucial. Researchers and practitioners in finance have long been interested in the correlation between the size of a company and its use of financial Leverage (Amanpreet & Singh, 2019). Bayazovna, (2023) argues that the textile sector is the most demanding because of its growing significance.

Leverage, also known as financial Leverage or debt ratio, is the proportion of a company's total funding from debt instead of stock. It significantly affects a company's financial performance and risk profile, making it a crucial factor in capital structure choices. Academics and businesspeople alike may benefit from a deeper understanding of the elements that affect Leverage. Reference: (Michael et al. Malitz, 1985). Companies with more workers and revenue tend to take out bigger loans since they can better mitigate the risk of default. Those findings are attributed to (Satyajit et al., 2022). However, the study's conclusion that more Leverage is

[1] *Ph.D Scholar, Department of Public Administration, Shah Abdul Latif University, Khairpur, Pakistan, Email: Atehar82@gmail.com*

[2] *Professor, Department of Public Administration, Shah Abdul Latif University, Khairpur, Pakistan, Email: nazar.hussain@salu.edu.pk*

[3] *Professor, Department of Public Administration, Shah Abdul Latif University, Khairpur, Pakistan, Email: munir.shah@salu.edu.pk*

[4] *Assistant Professor, Department of Public Administration, Shah Abdul Latif University, Khairpur, Pakistan, Email: mahar.shoukat@gmail.com*

terrible for an organization and would reduce its performance is at odds with previous findings. (Kalash & Ismail, 2021). Therefore, it is critical to comprehend how business size affects Leverage.

Pakistan is home to a thriving textile industry with many businesses. Because of its importance to the country's economy and workforce, this field of research is crucial. This study aims to determine if bigger or smaller enterprises in the textile sector tend towards greater or lower Leverage by analyzing the correlation between company size and Leverage. As one of Pakistan's primary economic drivers, the textile sector is also the country's primary employer. There was an increase of 7.18 percent, or $7.2 billion, in this sector's contribution to GDP in 2018 (Memon, et al., 2020)

This research will add to the existing literature on capital structure decisions and have practical implications for Pakistan's textile industry businesses. The results will help the top management of textile companies in Pakistan determine how much debt they can take on. Understanding the factors that affect Leverage can help businesses tailor their financing strategies to their unique needs, regardless of size or sector. The study's findings also help politicians and regulators create sound plans for the long-term success and prosperity of the textile sector. In conclusion, this research aims to learn how company size affects Leverage in Pakistan's textile sector. The research aims to improve our knowledge of capital structure choices in the textile industry by analyzing the correlation between company size and Leverage. Financial efficiency and stability will be improved due to the results, which will inform both theoretical and practical research and decision-making within the sector.

Research Objective

The main objective of this study is to find the relationship between Firm Size and Leverage.

Research Questions

During our study, we will try to find out the answer to the following questions: -

1. Are the firm size and Leverage positively related to each other?
2. Are the firm size and Leverage negatively related to each other?
3. Is there any significant relationship between Leverage and firm size?

Literature Review

The fundamental definitions of these variables are necessary before we can comprehend their connection. One of the most critical aspects of finance is the company's size and debt ratio (Leverage). Many writers have attempted to define Leverage; for example, Hanafi and Halim (2007) suggested that a high leverage ratio is equivalent to a high debt ratio. When debt levels rise, investors feel less safe and satisfied, yet debt may help boost profits while requiring fewer resources. A sensible financial choice can only be made at that ratio where there is less risk of uncertainty and greater profitability, making this a highly significant issue to understand. The size of the company is the second factor. The size of a firm is measured by its overall value, which considers factors such as the number of workers, assets, sales, market reputation, etc.

Ali et al. (2015) examined Pakistan's textile industry to determine the effect of company size on profit management. Earnings management was shown to be significantly affected by the natural logarithm of total assets, a proxy for business size. Samo Murad (2019) analyzed how liquidity and financial Leverage affect profits in Pakistan's textile sector. While the authors' primary interest was in profits, their research helps shed light on how company size affects their capacity to use Leverage. Hussain (2011) used a panel data analysis to examine how businesses in Pakistan's textile sector expanded and how they handled their finances. Corporate financial Leverage in the textile sector was shown to be highly affected by firm-specific drivers such as profitability, efficiency, growth, risk, and collateral. The capital structure of Pakistani

listed enterprises, particularly those in the textile industry, was studied by Khan et al. (2020). Larger businesses were found to have lower Leverage levels, indicating an inverse link between company size and Leverage. Javeed and Tabassam (2018) investigated how financial Leverage affected the profitability of publicly traded Pakistani textile companies. Their research sheds light on the correlation between financial Leverage and business size in the textile sector, which was not their primary emphasis. The research indicates a correlation between company size and Leverage in Pakistan's textile sector. Leverage is often lower in larger companies and more significant in smaller ones. Reasons for this correlation include the former's greater access to internal finance sources and the latter's greater demand for external financing.

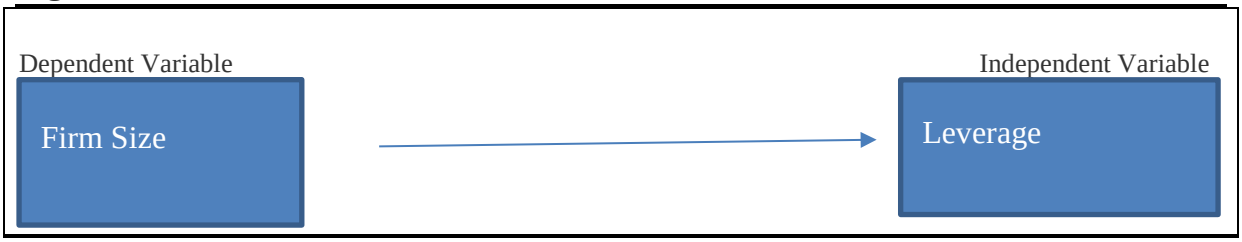
The Pecking Order Theory

Donaldoson (1961) is known as the founder of this theory. This theory supports the statement that the size of a firm will decide the working capital to retain and the leverage level of the firm; larger firms can take low debt in percentage as compared to the small firms to get the best results, which means maximizing the wealth of their shareholders by increasing their equity.

Research Model

The figure below represents the complete study model. This model shows both variables of the study and shows that the firm size is the dependent variable, and the Leverage is the independent variable.

Figure 1-Research Model



Hypothesis

Some studies claim there is no connection at all between leverage and size. For instance, Chadha and Sharma (2016) did not discover any significant relationship between firm value and leverage while analyzing the impact of power on substantial value using a sample of 422 firms from the Indian manufacturing sector, which implies that their study does not support any significant relationship between size and leverage. However, because of the study's limited sample size and focus on the manufacturing industry, only a hazy conclusion could be drawn. Considering the above arguments in light of previous researchers justified their scientific results. Therefore, the following three possible hypotheses can be removed from our study.

Hypothesis: 01. A). There is no relationship between firm sizes and leverage.

Hypothesis: 01. B). There is a negative significant relationship between both mentioned variables.

Hypothesis: 01. C). There is a positive significant relationship between the Firm size and leverage.

Research Methodology

This research chose 50 Pakistan Stock Exchange-listed textile firms based on 2016-2018 data. Financial data was taken from sample firms' annual filings on the Pakistan Stock Exchange website. Following previous academic work, business size and leverage were quantified using total assets and debt-to-asset ratio. Panel data analysis was the best way to analyze the dataset's

cross-sectional and time-series dimensions to assess the firm size-leverage link. Panel data regression models were done in EViews 10. Testing included common effect, fixed effect, and random effect models. Diagnostic tests, including Chow, Hausman, and Lagrange Multiplier, were used to choose the best model. These tests suggested the fixed effects model for the primary regression analysis since it adjusted for unobserved company heterogeneity. The debt-to-asset ratio was the dependent variable, and the natural log of total assets was the independent variable. The baseline model does not contain control variables, but future studies may add them. The regression coefficient on business size was supposed to reveal if more giant textile manufacturers had more excellent leverage ratios. The results will affect capital structure theories like the pecking order hypothesis and firm leverage decisions.

Variable Measurement

Table 01 "Variable Measurement "

(Table number 01 shows the variable's names and measurements with references to previous research and authors who used the same variable with the mentioned measurement.)

Table 1

Sno	Variable	Variable Measurement	Reference
01	Firm Size (Fsz)	Natural logarithm of the book value of the firm's total assets	Tim Opler, et. al. (2018), Fauziah Noordin Abdul Kadir Othman Erne Suzila Kassim (2016), Bates &Kahle (2009)
02	Leverage (lev)	Total Debt Total Asset	Tim Opler et. Al. (2018), Al-Najjar and Belghitar (2011)Ifran Ali (2011)

Findings

Table 02 “Tests to select the best model”

(This table number 02 showing the complete process of tests with the names and options which are selected in test.)

Table 2

Sno	Type (test)	Options to chose	Chosen
01	Chow Test	Common effect and fixed effect	Fixed Effect
02	Hausman Test	Random Effect and Fixed effect	Fixed Effect
03	LM Test	Common Effect and Random effect	Common Effect

Table 03 “Chow test”

(This table number 03 showing the results of Chow test. With its results of statistic and probability)

Table 3

Sno	Effects	Statistic	Probability
01	Cross-section F	4.935	0.0

Table 04 “Hausman Test”

(This table number 4 is showing the results of Hausman Test. With chi squire result and its significance.)

Table 4

Sno	Summary	Chi Square(Statistic)	Significance
01	Cross section Random	38.014	0.071

(The table number 05 is showing the complete results with its complete details which includes the Serial number, variable, result, Chi-square and probability.)

Table 5

Sno	Variable	Result	Chi-square d.f	Probability
01	Firm Size (Fsz)	0.00197	3	0.0

Finally, the findings are concluded in the Tables mentioned above—table number 2 shows which test is to be taken and test which option is to be taken: Chow test, Hausman test, and LM test. Consequently, table 03 shows the results of the Chow test. Similarly, table 4 shows Hausman. The last Table, number 05, shows the mark of 0.00197, chi-square 3, and the probability of results is 0.0, which proves that the test results in the intelligence of the GLS random effects regression outcomes for the leverage model. The results of this analysis support the pecking order theory hypothesis. Both variables are negatively related to each other. The pecking order theory is also giving the same concept. The leverage measure is negatively associated with firm size, and the significance level also shows that the result is significant.

Discussion

This study analyzes how different company sizes in Pakistan's textile sector use leverage. The significance of the textile sector to Pakistan's economy and the value of analyzing capital structure are introduced. The study's aims, questions, and hypotheses are spelled out.

The literature review compiles studies examining the correlation between company size and leverage. Research on corporate finance in general, such as the pecking order theory, is included with case studies of the Pakistani textile sector. The author argues convincingly that this situation lends itself to a connection between business size and leverage.

The research design is robust since it used panel data analysis to examine 50 textile companies over three years. Previous research provides a solid precedent for the accuracy of the variables' measurements. The author methodically runs through a battery of econometric tests to choose the optimal model specification. The data shows a negative correlation between business size and leverage in Pakistan's textile sector. Power is used more aggressively by smaller businesses than by their bigger counterparts. By the pecking order hypothesis, therefore. The findings are summed up in the conclusion. It establishes connections between them and earlier theoretical and practical studies. The study's limitations may need more attention here. A wide range of sources are cited, including studies of corporate finance in general and studies of the textile sector in Pakistan.

It is well-defined and concise empirical research that sheds light on the factors influencing capital-strategy choices in a significant Pakistani sector. The findings are essential for managers and politicians interested in bolstering the textile industry via optimal leverage. The study might be improved by further exploring the role of causation and the influence of industry-specific variables. However, the study adds much to the existing body of knowledge within its confines.

Conclusion

This research evaluated the correlation between company size and leverage in Pakistan's textile sector. Panel data regression analysis was used for 50 publicly traded textile companies. Firm size, as defined by the natural log of total assets, was shown to be inversely related to leverage, as assessed by the debt-to-assets ratio. Leverage was greater among smaller textile enterprises than among bigger ones. The data supports the pecking order hypothesis, which postulates that businesses put internal finance and equity financing ahead of loan funding. Larger businesses rely less on debt funding from outside sources since they have more internal resources. Companies with fewer resources for expansion capital may have to depend more heavily on debt. The findings have real-world consequences for how Pakistani textile companies allocate their money. Capital structure optimization might include decreasing debt levels for larger, more established businesses. Increased financial leverage may be an effective growth strategy for smaller companies. The results help further the study of the size-leverage connection and provide light on how to manage finances in Pakistan's crucial textile sector.

References

- Akbas, H.E., Karaduman, H.A. (2012). The effect of firm size on profitability: An empirical investigation on Turkish manufacturing Companies. *European Journal of Economics, Finance, and Administrative Sciences.*
- Al-Najjar, B., & Belghitar, Y. (2011). Corporate cash holdings and dividend payments: Evidence from the simultaneous analysis. *Managerial and decision economics.* 32(4).
- Amanpreet Kaur and BalwinderSinghView, (2019). Does a Firm's Size Speak of Its Reputation? *Indian Evidence.*
- Bates, W &Kahle, K. (2009). Why do US firms hold so much more cash than they used to? *The Journal of Finance* 64(5). DOI:10.2139/ssrn.927962
- Chadha, S., & Sharma, A. K. (2016). An empirical study on capital structure in Indian manufacturing sector. *Global Business Review.*
- Chatterjee, S. and Eyigungor, B., (2022). The Firm Size-Leverage Relationship
- and Its Implications for Entry and Business Concentration. *Review of economics dynamics. 48*(3).
- Dewi, S. (2016). Analysis of CAR, ROA, LDR, and company size to profitability bank listed on the stock exchange. *Jurnul Ilmliah.* 2(2).
- Devi, A., Devi, S. (2014), Determinants of firms' profitability in Pakistan. *Research Journal of Finance and Accounting.*
- Dilawar Ahmad Bhut and Anil K Bhut, (2023). Does Firm Size Influence Leverage? Evidence from India. *Global Business Revie*w 24(3):097215091989161
- Noordin, F., & Kassim, S., (2016). Proceedings of the 2nd *Advances in Business Research International Conference.*
- Bayazovna, G. N., (2023). The share of world countries in the textile industry and the importance of marketing in its development. *Economy Journal UZ.*
- Gupta, M. C. (1969). The effect of size, growth, and industry on the financial structure of manufacturing companies. *Journal of Finance, American Finance Association*, 24(3), 517-529, June.
- Handoo, A., & Sharma, K. (2014). A study on determinants of capital structure in India. *IIMB management review.* 26(3).
- Hanafi, M.M., Halim, A. (2007), *Financial Statement Analysis.* 3rd Edition. Yogyakarta.
- Irfan Ali (2011). Determinants of Capital Structure: Empirical Evidence from Pakistan
- Ismail Kalash, (2021). The financial leverage–financial performance relationship in the emerging market of Turkey: the role of financial distress risk and currency crisis.

- Long and Ileen B. Malitz, (1985). Investment Patterns and Financial Leverage. University of Chicago Press.
- Memon, J. A., Aziz, A., & Qayyum, M. (2020). The Rise and Fall of Pakistan's Textile Industry: An Analytical View.
- Pakistan Stock Exchange/ Financial Reports (Financials.psx.com.pk)
- Singapurwoko, A., El-Wahid, M.S.M. (2011). The impact of financial leverage to profitability study of non-financial companies listed in Indonesia stock exchange. *European Journal of Economics, Finance, and Administrative Sciences.*
- Tim O, L, Pinkowitz, R., S., & Rohan Williamson (2018). The Determinants and implications of corporate cash holdings. *Journal of Financial Economics,* Elsevier, 52(1), 3-46.