



Research Article

# Impact of capital structure and firm's performance on market competitiveness: Evidence from Pakistan textile sector

Asad Javed<sup>1</sup>, Syed Muhammad Ahmad Hassan Gillani<sup>2\*</sup>, Khadija Sarwar<sup>3</sup>,  
Aiza Khan<sup>4</sup>

<sup>1,2,3,4</sup>Lyallpur Business School, Government College University, Faisalabad, Pakistan

\*Corresponding Author email: [ahmadgillani@gcuf.edu.pk](mailto:ahmadgillani@gcuf.edu.pk)

## Keywords

Capital Structure;  
Firm  
Performance;  
Market  
Competitiveness

## ABSTRACT

Capital structure is the mixture of debt and equity financing that a company uses to fund its operational activities and investment activities. This financing influences a firm's risk profile and capacity to respond to the market competition and market pressures, directly affecting its financial health and competitive standing. In this paper, we examine the impact of capital structure on firm performance and market competitiveness, specifically within Pakistan textile sector. The research explains how different financial metrics influence market concentration, measured by the Herfindahl-Hirschman index (HHI). Empirical results reveal that DAR and ROA have a positive impact, statistically significant effect on market competitiveness, that demonstrating the increased leverage and asset efficiency can enhance a firm's competitiveness. Generalization of the results may be limited which mean that the future research is required to study the phenomenon in multiple industries and regions, other than the core main variables, the use of other variables could enhance a better insight about the market competitiveness.

Submitted:  
29 July 2024

Revised:  
30 August 2024

Accepted:  
07 September 2024

## 1. INTRODUCTION

Capital policy is a key issue in dealing with business competition at the level of a single country as well as international competition (Thi Viet Nguyen et al., 2021). The policy of the recently released. this policy is to address the current business climate as many companies are struggling for the global economic crisis that follows the Covid-19 pandemic that has embattled nearly 200 countries worldwide. This factor makes the competition of business competition so tight and tough that it also affects the overall performance of a company. Hence, use of the business strategy is mandatory for firms to cope with the competition, both locally and globally. Capital Policy is the nature of capital structure i.e. debt and owner equity form the composition of the capital structure. the capital structure relates directly to firm performance, which is an important issue to the academics studying the performance and capability of the firm. One important point in determining firm value of tax saving and tax shield, capital structure (Modigliani & Miller, 1963). The relationship between capital structure and firm performance, and thus, competitiveness can never be overlooked in the arena of volatile business competition of our time, even though reliable scholarly



papers have established that long time ago(Guney et al., 2011; Kovenock & Phillips, 1995; Myers, 2001).

Firms will be force to takeover debt to gain market power and rivals then bid up the price of this strategically valuable resource which will require the bidder to access the capital market to raise debt to pre-empt others to do so but too much of debt will ruin the failure in business competition (Myers & Majluf, 1984). This is a failure because you are not able to produce, and price optimize with your market competitors. If a company fails, a company then finds itself in a position where it must decide to either liquidate the assets of the company or pay off all of its debts. When the use of debt is too high, the claim to pay debts is also bigger so that the company will spend more cash to pay debts than for investment purpose and reason.

However, if the firm can profit from using its debt to produce high returns, they will receive tax benefits, as well as commitments, by shifting some costs to share-holders decreases competitive pressures, which will increase economic performance for the company (Myers, 2001). As there are a capital structure is a significant and fundamental from of financing policy of corporation also for investors therefore the capital structure study in emerging country is very imminent (Myers, 2001). This funding policy e.g whether the board will restrict cash to be distributed in the form of dividends or not, therefore becomes significant information for the investors as they must make decisions based on this. Information asymmetry will affect investors and businesses, such as investors make wrong decision due to information asymmetry, leading to poor business health and bad goodwill. In the stock market, the correct investment decision rate has an impact on the increase in market competitiveness of a company, in that sense, investors need a lot of accurate information on the stock market that is related to funding policy of a company that is traded on the stock market.

However, studies on the competitive market and its various dimensions are very limited and low when it comes to capital structure competitiveness. Previous studies, for example,(Fosu, 2013; Guney et al., 2011; Kovenock & Phillips, 1995) found the link and the effect of competitive elements with the capital structure of companies are linear and nonlinear. Capital structure has a significant non-linear effect on company competitiveness, where the effect of capital structure shows a reversed U shape. Similar research in Pakistan has largely been absent especially when examining the influence of capital structure on firm performance and market competitiveness of firm. As a result, the issue in this research is the impact of capital structure influence on firm performance on the company's market competitiveness.

## **2. LITERATURE REVIEW**

It is the responsibility of a financial manager in a company as well as his duty to make investment decisions within the business and he is directly and indirectly concerned with it. Those decisions are also required in addition to investment decisions that are the decision made by the financial manager related to determining the method and sources of financing the organization, the level of dividend policy to be followed and involved rules

and regulation. These policies, rules and regulation are created to promotions business activities and a company market competitiveness to face competition in the market. Capital structure is the proportion of debt and equity of which a company's total capital is made up. Some items of a company's capital structure may include publicly issued securities, bonds, and other commercial debt creating liabilities. Publicly issued securities of a company can include bond issues, common stock, and preference shares. There are different types of ratios used to calculate the capital structure ratio such as debt to total asset ratio, equity to total asset ratio, and debt to equity ratio.

Firms do not have predetermined capital structure objectives and targets. (Myers & Majluf, 1984). Nevertheless, if a company requires to mobilize capital from the outside, it will recast securities from the least risk to the greatest risk to prioritize the capital. The modern capital structure theory was originated in the 1960s, firstly introduced by Modigliani and Merton Miller who are renowned in the world of finance as MM. In his times, the theory had many criticisms during the publication period of Esping and Andersen for example the contradiction of his research presented by (O'brien, 2003). The next year, MM wrote a piece in the Journal defending his 1958 theory by relaxing the assumption and restrictions that there are no taxes on the income of the corporation.

Regarding corporate income tax, MM concludes that the use of debt benefits a firm, because it comes as cost of interest, which cause decrease in tax liabilities, so it means, a firm should borrow more and more amounts of debt because debt is the cheapest form of finance, and it is easiest act that provides capital structure change. Similarly, in cases with low concentration and unchallenged by technology, a firm may commit more resources to rent seeking and still compete effectively in the market and as well as increase their market power by raising the leverage ratio (Kovenock & Phillips, 1995). The performance of a company is a crucial resource that is crucial to the stability of a firm in the business activities execution. Firm Performance is a measure of an organization's ability to utilize material as well as human resources (HR) to fulfill its mission and goals. When considering a firm efficiency and its share in the different sectors, to assess how well the activities and consumption task are used to accomplish the task (Hau NGUYEN et al., 2021). On the other hand, it is also indicated by Truong and Tran that input and output resources used in the business operations and activities are fit with the firm performance. Therefore, if a company management must compete with another company, we need to improve the competitiveness of a company to the effectiveness of a firm continues to remain high, as be diligent as possible to generate output relate to all calculated input.

There are vast differences in the measurement of firm performance, in our study we would consider financial ratios just like return on equity, return on assets etc. as a measure of a firm's performance. This metric measures the enterprise resources used by owners of capital to earn net income after tax. The more return on equity was gotten by a company, then this can increase the market competitiveness of a company, so that the company in order to survive and be stable.

The competitiveness of the market determines the degree to which a company is competitive with its operating environment and circumstances. Competitive advantage a

company distinguishes itself from the other competitors in the market (Potjanajaruwit, 2018). Market competitiveness will result from product competitiveness in the market, as research by (Giroud et al., 2009; Ko et al., 2016; Tian & Twite, 2011) that product competitiveness will reflect the achievement of business goals and objectives, meaning the need for quality products so that the product has a high enough competitiveness level in the market and is able to maintain the popularity of these products. Due to the increasing number of market saturation, businesses need to compete in an industry to contend in a dynamic market must be development, research, invention, innovation and promotion which is aimed at an analytical framework focusing on the concept of competitiveness. A large capital required or needed funding companies which funding policy of a company that is an important factor to encourage creation of higher competitive companies in market competitiveness. The use of large capital to expand the product and develop it with business, increase the scale of business, increase investment in the ability to promote capital, through such help enterprises to an absolute strong competitive position in the market.

By using debt to finance, the Company's leverage will increase so that the funding style and policy will lead to an increase of the Company's leverage. The level of leverage will impact the competitiveness of companies more in highly concentrated industries and markets (Li & Wang, 2019). With a balance of growing or increasing debt ratio means, essentially that the company is committed to go proactively and vigorously grow in the market and hence, a balance between a debt and an equity must be done for the company to meet the needed result. This will enable a company to use debt to conquer and dominate in a controverted market and most likely if borrowed the company would have a competitive edge. Low debt companies had lower sales and market share increase as compared to high debt companies when they had a very high level of increase debt level as compared to Year - 1, Year - 2, and Year - 3 (Li & Wang, 2019). On the other hand, there is a hardly solid proof that wealthy companies can use their larger cash balances to further raise the market share of a firm by increasing the firm's sales network and by carrying out research, innovation as well as development activities.

Highly leveraged businesses are quite committed as they do not have much of a choice to grow their top line aggressively by creating product demand and entering new market opportunities that increase their ability to compete. Which can lead to increase in company income and can keep investor confidence as higher return or safe return. Debt in turn would be used in the capital structure of a business to multiply the leverage of the business bottom line conversions and profitability. Provide empirical evidence for the product market effect on corporate financial decisions. It is also argued that an increase in the debt ratio due to the leverage policy of a company is imperative as it can undermine the competitiveness of companies (Grullon et al., 2006). Market of the product will create a level of company for a competition, so the company which has a good competing, they can enlarge the market of its product. The Strategic commitment theory also states that in case of manufacturing firms excess leverage will be beneficial for product-market competitiveness.

Different proxies and assumptions which can be used to measure capital structure, and this study will use different ratios as capital structure proxies such as debt to asset ratio, debt to equity ratio and current ratio. The difference in the quarter-to-quarter sales growth rate of larger firms that heavily use debt versus the rest of the companies is minus 1.3 % adjusted for industry level (Campello, 2003). In a way, this makes sense after all, if the company must pay off the debt first its market competitiveness will obviously decrease. On the other hand, the research of (Kalhor & Rooker, 2017) who studied the connection between product market competition and capital structure of us listed companies presents a few empirical studies and findings. Conclusions: The results are that an increase in the competitiveness of a US company is directly positively related to the use of leverage in the USA, and that since 2008, the competition has increased. Capital structure is the only determinant that has a significantly positive effect on market competitiveness (Thi Viet Nguyen et al., 2021).

The performance of the company owned by the company with the level of profitability generated by the company on its / her business so that the business company can measure the profitability of the company by using the mechanism for returning assets (return on assets) and returning equity (return on equity). This indicator is a conventional and traditional financial accounting ratio compiled from the statements of the balance sheet and income statement that has widely used by all researchers such as (Ang et al., 2000; Mehran & Carroll, 1995; Nurhayati et al., 2021; Thi Viet Nguyen et al., 2021) The Next are Normalize ROA is earnings expressed as profits including extraordinary income, except negative profits less, minus fixed assets because ROA is the result of the performance of the company in using its assets for the company for periods of time within the relevant year (Nurhayati et al., 2021). Therefore, return on assets demonstrates how effectively the management uses the company's assets to generate a profit out of each dollar of the company's assets invested during the year.

Return on equity (ROE) helps in finding out whether the company is doing better within the same sector (Bathia et al., 2020). In contrast, return on equity (ROE) of a company reflects how much of each dollar equity capital the company makes profit in its financial structure (Liu et al., 2022). Return on equity (ROE) is essentially the profit available to shareholders over a financial year and the better technology company's management is at making money from its equity for its shareholders the higher the ROE it is going to be able to generate. Performance is best measured, simply as a function of return on equity (ROE), according to the shareholder perspective (Brown & Caylor, 2009). Firms with higher ROE have more commitment and opportunity to promote their business and move towards developing their operations, which will be reflected in their stronger responsiveness to market conditions and more fierce competition.

Basically, signaling theory is related to lessening of information asymmetry between one party and another party (Market et al., 1973; Spence, 2002). Signaling theory explains how management success and failure signals are communicated to owners and stakeholders, and signaling theory is also associated with information asymmetry (Connelly et al., 2011). Management has additional information on the company compared to the owners and investors, and this information relates to projections regarding future company policies.

Company information is worth reading through annual financial reporting which is required to be published by management within a company as part of the duties and responsibilities of its management. This performance signal indicates to investors that the company is in good health and ready to expand (i.e. invest in new projects). The signal theory suggests that the market and the investors recognize some information as something that should lead them to alter their valuation of the company. This could increase the firm returns on equity (ROE) and returns on assets (ROA) and hence attract the interest of the investor. Helps to be competitive in the market.

Capital Structure is quite merely the system of a company that exhibits concerning the monetary strategy and place of the entity regarding the employment of debt and equity. In theory, this means huge companies will have more huge debt than small ones and hence giant corporations have a higher likelihood of having more investment opportunities to expand. Large companies will obtain easier finance for growth and development (Ebel Ezeoha, 2008). This means that the larger firms have greater resources available to them to spend on product development and market development and hence the more competitive the firm will be. Due to this fact the more assets firm have more opportunity to grow or develop and have a higher competitiveness in market. The banks also support these conditions who are always more generous with their financial support for the big and bigger companies.

The structure of Capital in Indian microfinance institutions has vital implications for their financial performance and social performance as well as market competitiveness. If done well, tuning the mix of debt and equity will be a win-win for MFIs helping them to operate more efficiently, be in a better financial position and create more impact on the ground, making them more resilient and competitive players in the industry (Chauhan et al., 2024). India is heavily influenced by its working capital management which has a significant bearing on their financial performance. This post outlines the main inventory, receivables, and payables management techniques to drive liquidity, lower costs, and eventually a more profitable balance sheet for manufacturers (Garg & Singh, 2024). The interactions among capital structure, equity ownership, and corporate performance in the context of Indian manufacturing firms are complex. Another advantage is that the right mixture of debt & equity fund can improve the financial stability and operational efficiency, and thus enabling profit maximization (Pandey & Sahu, 2023).

It can thus be argued that the best ownership structure depends on the exact situation of the firm in terms of industry, size, and the market environment (Bhakar et al., 2024). The relationships between characteristics of capital structure dynamics and bank performance of listed banks in India. This research, by examining the interplay of debt vs. equity choices, showcases the impact of capital structure decisions on profitability, risk minimization and financial soundness in general (Sofi & Baig, 2024). Impact on capital structure decisions, preserving executives to hold firms flexible and financially safe to promote longer-term growth and profitability (Sekhar et al., 2024).

Size of the Company is an important determinant of the extent of business diversification for a company in a market (Ebel Ezeoha, 2008). Therefore, diversification of business is one

of the basic business approaches, but also belongs to the category of business development that needs large financing, and this is where large firms have more opportunities to make further, and larger, investments and to make more research and development. This will improve the competitiveness of the product and market and small companies as the firm diversifies its businesses. The objective of this study is to provide a concrete evidence of capital structure and its relationship with firm performance and market competitiveness. Furthermore, this paper speculates, according to the arguments and literature review outlined above, that there has been an over corporatization of capital structure in company performance and market competitiveness. This study controls company size and company age as intervening variables in market competitiveness. Thus, the following formulation of the research hypotheses is used such as:

H1= The debt-to-asset ratio (DAR) has a positive effect on market competitiveness.

H2= The debt-to-equity ratio (DER) has a positive effect on market competitiveness.

H3= The Current liquidity has a positive effect on market competitiveness.

H4= The return on assets (ROA) has a positively impact by market competitiveness.

H5= The Return on equity (ROE) has a positively impact by market competitiveness.

H6= The Market competitiveness is positively impact by firm size.

H7= The Market competitiveness is positively impact by firm age.

### 3. METHODS

This study utilizes quantitative data obtained from textile manufacturing companies listed on the Pakistan Stock Exchange between 2019 and 2023. The data is sourced from audited annual financial statements available on the Pakistan Stock Exchange website. The sample is chosen based on specific predefined criteria essential for analysis. The research incorporates variables such as capital structure, firm performance, firm size, firm age, and market competitiveness see Table No 1. The Herfindahl Hirschman Index, serving as a measure of market concentration, is employed to evaluate market competitiveness within textile manufacturing firms as mentioned in Table No 1. Data analysis is conducted in alignment with the research objectives, employing a dynamic model to explore the factors influencing the competitiveness index (HHI). This analysis was done following the research framework elucidated by (Mitani, 2014; Thi Viet Nguyen et al., 2021) examined the impact of a company capital structure to the firm's performance and market competitiveness.

$$HHI_{it} = \beta_0 + \beta_1 DAR_{it} + \beta_2 DER_{it} + \beta_3 CR_{it} + \beta_4 ROA_{it} + \beta_5 ROE_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \varepsilon_{it}$$

**Table 1.** Description and Framework of variables:

Variable Category	Variable	Expected	Definition
Dependent Variable	Competitive Enterprise (CE)		$CE = \sum (X_i / \sum X_j)^2$ ; $X_i$ – Sales of firm; $X_j$ – Sales of industry
Independent variable	DAR	+	DAR = total liabilities/total assets
	DER	+	DER = total liabilities/equity
	ROA	+	ROA = EAT/Total Assets
	ROE	+	ROE = EAT/Equity

Variable Category	Variable	Expected	Definition
	CR	+	CR = Current Assets/Current Liabilities
Control Variable	Firm size	+	Log total assets
	Firm age	+	years

whence  $\beta$  stands for the coefficient,  $\varepsilon$  is the error term, and  $i, t$  is the industry  $i$  at year  $t$ .

**Design of the study Sample** This study used a purposive sampling approach to gather data from financial report issuers for the period 2019-2023. The collected data was then entered into software STATA for analysis. The analysis included the use of the Fixed Effect Model (FEM) and Random Effect Model (REM). To check which model is better between FEM and REM for the research data, the actual data were used for checking through Chow test and Hausman test (Hausman, 1978). Table 1 summarizes the variables used in this study.

**Table 2.** Descriptive statistics:

Variable Name	N	Minimum	Maximum	Mean	Std. Deviation
HHI	160	0.097	0.115	0.103	0.006
DAR	160	0	0.341	0.102	0.078
DER	160	-2.566	3.304	0.256	0.414
ROA	160	-0.381	0.214	0.024	0.081
ROE	160	-7.093	1.364	0.042	0.597
CR	160	0.002	28.113	1.573	2.628
firm size	160	1	2	1.100	0.301
firm age	160	28	77	44.369	13.194
Valid N	160				

## 4. RESULTS

The descriptive statistics in the provided dataset offer a comprehensive overview of the variables under study as mentioned in Table No 2. The variables include the Herfindahl-Hirschman Index (HHI), Debt-to-Asset Ratio (DAR), Debt-to-Equity Ratio (DER), Return on Assets (ROA), Return on Equity (ROE), Current Ratio (CR), firm size (Firm size), and firm age (Firm age). Herfindahl-Hirschman Index (HHI) is with 160 observations, the average mean of HHI is 0.103 or 10.3%, indicating moderate concentration in the market. The standard deviation is 0.006 or 0.6%, with the highest value is 0.115 or 11.5% and lowest value is 0.097 or 9.7%.the average mean of Debt-to-Asset Ratio (DAR) is 0.102 or 10.2% with a higher standard deviation of 0.078 or 7.8%, with the highest value is 0.341 or 34.1% and lowest value is 0 or 0%. This suggests variability in firms' leverage.

The average mean of Debt-to-Equity Ratio (DER) is 0.256 or 25.6% with a standard deviation of 0.414 or 41.4%, with the highest value is 3.304 or 330.4% and lowest value is -2.566 or -256.6%. The negative minimum value indicates some firms may have more equity than debt. the average mean of Return on Assets (ROA) is 0.024 or 2.4% with a standard deviation of 0.081 or 8.1%, with the highest value is 0.214 or 21.4% and the lowest value is -0.381 or -38.1%. Which showing significant variability in firms' profitability. The average mean of Return on Equity (ROE) is 0.042 or 4.2%, with a standard deviation of 0.597 or 59.7%, indicating a wide dispersion. With the highest value is 1.364 or 136.4% and the lowest value is -7.093 or 709.3%. the average mean of Current Ratio (CR) is 1.573 or 157.3%, with a standard deviation of 2.628 or 262.8%, with the highest value of 28.113 or 2811.3% and the lowest value

is 0.002 or 0.2%, which showing high variability in liquidity. The average mean of Firm Size (firm size) is 1.1 or 110%, with a standard deviation of 0.301 or 30.1%, with the highest value of 2 or 200% and the lowest value is 1 or 100%. The average mean of Firm Age (firm age) is 44.369 years with a standard deviation of 13.194, ranging from 28 to 77 years.

Pairwise Correlations shows the correlation matrix highlights the relationships between the variables: Variables which show Positive Correlations are HHI with ROA (0.122), CR (0.127), and (0.068) suggest that market concentration is slightly associated with profitability and liquidity. DAR with ROA (0.243\*), firm size (0.160\*), and DER (0.520\*) indicate that leverage is positively significantly associated with firm size and profitability. ROA with ROE (0.234\*), CR (0.268\*), suggesting that higher returns on assets are associated with higher returns on equity and better liquidity. Variables which show Negative Correlations are DER with ROE (-0.630\*), showing a strong inverse relationship. firm age with ROA (-0.156\*), suggesting older firms may have lower returns on assets.

**Table 3.** Panel data regression output:

HHI	Coefficient	Std. Error	t-Value	p-Value	[95%conf Interval]	Sig	
DAR	0.066	0.018	3.730	0.000	0.031	0.101	***
DER	-0.006	0.003	-1.710	0.091	-0.012	0.001	*
ROA	0.029	0.011	2.590	0.011	0.007	0.051	**
ROE	-0.003	0.002	-1.300	0.196	-0.007	0.001	
CR	0.001	0.000	2.560	0.009	0.000	0.001	***
SIZE	-0.002	0.005	-0.510	0.609	-0.012	0.007	
AGE	-0.001	0.000	-3.500	0.001	-0.002	-0.001	***
Constant	0.156	0.016	9.570	0.000	0.124	0.189	***

\*\*\* $P < 0.01$ , \*\* $p < 0.05$ , \* $P < 0.1$

The regression results or fixed effects model shows in Table No 3 that how each variable affects HHI while controlling for unobserved heterogeneity:

Debt-to-Asset Ratio (DAR) has a positive and significant effect on HHI (0.066,  $p < 0.01$ ), which indicating that there are higher debt levels are associated with the increased market concentration. Debt-to-Equity Ratio (DER) has a negative and significant effect on HHI (-0.006,  $p < 0.1$ ), which indicating that there are higher equity levels relative to debt are linked to the lower market concentration. Return on Assets (ROA) has a positive and significant effect on HHI (0.029,  $p < 0.05$ ), which indicating that more profitable firms tend to operate in more concentration markets. Current Ratio (CR) has a positive and significant effect on HHI (0.001,  $p < 0.01$ ), which suggesting that firms with higher liquidity levels are more likely to be in a more concentration markets. Firm Age (firm age) has a negative and significant effect on HHI (-0.001,  $p < 0.01$ ), which indicating that the older firms are associated with less concentrated markets. The fixed model explains 24.2% of the variance in HHI (R-squared = 0.242).

## 5. DISCUSSION

This research investigated impact of capital structure and firm's performance on market competitiveness, in the perspective of textile manufacturing sector of Pakistan for the years from 2019 to 2023. The study employs both fixed and random effects models to obtain

deeper insights about the effects of different financial ratios on Herfindahl-Hirschman Index (HHI), a measure of market competitiveness. The discussion then considers interpretation of these results in relation to the literature, as well as theoretical and practical implications. The findings suggest that some financial ratios have a direct significant effect on market competition (HHI). More concretely, the Debt-to-Asset Ratio (DAR) and Return on Assets (ROA) express positive and statistically significant effects on HHI, while the Debt-to-Equity Ratio (DER) is found to have a negative impact. HHI is significantly influenced by Current Ratio (CR), and firm age, with a positive effect and a negative effect, respectively.

As a final note, we highlight that the effect of DAR on HHI could suggest that market power increases with leverage but in terms of assets. This evidence is consistent with the hypothesis that increased indebtedness provides a cash reserve which enables firms to exercise improved market power through promotion of innovative moves and competitive actions. debt-to-equity ratio: Likewise in the case of DER too, a negative relationship with HHI indicates that higher leverage (debt to equity ratio) levels lower market competitiveness. One of these reasons can be linked to financial distress and greater risks of bankruptcy due to the burden of too much debt which prevents effective competition in markets. Return on Assets: The positive coefficient of return on assets (ROA) which is significant at 5 % confidence level and greater denoted competition quality through efficient utilization of its assets. Thus, the businesses that are carrying a higher earning potential and who earn a better return on assets is more prone to pour back profits in competitive strategies resulting them safe hands over competition. current ratio has a positive relation with HHI which implies that market competitiveness is heavily influenced by liquidity.

Firms with more liquidity manage more safely short-term debt obligations and have more freedom, within which to invest in profitable projects which further enhance their competitive position. Firm Age has the negative value of firm age on HHI can imply that older firms, probably afflicted by bureaucratic inertia or dated practices, face difficulty in continuing their competitiveness against more youthful or more adaptable firms. This result is in harmony with research that has found that long-established firms might struggle to adjust to changing market conditions.

The present investigation is a part of this broader literature on capital structure and market competitiveness in two ways. For example, the positive relationship between DAR and market competitiveness conforms to (Li & Wang, 2019) claim that leverage tones firm market competitive position by facilitating aggressive competitive strategies. Likewise, the detrimental effect of DER is in consonance with the result of (Grullon et al., 2006), which indicate that high level of leverage could undermine the competitive position of firm because of increased financial risks. Nevertheless, this paper also has some notable departures. For instance, (Campello, 2003) argued that high debt usage usually harms competitiveness whilst in this research we show that DAR promotes increased HHI, demonstrating a more nuanced interpretation of the different debt measures in competitive dynamics. Such dissonance points toward the need for deeper studies that explore how different leverage measures relate to market power.

Theoretical Contribution of This research enriches the theoretical understanding on the way that the capital structure to affect the market competitiveness. This implies that various parts of capital structure. Such nuanced perspective deviates with the one-dimensional view of leverage and competitiveness and calls for a different lens in examining financial ratios in future research concerns. Practical Implications of the present study contributes toward providing owners and managers of SMEs with useful guidance on efficient financial management strategies to improve their market competitiveness. Companies can improve their capital structure by balancing these two by trying to lower their financial risks as much as possible by adding more equity into their capital mix but still utilizing debts to finance growth and be more competitive. In addition, staying liquid is vital to competitiveness, especially in volatile environments.

Policy Implications of the effect of capital structure on the market competitiveness is always the concern of regulators since capital structure impinges on other aspects of corporate finance considering which policymakers should examine the counterproductive regulations. Promoting transparency and healthy financial management can lead to the efficient management of companies' leverage, which contributes to the overall stability and competitiveness of the market. Although the study offers key findings, it also has limitations. The sample being textile manufacturing sector in Pakistan may limit the generalizability of the findings to other industries or regions. The current study has potential implications for research on SES-health relationships in diverse sectors and cross-country validation and extension of the current findings may usefully follow in future research. Moreover, the analysis is largely quantitative in nature, which can be rigorous but may not fully capture non-quantifiable aspects affecting market competition, such as entrepreneurial or innovation potential of management and the regulatory environment. Qualitative methods may also be integrated in future research to ensure a fuller picture of the driving factors of market competitiveness. In the end, the study period (2019-2023) involved the impact of the unprecedented economic lockdowns in the wake of the COVID-19 shock. While this background context adds saliency, it also introduces a number of potentially confounding elements. Future research could apply longer periods in order to measure the impact of capital structure on firm performance while comparing the normal period with the crisis period in terms of time, thus leading to a comprehensive study related to capital structure on market competitiveness.

## **6. CONCLUSION**

To sum up, this study entirely investigates the effects practiced by the capital structure on firm performance and market competitiveness in the textile manufacturing sector of Pakistan from 2019 to 2023, while employing fixed and random effects models to test the effect of various financial indicators on Herfindahl-Hirschman Index (HHI). Results show that the impact of Debt-to-Asset Ratio (DAR) and Return on Assets (ROA) on market competitiveness makes a significant association thus it supports that greater leverage and better asset use give rise to lesser market competitiveness of the firm. The Debt-to-Equity Ratio (DER), on the other hand, is negative in terms of competitiveness, considering that too much debt compared to equity can harm the competitiveness of a firm. Furthermore,

the study suggests a beneficial effect of liquidity (CR) on competitiveness, but also the challenges that older firms face according to the negative impact that firm age have in the model. This evidence calls to attention the role of financial policy and over indebtedness management as a means of achieving a more competitive market positioning, with relevance for economic theory and practice. Nonetheless, with a reference to the textile sector in Pakistan, the findings may suggest that future research consider these differences along with other compounded factors such as innovation capacity and competitive strategies to examine how market competitiveness emerges in a more comprehensive manner across industries and regions.

### **Author Contributions:**

I, Syed Muhammad Ahmad Hassan Gillani helped my coauthor Asad Javed in conceptualized the main idea, aiming and helped in data analysis and review writeup. Asad Javed carried out a comprehensive literature review, developed the conceptual framework, and undertook data collection and completed paper write up. Ms Khadija Sarwar and Ms Aiza Khan offered significant contribution in the write up, referencing, proofreading, and offered valuable recommendations to improve the paper's quality.

### **Funding:**

There is no funding agency is involved, this publication is self-funded by authors

### **Institutional Review Board Statement:**

Not applicable in this study

### **Informed Consent Statement:**

This study is bases on secondary data so there is no data is obtained from human as primary data so there is no need of get any consent.

### **Data Availability Statement:**

Data is available and can be provided on demand.

### **Acknowledgement:**

I appreciate and acknowledge to my co-authors. Their collaboration and sustenance were important to the completion of this research.

### **Conflicts of Interest:**

I declare that the authors have no competing interests, or other interests that might be perceived to influence the results and/or discussion reported in this paper.

### **References:**

Ang, J. S., Cole, R. A. & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance*, 55(1), 81–106. <https://doi.org/10.1111/0022-1082.00201>

- Bathia, D., Bouras, C., Demirer, R. & Gupta, R. (2020). Cross-border capital flows and return dynamics in emerging stock markets: Relative roles of equity and debt flows. *Journal of International Money and Finance*, 109, 102258.
- Bhakar, S., Sharma, P. & Kumar, S. (2024). Ownership Structure and Firm Performance: A Comprehensive Review and Empirical Analysis. *Journal of the Knowledge Economy*, 1–42.
- Brown, L. D. & Caylor, M. L. (2009). Corporate governance and firm operating performance. *Review of Quantitative Finance and Accounting*, 32, 129–144.
- Campello, M. (2003). Capital structure and product markets interactions: evidence from business cycles. *Journal of Financial Economics*, 68(3), 353–378.
- Chauhan, S., Verma, A. & Kumar, C. V. (2024). Effect of capital structure on the financial and social performance of Indian microfinance institutions. *FII Business Review*, 13(2), 243–256.
- Connelly, B. L., Certo, S. T., Ireland, R. D. & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67.
- Ebel Ezeoha, A. (2008). Firm size and corporate financial-leverage choice in a developing economy: Evidence from Nigeria. *Journal of Risk Finance*, 9(4), 351–364. <https://doi.org/10.1108/15265940810895016>
- Fosu, S. (2013). Capital structure, product market competition and firm performance: Evidence from South Africa. *The Quarterly Review of Economics and Finance*, 53(2), 140–151.
- Garg, M. C. & Singh, M. (2024). Does Working Capital Management Affect Financial Performance: Empirical Evidence of Indian Manufacturing Sector? *Journal of Operations and Strategic Planning*, 2516600X241245808.
- Giroud, X., Mueller, H. M., Phillips, G., Metrick, A., Bertrand, M., Pérez-González, F., Petersen, M., Philippon, T., Romano, R., Sadka, R., Schnabl, P., Schoar, A., Wolfenzon, D. & Wurgler, J. (2009). *NBER WORKING PAPER SERIES DOES CORPORATE GOVERNANCE MATTER IN COMPETITIVE INDUSTRIES? Does Corporate Governance Matter in Competitive Industries?* <http://www.nber.org/papers/w14877>
- Grullon, G., Kanatas, G. & Kumar, P. (2006). The impact of capital structure on advertising competition: An empirical study. *Journal of Business*, 79(6), 3101–3124. <https://doi.org/10.1086/508010>
- Guney, Y., Li, L. & Fairchild, R. (2011). The relationship between product market competition and capital structure in Chinese listed firms. *International Review of Financial Analysis*, 20(1), 41–51. <https://doi.org/10.1016/j.irfa.2010.10.003>
- Hau NGUYEN, V., Thu Cuc NGUYEN, T., Thu NGUYEN, V. & Tai, D. DO. (2021). Internal Factors Affecting Firm Performance: A Case Study in Vietnam. *Journal of Asian Finance*, 8(5), 303–314. <https://doi.org/10.13106/jafeb.2021.vol8.no5.0303>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251–1271.
- Kalhor, C. & Rooker, H. (2017). The relationship between capital structure and product market competition in US listed company [LUND University]. *International Review of Financial Analysis*, 20(1).
- Ko, H. cheung A., Tong, Y. J., Zhang, F. (Frank) & Zheng, G. (2016). Corporate governance, product market competition and managerial incentives: Evidence from four Pacific Basin countries. *Pacific Basin Finance Journal*, 40, 491–502. <https://doi.org/10.1016/j.pacfin.2016.10.009>
- Kovenock, D. & Phillips, G. M. (1995). *Capital Structure and Product-Market Rivalry: How Do We Reconcile Theory and Evidence?* <https://www.researchgate.net/publication/4725678>
- Li, L. & Wang, Z. (2019). How does capital structure change product-market competitiveness? Evidence from Chinese firms. *PLoS ONE*, 14(2). <https://doi.org/10.1371/journal.pone.0210618>

- Liu, Q., Qu, X., Wang, D., Abbas, J. & Mubeen, R. (2022). Product Market Competition and Firm Performance: Business Survival Through Innovation and Entrepreneurial Orientation Amid COVID-19 Financial Crisis. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.790923>
- Market, J., Author, S. & Spence, M. (1973). Job Market Signaling. In *Source: The Quarterly Journal of Economics* (Vol. 87, Issue 3).
- Mehran, H. & Carroll, W. E. (1995). ECONOMICS Executive compensation structure, ownership, and firm performance. In *JOURNAL+OF Fhancd ELSEVIER Journal of Financial Economics* (Vol. 38).
- Mitani, H. (2014). Capital structure and competitive position in product market. *International Review of Economics and Finance*, 29, 358–371. <https://doi.org/10.1016/j.iref.2013.06.009>
- Modigliani, F. & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American Economic Review*, 53(3), 433–443.
- Myers, S. C. (2001). Capital structure. *Journal of Economic Perspectives*, 15(2), 81–102.
- Myers, S. C. & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221.
- Nurhayati, I., Sudiyatno, B., Puspitasari, E. & Basiya, R. (2021). Moderating effect of firm performance on firm value: Evidence from Indonesia. *Problems and Perspectives in Management*, 19(3), 85–94. [https://doi.org/10.21511/ppm.19\(3\).2021.08](https://doi.org/10.21511/ppm.19(3).2021.08)
- O'brien, J. P. (2003). The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, 24(5), 415–431.
- Pandey, K. D. & Sahu, T. N. (2023). *Capital Structure, Equity Ownership and Corporate Performance: Evidence from Indian Manufacturing Firms*. Taylor & Francis.
- Potjanajaruwit, P. (2018). Competitive advantage effects on firm performance: a case study of startups in Thailand. *Journal of International Studies*, 11(3), 104–111. <https://doi.org/10.14254/2071-8330.2018/11-3/9>
- Sekhar, B. M. R., Jubi, M., Vaidyesh, M. & Raj, M. R. R. (2024). Capital Structure Determinants: A Case Study of Pharmaceutical Industry. *Educational Administration: Theory and Practice*, 30(5), 10329–10336.
- Sofi, T. R. & Baig, M. A. (2024). *An Empirical Analysis of Capital Structure Dynamics and Financial Performance in the Indian Banking Sector*.
- Spence, M. (2002). Signaling in Retrospect and the Informational Structure of Markets. In *The American Economic Review* (Vol. 92, Issue 3).
- Thi Viet Nguyen, N., Nguyen, C. T. K., Ho, P. T. M., Thi Nguyen, H. & Van Nguyen, D. (2021). How does capital structure affect firm's market competitiveness? *Cogent Economics & Finance*, 9(1), 2002501.
- Tian, G. Y. & Twite, G. (2011). Corporate governance, external market discipline and firm productivity. *Journal of Corporate Finance*, 17(3), 403–417.