Quarterly Management Science Archive Letter
Vol 1, Issue 4, 2024

The Impact of Financial Leverage on Firms Performance

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Abstract

This study examines the correlation between leverage and sales performance. Leverage is considered a crucial element in the realm of corporate finance, where a company's growth performance is evaluated by employing the logarithmic representation of its sales revenue. In order to ascertain the validity of our research findings, we took into account the fact that Pakistan possesses a significant number of enterprises, amounting to a total of 18,017. A comprehensive regression model was employed to ensure the model's impartiality and reliability, while also including all significant outcomes. The outcomes of this study are deemed noteworthy and reliable due to several compelling factors. There exists a notable negative correlation between leverage and sales performance, necessitating active engagement at every level of influence. This hyperlink is especially vital in relation to sales effectiveness. The decrease in sales income by 4% can be attributed to a simultaneous increase in the debt ratio by 10%. The debt ratio is calculated by dividing total commitments by total assets. Contrary to the commonly accepted notion that leverage has a substantial and contradictory influence on an organization's achievement, it is glaringly evident that loans are being utilised in a reckless manner. A successful leverage policy indicates that the business's performance has enhanced, rather than deteriorated. Considering this, the discoveries given in this study provoke significant inquiries. Based on the results, it is crucial for owners and managers to prioritise the efficient utilisation of leverage. This is due to the fact that improper utilisation of leverage greatly amplifies the likelihood of operational breakdown. Assuming all other factors stay unchanged, a higher debt-to-equity ratio suggests that banks are adopting a cautious strategy due to their apprehension about their ability to fulfil financial commitments. Moreover, restricting the accessibility of cash from external sources results in a decrease in competitiveness. The adverse consequences of an ill-advised leverage policy not only impede the growth potentials of other organisations, but also hinder their growth strategy. Financial market participants may interpret these findings as an additional cautionary signal. Providing external financing to firms lacking a clear capacity for expansion may heighten the risk

of default. Ultimately, governments may come to see that they may provide substantial economic stimulus to firms that employ leverage in a responsible manner. Furthermore, we examined the influence of leverage on the returns of assets. The second metric employed in this investigation was the return on assets. Considering that the regression results indicate a negligible influence of leverage on return on assets (ROA), this poses a challenge that necessitates additional examination. We advocate performing extra study to get a more in-depth understanding of the elements that contribute to the negative association between leverage and sales performance. Furthermore, for freshly founded organisations, we propose undertaking a detailed investigation of the variables as well as reevaluating the correlation. As an extra advice, we advocate using solutions that consider the entity's size and origin. Finally, we feel that the sample size and technique utilised in this study will serve as a stimulus for future research, particularly in the assessment of the impact that corporate finance principles have on organisational performance in a variety of national and environmental situations.

Keywords: Financial Leverage, Firms Performance, corporate finance.

Introduction

Commercial loans are crucial in bank-controlled financial systems, like the one in Pakistan, as they provide capital to enterprises that obtain finance from multiple sources. The banking sector in Pakistan experienced significant growth following the successful privatisation of the industry in 2002. Neither in the future nor at any point in time. Pakistan's economy is receiving heightened lending support from financial institutions. From 2003 to 2016, the growth rate of business loans in Pakistan saw fluctuations, reaching its highest point at 26.2% in 2008. The growth rate reached its highest point in 2008. As to data released by the State Bank of Pakistan, the aggregate sum of funds deposited by households in commercial banks reached an all-time high of over 5.5 billion rupees by the conclusion of 2017. Although interest rates were at their lowest, this occurrence occurred inexplicably. The total deposits were comprised of 57.6% from residents' savings accounts.

Moreover, the majority of the entire investment is allocated to the structure of the terms, leading to a wide range of investment options. It is crucial to conduct research on the impact of financial leverage on the rapid growth of firms in post-crisis, post-transitional, and economies. We have thoroughly assessed the complete capabilities and conducted a comprehensive analysis of how financial leverage impacts both the growth and profitability of a company. The clear and

indisputable theoretical assumptions, along with numerous research findings on the influence of financial principles on business growth, serves as incentives for further experimental endeavours. The objective of this study is to offer valuable perspectives on essential policies that ought to be adopted to promote economic progress. As far as we know, there has been no significant research conducted on the correlation between financial leverage and the growth effect tactics employed by organisations in Pakistan. Considering this, we are of the opinion that the article has the capacity to aid in the development of a comprehensive framework for the organization's growth, so greatly enhancing the article's worth. In order to achieve this, we utilise data acquired from the vast majority of businesses operating in Pakistan from 2008 to 2016. The primary objective of this essay is to examine the feasibility and consequences of utilising leverage to facilitate a company's expansion in atypical conditions.

Moreover, the article will delineate a framework for establishing appropriate incentives to foster growth. Consequently, the remaining sections of this book are structured in the following way: The subsequent section provides a concise overview of pertinent studies, particularly those investigating the influence of capital structure on business performance. Section 3 comprises the econometric estimation model, an examination of the regression variables, and a clarification of the sample structure. The fourth section provides the results and significant observations regarding the characteristics of the obtained association. Section 5 serves as the ultimate segment, encompassing concluding remarks and proposals for future activities. The anticipated results have the capacity to contribute to the extensive corpus of research and understanding on the use of corporate finance concepts in various scenarios. If there is convincing evidence that leverage policies negatively affect a company's sales or profitability performance, further investigation should be undertaken.

Literature Review

Although capital structure selections require thorough deliberation, the firm's continuous pursuit and responsibility to maximise revenues necessitate a concentration on the most essential activities. The current enhancement in capital structure has led to a more robust correlation between capital structure and profitability. The bond between these individuals has intensified. Ensuring the firm's profitability is a significant undertaking. Profitability is not only a catalyst for corporate growth, but it is also an essential requirement for a company's survival. Incorporating debt into the company's capital structure will boost its profitability, assuming all other variables

remain constant, due to the tax deductibility of interest payments on debt. Financial leverage provides firms with tax advantages, but it also amplifies the likelihood of default for lending institutions such as banks, credit unions, and private lenders. Financial leverage is a prominent factor that has a substantial influence on profitability and is widely acknowledged as a crucial concern. At the corporate level, management evaluates return on equity (ROE) using three metrics: (1) profit margin, which assesses the earnings generated from each unit of sales (also referred to as net income/sales); (2) asset turnover, which measures the sales generated from each unit of assets employed; and (3) financial leverage, which quantifies the amount of equity used to finance assets (Higgins, 2009). Profit margin, asset turnover, and financial leverage define each of these stages.

An technique that involves taking risks utilises financial leverage to enhance the anticipated return for the owner. Leverage, in finance, is the act of replacing owner equity with debt financing that has fixed costs, leading to an increase in fixed interest expenses. In the realm of finance, leverage serves as a quintessential illustration of a double-edged sword since it amplifies the owners' vulnerability to risk while also increasing their potential for profit. In this context, a crucial concern in growth management is the identification of the appropriate degree of financial leverage for each of their respective companies. Since the influential study conducted by Modigliani and Miller in 1958, which demonstrated that capital structure has no significant effect on corporate value, there has been continuous debate on this topic due to the many circumstances in which organisations function. The study conducted by Modigliani and Miller was published in 1958. Presently, there exists a plethora of knowledge on the discoveries of numerous research endeavours. These findings offer substantiation for the case to continue research in the appropriate field of study. Prior research in this subject has produced outcomes that are rather ambiguous. This is a result of the multitude of traits implicated.

Thorough research indicates that the outcomes can vary between favourable, neutral, or negative, depending on the specific industry, context, and geographical area. We offer a succinct synopsis that highlights the essential information for countries undergoing different phases of change. This is done to circumvent the need for performing an extensive literature review on the issue in order to study the subject area. The performance of a firm is primarily determined by the features of the industry in which it operates, as well as the impact of financial leverage on its success. In their study, Simerly and Li (2000) found a positive correlation between leverage and

growth performance in stable and low-dynamic environments. Conversely, they found that there is a negative correlation between leverage and growth success in dynamic situations. Multiple authors (Bei and Wijewardana, 2012; Makris, 2014; Gill et al., 2011) have found a positive correlation between financial leverage and business growth, contrary to expectations. This data refutes the idea that the two variables exhibit a negative correlation. Antoni and Chinaemerem (2012) did a study on Nigerian companies from 2004 to 2010, which is a crucial factor to consider when assessing the influence of capital structure on a company's expansion.

The researchers determined that the debt ratio, which measures the capital structure, had a substantial and adverse effect on the financial performance of these firms. The results align with the conclusions published by other researchers. Ebaid-El-Said (2009) conducted a study in Egypt, a country considered to be in a state of economic transition. This study exhibited numerous resemblances to the ongoing research. The study's findings indicated that capital structure decisions had a little effect on organisations' financial performance. Nevertheless, Salehi and Moradi (2015), Fosu (2013), and Ramli et al. (2019) failed to refute the hypothesis that capital structure enhances company performance. The research findings indicate that the capital structure decision had no discernible effect on the financial performance of the 64 analysed firms. In the context of a corporation, the phrase "capital structure" pertains to the proportion of short-term, long-term, and overall debt in relation to the organisation's total assets. Additional metrics employed to assess a company's financial performance encompass the return on assets, the return on equity, and the gross margin, which is the ratio of gross profit to total sales. In his study, Anton (2016) examined the influence of leverage on the expansion of Romanian businesses.

The study selected 63 Romanian companies that were listed on the Bucharest Stock Exchange between 2001 and 2011 as potential participants. Anton (2016) established a direct correlation between the use of debt and the expansion of a company. This conclusion was derived by examining the initial logarithmic disparity of income, assets, and the quantity of employees as variables that depend on other factors. In addition, Rajan and Zingales (1995) developed the conventional leverage measure, which was employed in the research. This statistic quantifies the proportion of the company's total liabilities to its total assets. Additionally, several control components were under consideration. Salehi and Moradi (2015) utilised data from Tehran's stock exchange to examine the influence of capital structure and product market competitiveness on the financial performance of companies listed on the platform. In this inquiry, the financial leverage

ratio is treated as the independent variable, while the asset return ratio is considered the dependent variable. The competitiveness of the product's market serves as a moderating factor in establishing the connection between dependent and independent variables.

The competition takes into consideration the proportion of the company's revenues that are allotted to the entire industry. Furthermore, alterations in year-to-year sales figures are employed as a control variable to ensure that the company's growth is taken into account. The study's findings suggest a positive correlation between utilising a high financial leverage ratio and achieving better financial success indicators. Shareholders and creditors are often advised to carefully evaluate the company's performance, including its success, debt, and financial leverage ratios. A higher proportion of a company's sales in the sector is likely to lead to a more effective utilisation of debt, hence enhancing profitability. In their study, Soumadi and Hayajneh (2012) constructed a framework to evaluate the influence of capital structure on the financial performance of Jordanian companies that are publicly traded and listed on the Amman Stock Exchange. The model was developed as a component of their research effort. In their study, Soumadi and Hayajneh (2012) employed return on equity and Tobin's Q as performance indicators. Financial leverage, which is the proportion of total liabilities to total assets, was one of the independent variables included in this investigation.

The model incorporates supplementary control variables. These factors consist of three variables: physical assets, quantified by dividing net fixed assets by total assets; company size, defined by the natural logarithm of total assets; and firm growth, calculated by accounting for the rate of change in the book value of total assets. The study's findings suggest that the influence of financial leverage on the performance of organisations is not distinguishable between those with high and low levels of financial leverage. In addition, the study's results indicated that there was no discernible disparity in performance between businesses with high and low growth rates in relation to financial leverage. Another aspect to consider is that Abor (2005) provides knowledge that is not just intriguing but also intricately interconnected. The main objective of this study was to assess the correlation between the capital structure and profitability of companies listed on the Ghana Stock Exchange (GSE) during a span of five years. Abor (2005) found a notable and favourable correlation between the proportion of short-term debt in capital structures and return on equity (ROE). Moreover, a negative correlation was found between the proportion of long-term

debt in the overall financial framework and the return on equity (ROE). Both relationships were shown to be statistically significant.

This information was revealed as part of a study aimed at investigating the influence of leverage ratios on profitability. The research specifically examined the earnings before interest and taxes (EBIT) to equity ratio. The study examined three forms of leverage: the ratio of short-term debt to liabilities, the ratio of long-term debt to liabilities, and the ratio of total debt to liabilities. Moreover, there exists a robust association between the comprehensive debt capital ratio and profitability. This correlation is quite meaningful. Hamouri et al. (2018) conducted a thorough literature analysis and found that there is a positive correlation between leverage and growth in sales and employment. They determined that there is no substantial correlation between leverage and asset development for companies listed on the Jordanian stock exchange. The study's findings on the Amman stock exchange indicate a positive correlation between sales growth and company size, as well as employment growth and firm size. By employing logarithmic differentials, the company successfully tracked its advancement in three domains: increase in assets, expansion of workforce, and growth in sales.

The financial leverage level was determined by calculating the ratio of total liabilities to total assets. The model additionally included the subsequent control variables: the company's size (represented by logarithms of total assets), its age (quantified by logarithms of firm age), the industry, the return on assets, and the current ratio. The objective of this concise study brief is to establish the foundation for future research on the utilisation of financial leverage as a potential driver for corporate growth in diverse industries, time frames, and circumstances. In the upcoming section, we will introduce the study hypothesis, which is derived from the main emphasis of prior research and our primary interest in the subject matter: A positive correlation exists between a company's financial leverage and its growth. The upcoming investigation should be regarded as an additional endeavour to enhance the research field and verify the associated notion..

Methodology

Sample Size

This study utilised a finely balanced panel collection, consisting of data from 18,017 continuously operational firms in Pakistan from 2008 to 2016. The information supplied is sourced from the financial records of both groups in Pakistan, which are situated within the country. Both the Federal Board of Revenue and the Security and Exchange Commission of Pakistan have equal

involvement. The study encompasses a grand total of 130,835 observations. The data is presented in a panel format, providing a chronological sequence that covers a period of three years. The sample's frequency distribution with respect to the industries is presented in Table 1.

Table 1

Activity (ACT)	Industry	Frequency	%	Cumulative %
1	Wood	442	2.44	2.46
2	Energy	80	0.45	2.78
3	Construction	709	3.92	6.83
4	Metal	147	0.82	7.62
5	Other production	2,129	11.81	19.71
6	Agriculture	883	4.91	24.61
7	Mining	89	0.48	25.07
8	Retail	2,767	15.37	40.44
9	Wholesale	3,064	17.02	57.45
10	Transport	843	4.69	62.12
11	Services	6,818	37.88	100.00
12	Other	46	0.26	7.86
	Total	18,017	100	

Variables

The criteria were selected based on measurements from a previous study.

- The quantification of a company's pace of growth can be achieved by analyzing its sales volume (in logarithmic numbers) and return on assets (ROA) ratio.
- The debt ratio, which represents the proportion of total debt to total assets, serves as an illustration of financial leverage.
- Independent variables: company size categorized as small, medium, or large; industry categorized as 1-12 as indicated in Table 1; binary variables indicating profitability (1 for profitable enterprises, 0 for unprofitable firms); and the time period encompassing the global financial crisis.

- Interactions: The use of financial leverage is influenced by the size of the company and the industry it operates in.
- Instrumental variable: the dependent variable is lagged by one order.

Table 2 provides a concise overview of the descriptive data for the primary variables.

Table 2

Variable	Obs	Mean	Std. Dev	Min	Max
LogINC	153,626	12.5968	2.2016	-4.6053	22.7418
INDBT	164,268	0.5913	0.3213	0	1
PROF	153,626	0.3101	0.4767	-30.48	0.9254
ENT	164,268	0.6728	0.4693	0	1
LRG	164,268	0.0472	0.2118	0	1
MID	164,268	0.1342	0.3407	0	1
SMLL	164,268	0.8188	0.3854	0	1

Econometrics Model

The model's functional form has been specified as follows for the purpose of estimation: The growth variable is computed by incorporating leverage, instrumental variables, control variables, interactions, and residuals. The estimation models are derived by utilizing the previously specified variables in the following manner:The equation (1) represents a regression model that examines the relationship between sales income and indebtedness. The dependent variable, logUNO, is determined by many independent variables. These are d.LogINC, INDBT, PROF, ENT, a series of dummy variables ACTdummyi, LRG, MID, and MID. The coefficients β0, β1, β2, β3, β4, β5, β6, and β7 represent the impact of each independent variable on the dependent variable. The term "Uit" refers to a certain group or entity.ROA - Indebtedness regression (ratio - ratio): The regression model for ROA is represented by the equation ROM = β0 + β1 ∗ d. ROA+ β2 ∗ INDBT + β3 ∗ PROF+ β4 ∗ ENT + ∑ β ∗ ACTdummy$i$ 11 i=1 + β5 ∗ LRG+ β6 ∗ MID+ β7 ∗ FNCRS+ β ∗ Uit (2).

Results

We employ the Stata 15 technique to estimate the model. We opt for the random effects model based on the appropriateness shown by the Hausman test (Prob chi2 = 0.1348). The regression analysis revealed the subsequent correlations:

Table 3

Variable	Coef.	Variable	Coef
LogINC D1	0.4817***	IINDBTen	0.0018***
	(0.0027)		(0.0005)
INDBT	-0.4086***	IINDBTppi	0.0006*
	(0.0305)		(0.0004)
ENT	0.3198***	IINDBTtnv	-0.0003*
	(0.0221)		(0.0001)
Energydummy2	0.8486*	IINDBTtr	-0.0004**
	(0.4874)		(0.0001)
Miningdummy8	0.6065*	IINDBTmid	-0.0011***
	(0.3248)		(0.0001)
Retaildummy9	0.9564***	ILRGgr	0.4288**
	(0.3711)		(0.2066)
Wholesaledummy10	0.3402**	IMIDen	-1.9958***
	(0.1532)		(0.6271)
Transportdummy11	0.5148**	IMIDppi	-0.6133**

	*		(0.2576)
	(0.1310)		
LRG	3.6474**	IMIDrud	-0.8736**
	*		(0.4342)
	(0.1038		
	)		
MID	2.0896***	IMIDtnm	-0.9564***
	*		(0.2571)
	(0.0495)		

Note: standard errors are in parentheses. *, ** and *** represent 10%, 5%
and 1% significance level respectively.

Table 3 displays statistics that possess noteworthy characteristics. Debt has a substantial and negative impact on an organization's growth (-.4086), and there is strong evidence to support this effect (p=0.000). Moreover, the impact is fairly significant. The impact of the corporation's size on growth is considerably smaller compared to the source of the entity, which is statistically significant. Nevertheless, the origin of the entity holds considerable statistical significance. The interdependencies of several sectors, including Energy, Mining, Retail, Wholesale, and Transportation, along with their magnitude and influence, greatly affect the slope coefficients of these industries. The calculation of the regression coefficient offers a convincing demonstration of the significant influence that leverage has on the efficacy of the sales function. Conversely, the relationship's course is completely contrary to what was anticipated, and in the subsequent part, we will examine the several factors contributing to this. The dimensions of the entity and its provenance are two control variables that impact the volume of sales. The control criteria with the lowest significance are those pertaining to profitability, industry characteristics, and financial crises.

Moreover, interactions are seldom significant, except for a few of notable instances. The instrumental variable representing the performance of delayed sales is anticipated to have a substantial influence on the overall structure. However, we utilise it to guarantee that the model possesses high quality. Regarding model quality, we employ diverse corrective measures and

thoroughly assess the quality of the panel set to guarantee that the results are unbiased and free from any violations. To account for the potential presence of omitted variable bias, the model was initially constructed by including a lagged dependent variable. This was done to minimise the potential impact of the bias. By employing a comprehensive standard error technique, one can fulfil the requirement of homoscedasticity. In order to examine the correlation between leverage and logarithmic sales value, a specialised form of analysis is necessary. Both the coefficient, which has a value of -0.4088, and the p-value, which is 0.000, are important components of this relationship. Based on the theoretical foundations, there exists a substantial and favourable correlation between leverage and successful business expansion. It would be preferable. The data, however, offer compelling evidence that our view is erroneous. The link between the sample of nearly all enterprises in the population and the usage of leverage is strongly negative, suggesting that leverage is generally unproductive.

The use of leverage is employed to mask the consequences of underperformance, rather than to enhance growth performance. Given this finding, it is anticipated that certain measures would be implemented to rectify the flawed strategy of utilising abilities at both the organisational and corporate tiers. The analysis of the effects of leverage on company profitability revealed that it had a negligible impact. Conversely, the source of the entity and the magnitude of the organisation have a substantial influence, rendering it an attractive topic for examination. Although control factors have a substantial influence on growth performance and its related side effects, this study did not investigate their impact. When the unique characteristics of a particular industry hinder growth, it is crucial to adopt a holistic strategy to addressing the problem, rather than implementing restrictions that just apply to individual organisations.

In summary, interactions, although significant within the group context, do not provide compelling evidence of influence, save for a few isolated instances. The regression study revealed that the link between leverage and return on assets (ROA) had very little explanatory power, indicating that leverage has a minimal impact on the variations in ROA. Excluding the lagged return on assets (ROA) performance from the regression analysis reduces the overall variation to only 0.02, indicating a significant decrease. Given the general consensus that leverage has no impact on return on assets (ROA), there is no need to present detailed connections with an abundance of data.

Conclusion

This study examines the correlation between leverage and sales performance. Leverage is considered a crucial element in the realm of corporate finance, where a company's growth performance is evaluated by employing the logarithmic representation of its sales revenue. In order to ascertain the validity of our research findings, we took into account the fact that Pakistan possesses a significant number of enterprises, amounting to a total of 18,017. A comprehensive regression model was employed to ensure the model's impartiality and reliability, while also including all significant outcomes. The outcomes of this study are deemed noteworthy and reliable due to several compelling factors.

There exists a notable negative correlation between leverage and sales performance, necessitating active engagement at every level of influence. This hyperlink is especially vital in relation to sales effectiveness. The decrease in sales income by 4% can be attributed to a simultaneous increase in the debt ratio by 10%. The debt ratio is calculated by dividing total commitments by total assets. Contrary to the commonly accepted notion that leverage has a substantial and contradictory influence on an organization's achievement, it is glaringly evident that loans are being utilised in a reckless manner. A successful leverage policy indicates that the business's performance has enhanced, rather than deteriorated. Considering this, the discoveries given in this study provoke significant inquiries. Based on the results, it is crucial for owners and managers to prioritise the efficient utilisation of leverage.

This is due to the fact that improper utilisation of leverage greatly amplifies the likelihood of operational breakdown. Assuming all other factors stay unchanged, a higher debt-to-equity ratio suggests that banks are adopting a cautious strategy due to their apprehension about their ability to fulfil financial commitments. Moreover, restricting the accessibility of cash from external sources results in a decrease in competitiveness. The adverse consequences of an ill-advised leverage policy not only impede the growth potentials of other organisations, but also hinder their growth strategy. Financial market participants may interpret these findings as an additional cautionary signal. Providing external financing to firms lacking a clear capacity for expansion may heighten the risk of default.

Ultimately, governments may come to see that they may provide substantial economic stimulus to firms that employ leverage in a responsible manner. Furthermore, we examined the influence of leverage on the returns of assets. The second metric employed in this investigation

was the return on assets. Considering that the regression results indicate a negligible influence of leverage on return on assets (ROA), this poses a challenge that necessitates additional examination. We advocate performing extra study to get a more in-depth understanding of the elements that contribute to the negative association between leverage and sales performance. Furthermore, for freshly founded organisations, we propose undertaking a detailed investigation of the variables as well as reevaluating the correlation. As an extra advice, we advocate using solutions that consider the entity's size and origin. Finally, we feel that the sample size and technique utilised in this study will serve as a stimulus for future research, particularly in the assessment of the impact that corporate finance principles have on organisational performance in a variety of national and environmental situations.

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