

DEBT FINANCING AND PERFORMANCE OF FIRMS IN PAKISTAN

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ABSTRACT

The examination of variables that can affect the profitability of the firms is the main purpose of this study. The aim of this study is to find out the effects of dependent on independent variables thoroughly. Profitability is the dependent variable used in this study and accounts payables, short term debt and long-term debt and the control variables are size, and age of the firms are the independent variables that has been used. For this purpose, the quantitative approach has been used. All the data has been used in this study is collected from the official website of Pakistan Stock Exchange PSE. The result of this study shows that the no other variable has any significant impact on the profitability of firms accept long term debt. This means that the companies should go for equity financing and not for the debt financing. All variables of debt financing that are considered for this study are, short term debt, long term debt and accounts payable suggests that companies should go for equity financing. The control variables of the study do not have any effect on the profitability of the firm but for the SMEs the size of the firms impacts the profitability. The managers of the firms should go for the internal financing for the higher profitability.

Keywords: Debt financing, firm performance, firm size, and firm age.

1. INTRODUCTION

1.1 Background Of The Study

In the managerial finance the relationship concerning the performance of firm and debt financing is frequently discussed and it is very crucial. The trade-off between gains and costs is the association of the debt financing (Harris and Raviv, 1991), the common benefits related to the tax-Sheltering are less than the costs on the overall debt level. An ability of an organization to deal with its competitive environment is also important along with achieving firm value and profitability through attaining the satisfactory debt level. The capital structure decision is very important in today's world for the value of a company. The company's ought to make strategies with good mix of debt and equity. The most important decision is capital structure because the risk and return of the shareholders is also dependent on this and due to mismanagement of this mix financial issues for activities of business can arrive and funds are not used optimally by them. (Aziz and Abbas, 2019).

To explain the relationship between debt financing and firm performance several theoretical approaches have been developed. A firm's real operations, including performance or capital cost, value, is not affected by the firm's financing choice in a perfect capital market according to the On the basis of number of assumptions this view is developed, for example transaction costs or no taxes exists, opportunities to lend or borrow money or all the investors is the same that agency cost exists, and that information asymmetry does not exist. If firm's increases the amount of debt in their capital structure the tax-deductible interest payment benefits can be gained by the firms as suggested by (Modigliani and Miller, 1963) Due to its postulation of market perfection and its limited applicability this view has been questioned. As compared to the above taken assumptions the circumstances in the real market are more complex. Financial markets are associated with information asymmetry, moral hazards and the agency conflict costs are imperfect in the reality. The link amid firm's performance and debt policy has been the focus of numerous studies. (Yazdanfar and Öhman, 2015). So many studies have worked on the relationship between the firm's performance and debt policies, but this study focuses on the companies taken from almost every nonfinancial sector of Pakistan. "Textile, Food, Sugar, Chemicals, other manufacturing, Mineral products, Cements, Motor vehicles and

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auto parts, Fuel and energy, Information, communication and transport services, Coke and refined petroleum products, Paper and Paperboard, Electrical machinery, and other service activities". If the ability of a company to pay off the debt is low, then it must not take high level of debt. The balance of tax saving benefit and bankruptcy cost should be there by having good optimal structure but the increase in cost of capital can be caused by the high leverage and eventually it decreases the value of the company (Desai, 2007). Banks are the company's primary sources of funding because there is no established market for bonds, debentures, or notes in Pakistan. The government owns these institutions, which provide both short- and long-term financing. As a result, both the financial and non-financial sectors have been performing worse. Financial institutions lend money without considering a company's performance, and by doing so, they harm the performance of both the financial and non-financial sectors. The issue of global debt finance affects both developing and industrialized nations. Since no previous research has been done on the relationship between debt structure and performance alongside size and age of the firm, this study is significant (Aziz and Abbas, 2019).

Jensen says, "Managers have to take risks if they want to avoid major threats to the firm." After Modigliani and Miller's (1958) theory of optimal capital, capital structure remained the focus of many researchers for a long time. To have the best structure, it must be able to reach both short-term and long-term growth goals. It ensures that capital should be maintained in both good and bad times by the company. Whenever possible the internal sources are utilized by the firms preferably to raise finance, in spite of outsourcing the funds from other sources like issuing bonds or bank loans. While; when there's nothing else to do Equity financing is a possibility because issuing new shares will bring more partners/shareholders into the company, which will make the current shareholding weaker. "Agency costs are caused by the use of debt in a company's capital structure. Agency costs are caused by the relationships between shareholders and managers and between debt holders and shareholders (Habib et al., 2016) Also, this study used a fixed-effects model to look at a large cross-sectoral sample of 36 Pakistani listed firms' data from the past six years. When it comes to the relationship between financial leverage and the performance of firms in Pakistan, the main findings show that there is a strong link between trade credit, long-term debt, short-term debt, and profitability.

1.2 Problem Statement

A concern related to several shareholders, including managers, owners, and debt holders is the highlight of this study. To decrease the firm's cost of capital and to increase its performance the managers of the firms who can implement an intentional policy of debt are more likely than former managers Accordingly, if a firm's its performance is affected by debt policy, it is rational to assume that anticipated financing strategies will reduce the risk of default of firm.

1.3 Objective of the Study

In the finance it is myth that is evolving gradually that companies should go for more debt and less equity because of apparent advantages. But this study suggested that less level of debt should be used by the companies of Pakistan since it reduces the performance of companies in Pakistan. Internal source of finance should be more a source of reliance for the companies because it is the inexpensive and consistent cradle of finance. Due to the insolvency risk the optimum level of capital structure should be used by the firms because the insolvency risk of companies is caused by high level of debt. As all the information about the companies is not disclosed to the public there is dire need of solving the problem of information asymmetry. For the debt holders, finance managers and the shareholders of the companies this study is very helpful. The association between profitability of firms and debt has been a focused for many scholars over decades, though, there is dissimilarity of estimation between diverse researchers about the part of debt (Abor, 2005) negatively found and some found it positively also and few found it mixed result of profitability this variation is because of change of variables and change is variables as , size of sample (countries, firms, industries/sectors and periods) and methodologies.

The focus of the current study is the influence of debt on the performance of Pakistani companies. Frequently, a sole sector or a company above a period is taken by the reported studies, moreover; a very few studies have taken or investigated the financial or non-financial sectors. After that those studies have taken set of different variables for the investigation of the debts' role in profitability of companies from the non-financial sector of Pakistan with empirical evidence. This study has a data with the companies that give dividends regularly and are listed on Pakistan Stock Exchange for a quite long time. The limit of the data is from the year 2016 to 2021. Finance manages can have a comprehensive view to relationship between performance of the firms and debt.

2. LITERATURE REVIEW

2.1 Introduction and Understanding

The work of Modigliani and Miller (1958) on capital structure marked the beginning of a new era in corporate finance. According to the MM theory of capital structure, commonly known as the capital structure irrelevance hypothesis (1958), "under no taxes and transaction costs, the cost of capital and the value of the firm do not alter with a change in leverage" (Modigliani and Miller, 1958). (Modigliani and Miller, 1963) presented a new proof stating that "cost of capital affects capital structure, and therefore affects the value of the firm by ignoring unrealistic assumptions and taking into account the existence of taxes, which indicate that borrowing provides a tax advantage, whereas interest deducted from the tax will result in tax shields, while reducing the cost of borrowing and maximizing the firm's performance" (Miller, 1977). There are four distinct theories about capital structure: agency costs theory, signaling theory, Pecking order theory, and tradeoff theory. According to the Pecking Order Theory, corporations prefer to use internal sources of financing first, followed by debt, and then external equity gained through shares. (1999, Shyam-Sunder and Myers). "Agency expenses result from the connections between shareholders and managers and debtholders and shareholders" (Jensen and Meckling, 1976). According to both of these theories, the effect of debt on probability can be positive or negative. It has a progressive influence between managers and shareholders in the case of agency cost of equity. In contrast, the agency cost of debt between creditors and shareholders has a negative effect. The tradeoff theory addresses the concept of selecting a capital structure; picking a capital structure is the process of selecting a good debt and equity component for a corporation. Debt financing based on the tradeoff principle can be advantageous in that it provides tax benefits, but it comes with expenses such as financial distress cost and bankruptcy cost. The signaling theory states that "in the context of asymmetric information, debt should be positively associated with profitability" (Kebewar, 2013).

Many scholars were drawn to Modigliani and Miller's work despite the unrealistic assumptions made by them. For many researchers, their work served as an inspiration. Researchers are examining whether the ideal capital structure exists. The definition of the ideal capital structure, in its simplest form, can be stated as "the capital structure at which the weighted average cost of capital is least and, consequently, the largest value of the firm." Regarding the impact of debt on profitability, the academics' divergent views can be reconciled. Researchers have discovered both positive and negative effects of debt on likelihood, as well as both.

2.2 Positive relationship between debt and profitability

(Wipperfurth, 1966) found affirmative relation between profitability and debt, for this he studied some industries though using earning to market ratio and debt to equity ratio. Some of the Ghana stock exchange listed firms were studied by the (Abor, 2005) and found out the positive relation between return on equity and the total assets to short term debts. (Gill, et al., 2011) expansion of Abor's result were tried by him. He investigated the sample of 272 manufacturing and service firms listed on New York. The similarity between Abor's work were found. (Soumadi and Hayajneh, 1857) also found out the similar positive results and their work proved that the performance of the firm is positively affected by the debt ratio. Many other researchers, found a positive impact along with (Holz, 2002), (Sarkar and Zapatero, 2003), (Dessi and Robertson, 2003), (Baum et al., 2006)

2.3 Negative relationship between debt and profitability

The negative relation was also confirmed opposing to the positive relation of profitability to debt. 20 firms were studied by (Mendell et al., 2006.) of the forest industry. The existence of negative relation of debt on profitability were reflected by his results.

Mohammad and Jaafer, (2012) reviewed and examined 39 Amman Stock Exchange-based companies and examined the effect that debt plays in operating profitably. His findings showed a significant but adverse association between short term debt, long term debt, overall debt, and return on equity. A study on French companies was performed by (Kebewar, 2013). Based on 2325 his study says that over a period of 8 years between 1999 to 2006 the trade sector companies found that profitability is negatively impacted by debt. Manufacturing firms listed on Colombo stock Exchange were studied by (Anandasayanan & Subramaniam, 2013) and significantly negative relation between profitability and debt were found. seventeen (17) textile companies listed on KSE were studied by (Wali, Fatima, and Mehboob, 2012) using longitudinal data from 2003 to 2007 and they found out that the profitability is inversely affected by the short term debts. Many other researchers also found negative relationship between profitability and debt including (Krishnan and Moyer, 1997), (Mathur, 2000), (Goddard et al. 2005), (Zeitun and Tian, 2007), (King and Santor, 2008), (Kajola, 2010)

2.4 Mixed results of debt and profitability

Besides positive and negative impact of debt on profitability mixed results were also found. Different regression models remained used by Hurdle, 1973 and he found different results. Positive results were reported according to the results using Ordinary Least Square (OLS) method, a negative effect on profitability was indicated by two stage least squares (2SLS). Firms that have high growth debt has the negative effect on profitability while the firms that have low growth influence positively on the profitability says (McConnell and Servaes, 1995) and (Agarwal and Zhao, 2007) results. To find the effect of leverage on the firm performance (Weil, 2008) different European countries were studied by him so he could find out how leverage impacts on firm performance. the impact of debt on profitability varies in different countries. In countries like Belgium, France, Germany, and Norway showed negative results while countries like Spain and Italy showed contrary results. While significant results showed in Portugal. 650 Chinese firms were investigated by (Cheng, Liu and Chien, 2010) and when the debt ratio between (53.97%-70.48%) positive relationship was found, while on the contrary adverse relationship was found when the debt ratio surpassed 70.48%.

In their 2010 investigation of 650 Chinese companies, Cheng, Liu, and Chien discovered that there was a positive link when the debt ratio was between (53.97% and 70.48%), and a negative relationship when the debt ratio was above 70.48%. (Dwilaksono.H, 2010) investigated the impact of short- and long-term debt on the profitability of mining industry companies listed on the Indonesia Stock Exchange between 2003 and 2007, and he discovered a weak but discernible link between long-term debt and profitability. There were contradictory findings in the investigations of Mesquita and Lara (2003), Agarwal and Zhao (2007), and Li Meng, Wang, and Zhou (2008).

The analysts concentrated on the connection between capital construction and the worth of the firm through showing up new hypothesis called the organization hypothesis which demonstrates to expected struggle among investors and supervisors from one viewpoint and the likely clash among investors and indebted individuals' structure then again. Possible clash among investors and directors emerges when the investors pick the administrator as a specialist of their selves to deal with the firm to augment their riches', yet the troughs focus on the high beneficial and hazardous tasks to accomplish their inclinations at first that addressed motivators and prizes, and afterward that unsettling of benefits of investors, these lead to expand the firm worth Jensen and Meckling, 1976, Harri and Raviv, 1991 and Myer, 2001.

Many examinations demonstrated that learning experiences assume significant part in deciding the capital construction and subsequently impact on firm execution. (Myer, 1977) examined that the job of learning experience basically of the nature and the organization of capital construction that high learning experiences firms undoubtedly will experience the ill effects of seeming the obligation issue and this will prompt emerge gambles going with obligation of which the firm offers up the productive speculation chances. Also, the firm will depend on the value sources more than obligation sources to confront that is gambles and to back expected learning experiences, accordingly it will consider emphatically firm execution Hovakimian, Opler and Titman, 2001. One more perspective related with office charges that the firm will hope to accomplish new learning experience from here on out. High development firms will acquire credits and giving new bonds contrasting and low development firms. If the firm has any desire to give obligation later, the firm will uncover of liquidation risk by reason of expanding the obligation costs, prompting lessen the firm exhibition Ross, 1977, Majumdar and Chhibber, 1997. It very well may be shift focus over to chapter 11 dangers from another perspective, which accommodate that liquidation considers significant expense for the administrators, it might allude to their feelings of trepidation from letting completely go advantages of the firm and their standing. Then, the obligation makes for the directors a motivator to work scarcely and effectively despite the decline the additions that might can mark it, however this drive urge them to use the finest contributed open doors and this will prompt decrease of insolvency Grossman and Hart, 1982 and hence it will pay off past commitments cost and consequently improving the firm execution.

2.5 Scope

Different time periods and different sectors like manufacturing have been used in the earlier studies. In some studies, only few manufacturing sectors have been taken with less time. And some studies have taken all manufacturing sectors with the less time. No study has been done in the time frame of 2016-2021 this is most recent and updated study on this topic along with the variables that have been considered. This study has non-financial sector which in detail have taken different manufacturing sectors.

Since the last part of the 1950s, hypothetical and experimental investigations have tended to the connection between capital construction and firm execution. Office hypothesis is thought to be pertinent to both enormous and independent ventures Chittenden et al., 1996; Myers, 2001. This hypothesis expects that irreconcilable circumstances and of mechanism privileges emerge between different monetary partners of a firm on the grounds that the perspectives of monetary partners towards risk are regularly unique. The primary irreconcilable

circumstances are among investors and directors or among investors and banks. Since the board and possession are not isolated in by far most of little firms, these organizations are bound to experience the ill effects of the second kind of irreconcilable circumstance. Little firm proprietors and chiefs will quite often dispossess abundance from loan bosses by putting resources into dangerous activities. The impetus for proprietors and chiefs is that they hope to get most of the additions regardless of the way that their loan bosses are presented to a large portion of the gamble Fama and Mill operator, 1972; Jensen and Meckling, 1976. Irreconcilable circumstances between little firm proprietors/troughs and banks depend on the inclination for the two players to extricate honor from a company's assets with little worry for the other party's inclinations. Connected with the contention between proprietors/troughs and banks are office costs and the data deviation between the gatherings Jensen and Meckling, 1976, Titman and Wessels, 1988. Organization costs indicate to the proprietor's as well as chief's expense of letting completely go over the firm and to the loan bosses' expenses of observing uses and lingering misfortune Jensen and Meckling, 1976; Myers, 2001.

The greater a company's degree of value capital, the lesser its obligation organization costs Casey and Anderson, 1997; Ooi, 2000. From an organization rate viewpoint, proprietors of high-influence firms risk dropping both their possessions and command above their organizations (Holmes and Kent, 1991; Hamilton and Fox, 1998). In this way, proprietors and chiefs of SMEs who attempt to keep their autonomy depend generally less on outside supporting Hutchinson, 1995; Shrivastava and Award, 1985.

Hypothetically, organization clashes influence a few monetary factors, like capital design and productivity. As per Jensen (1986), obligation supporting makes a disciplinary difference on the off chance that proprietorship and the executives are isolated, as is generally the situation in huge organizations. Obligation supporting presses directors, empowering them to perform more productively. Therefore, obligation supporting diminishes moral danger conduct by lessening free income. Be that as it may, the impact of obligation funding on little firms with no free income is disconnected and prone to prompt shortcoming. To keep up with freedom and command over the firm, proprietors and supervisors of the firms will generally follow an ordered progression (for example hierarchy) in raising capital, favoring inside reserves (for example value capital and held profit) to outer capital sources Myers and Majluf, 1984. Assuming inward supporting sources are inadequate for the speculation as well as extra assets are required, proprietors and chiefs lean toward generally safe obligation. At the end of the day, proprietors and chiefs are not liable to begin possibly productive activities assuming that they must be funded through unsafe outside capital sources.

3. DEVELOPMENT OF HYPOTHESIS

3.1 The Relationship between Profitability and Debt Ratios

An adverse relationship among the and profitability leverage can be created by the conflict of interest between the owner and the creditor. Agency cost of the debt would tend to be decreased by the profitable firms as they will reduce their debt ratio and thereby using retained earnings. On profitability the effects of short-term debts, long term debt and accounts payable are likely to be negative as per the agency cost basis, the following hypothesis is thereby formed:

Hypothesis 1: The debt ratios in terms of accounts payable, long-term debt and short-term debt have an adverse impact on the firm's profitability.

3.2 The Relationship between Firm's Size and Profitability

Theoretically a firm's size tends to have an affirmative impact on the profitability of the firm but from the findings of the previous studies we can say that the results are mixed as they can be positive or negative. As the larger firms have more access to the technology as matched to smaller firms, they have better ability to exploit the economies of scale. Also, large market shares and better product diversification can be achieved by larger firms, so this suggests an affirmative relationship between firm's size and profitability. The following hypothesis is created accordingly.

Hypothesis 2: Profitability is positively affected by the firm's size.

Number of proxies can be used to measure the firm's size such as assets, sales, and number of employees. Natural logarithm of the firm's book value of sales is used for measurement of firm's size is the current study.

3.3 Relationship between Firm's Age and Profitability

It can be measured as difference of years from which year the company started or went public until now. Proxy is used as the number of years of natural logarithm since first inception, dating back to the year that the data were collected. The elder the firm get the more resources it can have like learning business can give economic advantage and experience of business. Having more resources and reputation effects. The following is the third hypothesis, accordingly.

Hypothesis 3: Profitability is positively affected by the firm's age.

3.4 Data Sample

The data that is used in this study is the subordinate data gotten from the (web address: www.psx.com) Pakistan Stock Exchange website. All companies listed during the 2016-2021 PSE period will be used for this study.

The following criteria is the requirement of the data that is used:

- i. The audited public financial reports of the relevant company were published and from 2016 to 2021 it must be listed on the PSX.
- ii. In 2016-2021 consecutive earnings must be obtained by the relevant company in 2015–2019 and
- iii. In 2016–2021 consecutive dividends by the relevant company must be distributed. According to the sampling method.

Listed on PSE 85 companies fulfill these three measures, thereby they become a research sample of this study.

3.5 Variables

3.5.1 Dependent Variable

Profitability The independent variable in the current research is profitability and it can be measured using multiple ways such as earnings per share, ROA, gross profit margin and ROE are used by some researchers i.e., Abor, (2007); Ebid, (2009); Salim and Yadav (2012). On the basis of Goddard et al., (2005) In the current study ROA is being used as the proxy for profitability, and calculated as the value in book of the firm of net profit after tax and is divided by the total assets.

3.5.2 Independent Variables

For the identification of the association among profitability and debt ratios the variable of the capital structure is divided into three parts: first accounts payable second long-term debt and the third short-term debt. These are taken from the standard practices by the (Petersen and Rajan, 1997; Goddard et al., 2005).

Accounts Payable is the first autonomous variable and it is calculated by dividing accounts payable by the total assets and ratio is taken.

The Short-Term Debt is the second variable(independent) used in the current research and it is measured as debt that is receivable within a year ratio to the total assets.

The Long-Term Debt is the third variable, the debt that can be repaid after a year this also as percentage of the total assets.

In line with Myers and Majluf's, 1984 argument, all the variables in this study are based on the book value.

3.5.3 Control Variables

Firm's Age is the control variable for this study, it can be examined by the difference of years from which year the company started or went public until now.

Firm's Size is the second control variable, and it can be measure through various variables such as sales, total assets, number of employees or various other proxies.

3.6 Model Specification

As the core analytical method, the 3SLS modelling is being used to avoid the possible instinctually among the dependent variables such as profitability. two-stage least squares regression and multivariate seemingly unrelated regression (SUR) estimation are combined in this process, according to (Zellner and Theil, n.d.), and also takes into account the covariance's across equation conflicts. The independent variables are incorporated in the subsequent model:

Equation for the Total Sample

$$\text{Profitability}_{i,t} = \alpha + \beta_1 \text{AP}_{i,t} + \beta_2 \text{STD}_{i,t} + \beta_3 \text{LTD}_{i,t} + \beta_4 \text{Size}_{i,t} + \beta_5 \text{Age}_{i,t} + \mu_{i,t}$$

Where, Return on assets (ROA), which is the firm's book value of net profit after tax divided by total assets, is a measure of profitability. The constant term is t . Accounts Payable as a Percentage of Total Assets, or $\text{AP}_{i,t}$ Long-term debt is measured as a proportion of total assets, while short-term debt is measured as a percentage of total assets. $\text{Size}_{i,t}$ is the natural logarithm of the firm's book value of sales and represents the size of the firm at time t . $\text{Age}_{i,t}$ = the age of the firm at time t , expressed as the natural logarithm of the number of years since the firm's founding, as of the data collection year, and error term is $\mu_{i,t}$. Robustness of the data was examined by the fixed-effects regression the basis of the following equation for each industry sector (2):

$$\text{Profitability}_{i,t} = \alpha + \beta_1 \text{AP}_{i,t} + \beta_2 \text{STD}_{i,t} + \beta_3 \text{LTD}_{i,t} + \beta_4 \text{Size}_{i,t} + \beta_5 \text{Age}_{i,t} + \eta_i + \mu_{i,t}$$

Because it is possible to control all stable properties of the individual companies included in the sample during the study period, fixed-effects models are utilized for the analysis of longitudinal data.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics and Empirical Results

In table 1 the results of the descriptive analysis have been shown, the mean, standard deviation, kurtosis, and probability of Jarque-Bera is presented in this table. The overall 192 samples have been taken to test this and it shows companies have high mean of every variable; mean of ROA (profitability) is 10%, AP (accounts payable) is 28%, STD (short term debt) is 40%, LTD (long term debt) is 11% and SIZE is 18% except of the AGE which is the least 3%. The ROA is deviated by the 11%, accounts payable is deviated by 21%, short term debt is deviated by 31%, long term debt is deviated by 10%, age is deviated by 0% and size is deviated by 2.56%. The results specify that the debt portion is deviated the most and age and size of the firm are least deviated.

Table 4.1: Descriptive Statistics

	ROA	AP	STD	LTD	AGE	SIZE
Mean	10.07808	28.05060	40.85777	11.34936	3.552789	18.66481
Median	8.003990	23.69455	42.06401	9.415556	3.941535	17.90000
Maximum	52.80000	114.5389	177.6738	63.98638	4.317488	24.70000
Minimum	-32.05000	0.100000	-110.2038	-12.61936	0.000000	13.60000
Std. Dev.	11.51390	21.16186	31.22463	10.88768	0.854882	2.564650
Skewness	0.595396	1.431507	-0.151396	1.647715	-1.782475	0.452515
Kurtosis	5.653800	5.468519	10.11614	8.239980	6.502330	2.273306
Jarque-Bera	67.68513	114.3235	405.8496	306.5380	199.8015	10.77731
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.004568
Sum	1934.991	5385.716	7844.692	2179.078	682.1356	3583.644
Sum Sq. Dev.	25320.86	85534.45	186220.7	22641.44	139.5873	1256.289
Observations	192	192	192	192	192	192

Short debt has high level of kurtosis which is 10% and other debt variables as well shows higher level of kurtosis than the other variables. The study shows the results in the support of the idea that generally the companies rely on financial sources that are internal (i.e., equity capital and retained earnings). preferred external source of financing for firms seems to Short-term and capital structures, the least ideal financing option is the long-term debt. On a Short notice the short-term debt can be cancelled for this reason the financial organizations such as banks settle to concern short-term debt.

Thus, to upturn core sources of capital the firms use short term debt as it is an additional source of funding for the companies. The big firms go for the long-term debt mostly but the SMEs the short-term debt is more attractive, and it has two reasons. Primary, to finance operational costs and to encounter the necessity for working capital the short-term debt can be used. Secondary, the owners won't have to compromise on the control of the firm while choosing the short-term debt financing option. In the SMEs the use of short-term debt is predictable as it is better, secured and less risky option for them but when it comes to large firms specially manufacturing and construction the long-term debt financing option is better.

4.2 Correlation Analysis

Correlation analysis between explanatory factors was demonstrated to recognize the relationships between the variables included in the main models and to examine potential multi collinearity. The findings of the correlation study between the dependent variable, profitability, and each independent and control variable are presented in Table II. At the 0.01 and 0.05 significance levels, profitability (ROA) is negatively associated to all independent and control variables except accounts payable and age. Only long-term debt is substantial. As a result, the relationships between accounts payable (AP), short-term debt (STD), and long-term debt (LTD) levels and profitability are all strongly negative. While accounts payable is positively connected with ROA, it is strongly negatively correlated

with long-term debt. Furthermore, profitability and the two control variables, size, and age, are unaffected, showing that business size and age have no effect on profitability based on the data in this study.

Table 4.2: Correlation Analysis

	ROA	AP	STD	LTD	AGE	SIZE
ROA	1.0000	0.2826	-0.1918	-0.2615	0.1167	-0.2400
AP	0.2826	1.0000	0.4397	-0.1495	0.1861	-0.3078
STD	-0.1918	0.4397	1.0000	0.1593	-0.0928	-0.1230
LTD	-0.2615	-0.1495	0.1593	1.0000	-0.1550	-0.0040
AGE	0.1167	0.1861	-0.0928	-0.1550	1.0000	-0.4427
SIZE	-0.2400	-0.3078	-0.1230	-0.0040	-0.4427	1.0000

There is no indication of multi collinearity among the variables included in the model because the results authorize that all the coefficients between variables are justly low.

4.3 Hausman Test

Table 4.3: Hausman Test

Correlated Random Effects - Hausman Test				
Equation: Untitled				
Test cross-section random effects				
Test Summary		Chi-Sq. Stat.	Chi-Sq. d.f.	Prob.
Cross-section random		14.241833	5	0.0141
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
AP	0.037807	0.091383	0.000659	0.0369
STD	-0.033894	-0.053232	0.000028	0.0002
LTD	-0.121886	-0.149125	0.000312	0.1228
AGE	-5.100174	-1.531828	5.614505	0.1321
SIZE	-0.673572	-0.949191	0.223808	0.5602

The panel data is testified using the Hausman test and it suggests that the data should be testified with the fixed panel regression as is more suitable because value of probability is low and fixed effect model is more suitable for this data. The null hypothesis is rejected, and the alternative hypothesis is accepted.

4.4 Fixed Panel Regression

The indications by the results of the complete model, and reliable with H1, the foremost independent variables i.e., account payable (AP), short-term debt (STD), and long-term debt (LTD) negatively and significantly affect profitability (ROA) at a significance level of 5%. Accounts payable ($\beta = 0.0378$; $p = 0.455$), short term debt ($\beta = -0.0338$; $p = 0.104$), long term debt ($\beta = -0.1218$; $p = 0.0367$), age ($\beta = -5.100$; $p = 0.070$) and size ($\beta = -673$; $p = 0.307$). while the results confirm the hypothesis 1 that the debt ratios in terms of accounts payable, short term debt, and long-term debt have a negative impact on the firm's profitability and the results also matches the results of base paper of the study (Zellner and Theil, 2015). The results of this data used in the study rejects the hypothesis 2 that says profitability is positively affected by the firm's size, the size of the firms taken for the study does not affect the profitability. The hypothesis 3 is also rejected that is profitability is positively affected by the firm's age. According to the results the age of the firm does not have any effect on this profitability. Only the debt variables are affecting the profitability of the firm and so in a negative manner.

Coefficient's sign shows the connection among the independent variables and dependent variables. That how much the deviation occurs in expected and slope coefficient is shown by the standard error. The number of standard errors that the coefficient is derived from zero are measured through the t-statistics, and that how many standard errors are there. To reject the null hypothesis the smallest evidence is the probability. About how much variation can be

explained by the explanatory variables is simplified by the. As an increase in more explanatory variables the adjusted R-squared can be decreased. The standard error of the standard regression is the S.E. The sum squared residuals sceptors random effects of the results. The F-statics simply tells the significance(statistical) of the F value, the model will be as better as the minor will be this figure. The average value of the dependent variable of the model is mean dependent variable is just. The deviation of the mean of the dependent variable can be seen through the S.D dependent variable from its true value.

Table 4.4: Regression Analysis

Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 2016 2021				
Periods included: 6				
Cross-sections included: 32				
Total panel (balanced) observations: 192				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
AP	0.037807	0.050572	0.747596	0.4558
STD	-0.033894	0.020747	-1.633640	0.1044
LTD	-0.121886	0.057844	-2.107149	0.0367
AGE	-5.100174	2.800714	-1.821026	0.0705
SIZE	-0.673572	0.657683	-1.024159	0.3074
C	42.47766	15.62648	2.718312	0.0073
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	5.625948	R-squared	0.759998	
Mean dependent var	10.07808	Adjusted R-squared	0.704256	
S.D. dependent var	11.51390	S.E. of regression	6.261530	
Akaike info criterion	6.678073	Sum squared resid	6077.048	
Schwarz criterion	7.305819	Log likelihood	-604.0950	
Hannan-Quinn criter.	6.932315	F-statistic	13.63414	
Durbin-Watson stat	1.546492	Prob(F-statistic)	0.000000	

Adjusted r-square of the data is good because it is higher the benchmark that is 5%. The probability of f-statistics explains that the model is significant as it is lower is 5%. In addition, the empirical data show that debt ratios have a detrimental impact on company performance in terms of profitability. Firms with a lower debt ratio appear to be more lucrative, based on findings from agency cost theory. In addition, equity capital and retained earnings can be utilized efficiently by the owners and managers of profitable businesses, lowering agency costs, and remaining independent of external financiers. The current study's empirical findings support those of previous studies from different nations and company environments, such as (Majumdar and Chhibber, 1999), (Goddard et al. 2005), (Abor, 2007), (Sheikh and Wang, 2011), and (Salim and Yadav, 2012).

5. CONCLUSION

From a managerial finance standpoint, a careful investigation of the link between business debt financing and profitability is warranted. By utilizing a sizable dataset and trustworthy econometric approaches, the current study provides empirical evidence on this topic with relation to Pakistani businesses. To motivate its empirical part and afterwards explain the effect of debt financing on company performance in terms of profitability, the article specifically uses agency theory.

The aggregate results show that trade credit (also known as accounts payable), short-term debt, and long-term debt all have a significant and detrimental impact on a company's profitability. The recent findings demonstrate that profitable enterprises typically use more equity capital and retained earnings than external funding, which is consistent with the pecking order theory (Myers and Majluf, 1984). Additionally, the priorities of the sampled firm are to prioritize using short-term debt above long-term debt. A method like this can lower the expenses caused by knowledge asymmetry and agency conflicts. The agency costs of external debt are lower and firm profitability is higher the lower the leverage level. Also discovered to have a substantial impact on firm profitability are size and age.

Among the studied businesses, the influence of size on profitability is null, confirming a prior finding that Garcia-Teruel and Martinez-Solano, 2007. The size impact may be clarified by the fact that larger SMEs may benefit more from economies of scale and product, market, and activity diversity. It is important to note that the industry sectors examined have different effects of scale on profitability. While there is no effect of size among the selected enterprises, lifecycle theory can be used to explain why there is a negative correlation between age and profitability. Aging businesses are more prone to move to being low-profitable businesses (Warusawitharana, 2014).

In terms of the theoretical framework, the agency cost perspective seems pertinent in explaining the connection between debt levels and firm profitability. Numerous policy implications for business owners, managers, and financial intuitions are brought about by this research. On the one hand, the statistic that greater equity capital ratios can lower agency costs, thus favorably affecting firm profitability, may encourage business owners and managers. They might decide to increase the equity portion of the total capital as a result. On the other hand, if business owners and managers are unsuccessful in increasing equity in their organizations, the likelihood that using excessive debt will lower profitability may discourage them from making the necessary investments. To reduce information asymmetry and moral hazard between enterprises and financial institutions such as banks, business owners and managers should be aware of the significance of transparency measures that can improve their connections with financial institutions in the business environment.

Financial institutions like banks may find it challenging to evaluate the repayment capacity of many businesses because they operate in an environment with opaque information (Berger and Udell, 2006). Financial institutions might create better products, particularly for high-risk businesses with intangible assets. This might boost investment rates, resulting in better resource allocation.

6. LIMITATIONS

There are several limitations involved with this study. The first is that the data were only obtained for limited companies, namely those that paid regular dividends, and there are no sector classifications; therefore, attempts should be made to research the issue as it applies to sectors. Due to limited data access, the study was based on only six years of data; future research could cover a larger time frame. It would also be beneficial to conduct qualitative studies, specifically interviews with firm owners and managers as well as creditors such as bank lending officers, in order to study in greater detail how they see various investment options. Furthermore, the application of a multiple performance assessment would likely enhance our comprehension of the relationship between debt financing and company performance. Additionally, utilizing numerous performance assessments would likely help us comprehend the relationship between debt financing and firm success.

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