

## IMPACT OF OWNERSHIP STRUCTURE AND CAPITAL STRUCTURE ON FIRM FINANCIAL PERFORMANCE: AN EMPIRICAL ANALYSIS OVER PAKISTAN STOCK EXCHANGE (PSX) LISTED FIRMS.

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**Abstract:** *Over the past few decades, the relationship between capital structure, ownership structure and performance has been a constant and important point in the corporate finance literature. The main tenant of this investigation is to examine the impact of Ownership Structure and Capital Structure on firm's value/ performance in emerging economies, such as Pakistan. The sample size of the study includes non-financial companies operating in Pakistan. Researchers used multiple secondary data sources for assortment of information in which SBP, Pakistan Stock exchange and yearly reports of organizations are incorporated. Yearly reports of the organizations are utilized for extricating information of discussed variables. The outcomes indicate that the overall capital structure proxies (i.e. DER & LTDR) are significant but negatively affected the corporate performance (ROA & ROE). Moreover, findings also illustrate that ownership structure (i.e. Institutional & concentration ownership) has a significant impact on firm's value. This research is helpful for every company management to keep the optimal capital structure and make appropriate decision regarding ownership structure. In future research, researchers may use different proxies of ownership structure like, institutional ownership and family ownership to check the impact on firm performance.*

**Key words:** Firm Performance, Ownership structure, Capital Structure, PSX& Non-financial firms

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## **1. Introduction**

Capital structure decisions are now a problem in the area of corporate finance. It is defined how a company finances all its business and growth through the use of various finance sources (Ahmad, Saboor, & Nouman, 2018). The major aim of capital structure is to minimize the cost of capital by combining debt and equity financing (Haron, 2018). Debt can occur in various ways, including the issue of bonds and bills of exchange, while equity can take the form of ordinary shares, preference shares and undistributed profits (Ahmad et al., 2018). Decisions on a company's capital structure are important as they relate to a company's ability and also meet the needs of its stakeholders (Bajagai, Keshari, Bhetwal, Sah, & Jha, 2019).

Previous theoretical and empirical studies partly explained some aspects of an organization's capital structure. So far, the thematic research by Modigliani and Miller (1958) has given rise to many theories that explain the company's capital structure selection. The theories have a strong description of serious issues like, Agency issues and asymmetry information etc. Myers and Majluf (1984) discuss about the optimal capital structure and argue that when firms need debt, first they use an internal capital source like retained earnings. To run the operations of a firm, it is top priority of firms to prefer debts over equities for financing. Jensen(1986) explains agency cost theory that we can identify optimal capital structure by reducing the cost among managers, employees and shareholders.

In literature, there are multiple studies available which discussed the relationship between firm's ownership structure and firm's value. In this regard Tleubayev and Bobojonov (2020) investigate the impact of ownership structure on firms value and found a significant relationship between observed variables. Other researchers Rajab, Zunuidah,

and Ahmad (2020) investigated some other aspect of ownership like, government ownership, managerial ownership and check its relation with firm overall value. The results of the study indicate a significant and positive relationship between observed variables. Several researchers are studying the connection between the ownership structure and the firm's value e.g. (Kao, Hodgkinson, & Jaafar, 2019). The studies already conducted showed contradictory results because of different demographics, culture and firms characteristics.

After probing thorough literature, the researcher's argument that most of the researchers on this particular topic are conducted in developed countries and very limited studies are available which discuss the relationship of these variable comprehensively. In developing countries like Pakistan, there is a need to conduct a comprehensive study to examine the relationship between ownership structures, capital structure and firms value. Therefore, the main objective of this study is to check the relationship between these variables by targeting non-financial sector of Pakistan. The present study significantly contributes to the literature in following ways. To start with, it analyse the nature of capital structure choices, which settle the issues of firm's stakeholders; like debt holders, investor and managers. Second, it addresses the lack of empirical studies that can contribute to the relationship between observed variables. Moreover, this research study is valuable for investors to make portfolios that offer them the greatest advantage. This investigation is likewise be significant and will permit investors to conclude how to pick a proper ownership and capital structure.

## **2. Empirical studies and hypothesis development**

In literature, multiple researchers investigate the determinants of capital structure and its impact on firm's value. Modigliani, and

Miller (1958) argued that the capital structure of a firm is irrelevant to the firm's value. El-Sayed Ebaid (2009) also argued that financial theory cannot give a valid reason for choosing the capital structure. Jensen(1986) argued that if a firm reduces agency problem between shareholder's and managers then the increased level of debt in capital structure might have a significant impact on financial performance of the company. Harris & Raviv(1991)and Arbor (2005) also argue that capital structure has significant impact on firms value.

Some researchers like Le & Phan(2017)researched on the relationship between Vietnam non-financial institutions by observing the relationship between capital structure and company performance. The findings show a negative relationship between the observed variables. Al-Taani(2013) has studied the link between financial leverage and Jordan firms' performance. The researcher concluded the insignificant negative relation between financial leverage and performance of firms. Kausar, Nazir, & Butt(2014)investigate the impact of capital structure on firms value by considering non-financial firms listed in Pakistan Stock Exchange. The findings of the research shows insignificant relationship between observed variables. Bao &Llewellyn (2017) conducted concluded that there is a direct relationship between the capital structure and the company's performance. Another researchers Alipour, Mohammadi, & Derakhshan (2015) examine the impact of managerial ownership on capital structure. The findings indicate a significant but negative effect on observed variables. Cheng & Tzeng (2011) also investigate the effect of capital structure and firms value. The findings show a positive and significant relationship between observed variables.

In literature, there are multiple studies available which discussed the impact of ownership structure and firms performance. In this regard Beasley (1996) argued that ownership structure of the organization has significant impact on firms value. McConnell & Servaes(1990) conclude that an increase in the company's shareholding will have an impact on the enrichment of the executive power. Han & Suk (1998) argued that better business performance need to increase internal ownership but excessive internal ownership badly impact on firms value. Fauzi &Locke (2012) also investigate the impact of ownership structure and firms value. This study found insignificant relationship between the observed variables. Moreover, findings also suggested that foreign ownership control is better to perform as compared to local ownership.

Ozili (2018) investigated different types of ownerships and their impact on banks in Africa during 2000-2010. A positive relationship has been observed in high ownership concentration and bank profitability. Pandey and Sehgal (2017) investigated the impact of ownership and capital structure of non-financial firms and its impact on firms value. The results show a positive relation of ownership structure with firm performance but a negative relationship with capital structure. Chia et al (2018) observed the significant relation between profitability of the firm and its ownership structure. Khan, Naeem, Rizwan, & Salman (2016)investigate the relationship between firms value and ownership structure. The results showed a significant and positive relationship between observed variables. According to the above discussion, the researchers proposed the following hypothesis.

H1: There is a significant relationship between firm's capital structure and its performance.

H2: There is a significant relationship between firm's ownership structure and its performance.

H3: There is a significant effect of Firms size, Assets turnover ratio and quick ratio on firm's financial performance.

### **3. Methodology**

The researchers used casual research design for this study because researchers want to know the relationship and impact of several independent variables on firm's financial performance. Researchers used multiple secondary data sources for assortment of information in which SBP, Pakistan Stock exchange and yearly reports of organizations are incorporated. Yearly reports of the organizations are utilized for extricating information of discussed variables. More specifically, the data of Ownership structure was extricated from investor's patterns from company's annual reports and Capital structure and firm performance data was extracted from balance sheet and income statements by using different proxies. Researchers selected non-financial firms listed in PSX as a population of the study. Quang and Zhong (2014) Adopted similar methodology to select sample size. According to the KSE 100 index there are seventy two companies are registered under the category of non-financial firms. Researchers selected sixty one companies as a sample as rest of the company's data was not available. The purposive sampling technique was used for data collection. The panel data were used for the 6 years. The different panel data technique was used on STATA version 13 for this study. Pair wise

### **4. Results and Discussions**

correlation and VIF analysis used to check any Multicollinearity among independent variables. Ordinary least square, fixed effect model and random effect model used to analyse panel data. For the selection of the regression model, the Lagrange Multiplier (LM) was used.

#### **3.1 Variable measurement**

**3.1.1** Financial return, measured on the basis of the accounting values calculated from the balance sheets of ROA and ROE (Abor, 2005).

**3.1.2** Capital structure was measured through leverage, resulting in from the ratio of "total debt on total assets (TDA), ratio between long-term debt and total assets (LDA) and debt and Short-term Debt on Total Assets (SDA)" (Ebaid, 2009).

**3.1.3** Ownership structure was measures through proxies of institutional, Managerial and Concentrated Ownership. Fernando, Gatchev, and Spindt (2012) State that ownership structure can be measured through institutional ownership. Concentration ownership are those investors in a firm which have large ownership in a firm (Demsetz & Lehn, 1985).

#### **3.1 Model Specification**

**MNo. 1:**  $ROE = \alpha + \beta_1 MO + \beta_2 IO + \beta_3 CO + \beta_4 LDR + \beta_5 SDR + \beta_6 DER + \beta_4 ATR + \beta_5 QR + \beta_7 SIZE + u$

**MNo. 2:**  $ROA = \alpha + \beta_1 MO + \beta_2 IO + \beta_3 CO + \beta_4 LDR + \beta_5 SDR + \beta_6 DER + \beta_4 ATR + \beta_5 QR + \beta_7 SIZE + u$

**Table 4.1: Correlation Matrix**

Variables	DER	LDTA	STDA	MO	IO	OC	SIZE	QR	ATR
<b>Debt/E</b>	1								
<b>Long/DT</b>	0.3324	1							
<b>Short/TD</b>	0.6079	-0.176	1						
<b>Managerial/O</b>	0.1033	0.1195	0.0096	1					
<b>Institutional/O</b>	0.0377	-0.044	0.0234	-0.097	1				
<b>Concentrated/O</b>	-0.068	-0.088	-0.030	-0.749	-0.413	1			
<b>SIZE</b>	0.1065	0.0615	-0.030	-0.238	-0.011	0.1986	1		
<b>QR</b>	-0.468	-0.168	-0.489	-0.142	0.0117	0.133	-0.009	1	
<b>ATR</b>	0.1382	-0.409	0.560	-0.161	-0.955	0.2609	-0.046	-0.14	1

The above table shows the correlation among variables that how much variables are correlated with each other. Some variables have a positive correlation whole some of the

above has a negative correlation. Strong significant results have been found for all of the above variables. All the variables are significant at the level of 0.01

#### 4.1 Selection of Appropriate Model

$$M1ROA = \alpha + \beta1 MO + \beta2 IO + \beta3 CO + \beta4 LDR + \beta5 SDR + \beta6 DER + \beta4 ATR + \beta5 QR + \beta7 SIZE + u$$

**Table 4.2: Model 1 selection**

Finding	Hypothesis	Test	Test Statistics
PR vs. REM	H0= PE	Lagrange Multiplier	<b>X2 = 75.38</b>
	HA= RE		<b>Prob. 000</b>
PRvs. FEM	H0= PE	Restricted	<b>F= 13.589</b>
	HA= FE		
FE vs. RE	H0= FE	H Test	<b>X2 = 16.88</b>
	HA= RE		<b>Prob. 0.0270</b>

$$M2: ROE = \alpha + \beta1 MO + \beta2 IO + \beta3 CO + \beta4 LDR + \beta5 SDR + \beta6 DER + \beta4 ATR + \beta5 QR + \beta7 SIZE + u$$

**Table 4.2: M 2 selection**

<b>Purpose</b>	<b>Hypothesis</b>	<b>Test</b>	<b>Test Statistics</b>
PR vs.REM	H0= PE	Lagrange Multiplier	<b>X2 = 147.89</b>
	HA= RE		<b>Prob. 000</b>
PR vs. FEM	H0= PE	Restricted F	<b>F= 19.544</b>
	HA= FE		
FE vs. RE	H0= FE	H Test	<b>X2 = 79.71</b>
	HA= RE		<b>Prob. 0.000</b>

**Fixed Effect (FE) Model**

<b>M.1 ROA</b>			<b>M.2 ROE</b>		
<b>V</b>	<b>C</b>	<b>T.Stat</b>	<b>V</b>	<b>C</b>	<b>T.Stat</b>
DER	-.02409	-3.50***	DER	-.04790	-3.96***
LTDA	-.11823	-2.51**	LTDA	-.15201	-1.83*
STDA	-.00992	-0.16	STDA	-.07365	-0.66
MO	.07578	0.37	MO	-.16369	-0.45
IO	.40390	3.06***	IO	.79197	3.40***
CO	.85331	4.16***	CO	2.9457	8.15***
SIZE	.01721	1.42	SIZE	.03940	1.84*
QR	.01617	2.32**	QR	.02392	1.94*
ATR	.02858	2.07**	ATR	.08188	3.37***
Constant	-.8888	-2.82***	Constant	-2.6066	-4.70***
F-Stat	11.67		F-Stat	21.80	
R <sup>2</sup> within	0.2618		R <sup>2</sup> within	0.3986	
between	0.1140		Between	0.0513	
overall	0.0899		Overall	0.0459	

“Significant at the level of 1% shown \*\*\* significant at 5% shown \*\* significant at 10% shown \*”

<b>Hypothesis</b>	<b>Relationships</b>
DE ratio has an Effect on FP.	<b>Negatively related</b>
LRD ratio has an Effect on FP.	<b>Negatively related</b>
SRD has an Effect on FP.	<b>Insignificantly related</b>
MO has an Effect on FP.	<b>Insignificantly related</b>
IO has an Effect on FP.	<b>Positively related</b>
CO has an Effect on FP.	<b>Positively related</b>
ATR has an Effect on FP.	<b>Positively related</b>
QR has an Effect on FP.	<b>Significantly related</b>
FM has an Effect on FP.	<b>Positively related</b>

## 5. Discussion

ROA is used as a dependent variable in Model 1. The debt ratio is significantly at 1% and shows the negative impact on the company's business. The value of t-statistics is -3.50. This shows that the rise in the D/E ratio reduces the company's performance due to the percentage change in the D/E ratio. ROE with a t-statistics -3.96, has negative effect on company performance. As the D / E increases by 0.911289 units, the ROA of the same unit decreases. By increasing the leverage ratio in Model 2 by 2.6545 units, the financial performance of the same unit will decrease. The (Al-Taani, 2013), (Alipour et al., 2015), and (Pandey & Sehgal, 2017) found the inverse relationship in the study.

A negative relation of FM and CS has been observed of the ROA-based entity as a dependent variable in Model 1. The significant level is 5% and the statistical value is -2.51. as a dependent variable, ROE is used Model 2. The significant level is 10% while t stat value is -1.83. This shows that if the firm increase the ratio of long-term debt in capital structure, a negative relation among the capital structure and performance of firm has been shown. In model 1 it is clearly shown that the ratio with shock long term debt increases, same is the ratio with which

value of the firm decreases. Same findings has been revealed by the researchers (Xin, 2014), (Khan et al., 2016), (Bao & Lewellyn, 2017) and (Hussain, Hussain, & Awais, 2015). The supportive researchers are (Raqeeb & Zaidi, 2012), (Le & Phan, 2017) and (Arbor, 2005).

In current research, an insignificant relation of short-term debt and total assets of firm has been observed. A mixed relation has been shown in past studies. A positive relation has been shown by (Berger & Di Patti, 2006; Coricelli, Driffield, Pal, & Roland, 2011), while negative relation had been revealed by studies of (Al-Taani, 2013; Arbor, 2005). Total percentage of shares owned by managers, directors or CEO of the firm stand as managerial ownership. The results from studies of Pakistan financial firms show that there is no relationship between firm performance and Managerial ownership. But the past studies showed that there is a positive relation (King & Santor, 2008), and (Ozili, 2018).

### 5.1 Conclusion

In current research, researchers majorly investigate the impact of Ownership Structure (OS) and Capital Structure (CS) on firm's value by considering different proxies of these variables. The researchers found a

positive and significant impact of OS on Firms value. The findings also show a negative and significant effect of CS on firm's value. The major limitation of this research is sample size as current study only incorporate non-financial firms in Pakistan. The researchers suggest that future research may conduct on financial sector as well as use other proxies to measure the observed variables. This research is helpful for every company management to keep the optimal capital structure. This research can provide help for the government and policymakers. This study concluded that companies should try to avoid long-term debt as this has a negative impact on company performance.

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