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Abstract

This study examines the influence of ownership structures on firm leverage and value among non-financial firms listed on the Pakistan Stock Exchange (PSE). Moreover, this study aims to offer actionable insights for investors to select utmost effective ownership structures for making good strategic investment decisions. The empirical analysis of this study examines (20) non-financial firms Pakistan Stock Exchange (PSE) over 2015-2018. This research employs panel data techniques such as chow test, Breusch-Pagan test, and Hausman test, Pooled Ordinary Least Squares (OLS) elect suitable econometric model. Variables of this study leverage dependent variable, institutional ownership independent variable and control variables are managerial ownership, ownership concentration, female in board, MTB ratio, firm size and firm age. The empirical analysis shows that institutional ownership is inverse significant associated with firm leverage. The control variables are ownership concentration, audit committee, and negative and insignificant association with firm leverage. No. of board, MTB, and Firm Size have a negative significant association with firm leverage. Whereas, Non-Executive Director, Audit Committee Non-Executive Director, HR Committee, HR Non-Executive Committee and Firm age have positive insignificant association with firm leverage. The findings of this study highlighted the crucial role of strong corporate governance in sustaining lower leverage ratios. Effective corporate structures, noticeable by significant institutional ownership and active governance, assist to reduce agency conflicts and improve firm value.

Keywords: Institutional Ownership, Leverage, Random Effect Model, Pakistan Stock Exchange

1. Introduction

Corporate governance, introduced in Pakistan in 2002, aims to implement flexible policies tailored to various ownership structures to promote business growth. Research by Shleifer and Vishny (1986) highlights that institutional ownership can significantly influence a firm's leverage by improving monitoring and governance. Jensen and Meckling (1976) further argue that this enhanced oversight reduces the agency costs associated with debt. Additionally, Gillan and Starks (2000) suggest that institutional investors often prefer firms that utilize debt efficiently, leading to higher leverage to maximize growth opportunities. Subscription of shares gave the individual and institutions a right of ownership along with investment. This type of shares subscription from the institutions is known as institutional ownership (Aghion and Tirole, 1997). According to Ilmas et al., (2018), shares held by public or private institutions such as financial and non-financial companies are treated as institutional ownership. Hayat et al., (2016) investigated 183 manufacturing firms of Pakistan during the period of 2009 to 2014 and revealed that institutional shareholding ownership ratio was 41% during the period of analysis. This research utilized institutional ownership of Twenty Pakistani firms quoted at Pakistan stock exchange over the period of 2015-2018. This study applied OLS model selected random effect model because p-value is less than 0.05, results show that there is negative and significant effect between institutional ownership and firm leverage (Jensen & Meckling 1976). Present literature explores how leverage and firm performance impact corporate governance (Hitt, Hoskisson, & Harrison, 1991; Jensen, 1986), but it often neglects the conflicts among institutional investors and owners regarding leverage (Jensen, 1989). The purpose of this study to use agency theory to contextualize these effects, and to address this gap by examining the the impact of institutional ownership on firm leverage within the Pakistani economy. It aims to identify effective ownership structures that influence leverage and enhance firm value. Additionally, the study seeks to provide actionable insights for investors in selecting optimal ownership structures to improve their investment decisions.

2. Literature Review

Marriam Rao et al., (2020), the impact of concentrated leverage and ownership on firm performance in Pakistan. The experimental analysis of 141 companies as sample data was collected and extracted from the Karachi Stock Exchange (KSE) from 2008 to 2018. The test method used a panel-based regression model and applied generalized methods to estimation equations. This result shows ownership concentration and a positive significant relation between debt influence on firm performance.

Rabeea Sadaf et al., (2019) this study investigates the institutional ownership and simultaneity of strategic financial decisions, data collection 170 firms as a sample from the different sectors of the Pakistan Stock Exchange (PSE) from 1994 to 2014. An empirical model is used for data analysis OLS regression model, results show negative relationships between institutional ownership and a firm's leverage decisions and a positive relationship with a firm's dividend decisions.

Maqbool Ahmad et al., (2019) the research paper explores the impact of institutional ownership on firms' performance evidence from Pakistan, during the empirical analysis of data taken from the Karachi Stock Exchange (KSE) 169 non-financial 169 firms taken as a sample, in the period of 2007 to 2011, panel data analysis selected OLS (Ordinary Least Square model) applied for estimation of the relationship of variables. The result reveals that Institutional ownership has a negative significance with leverage, while, size liquidity and growth opportunity have a positive significant association among them.

Adnan Ali & Attaullah Shah (2015) analysis of firm performance on leverage and ownership structure. This research data has been taken from the Karachi Stock Exchange (KSE) 355 listed non-financial firms as a sample, from 2003 to 2008. The test applied a simple regression model, and the results suggested a significant negative effect on the market-based performance at both high-level and low-level leverage on ownership structure.

Teguh Gunawan Setyabudi (2021) this study investigated the impact of institutional ownership, profitability, and leverage on dividend policy data extracted from 138 manufacturing firms listed on the Indonesia Stock Exchange, sampling period 2016 to 2018. The empirical model used Path Analysis and suggested that all three factors significantly influenced dividend policy.

2.1. Hypothesis Development

H1: Leverage has significant negative relation with Institutional Ownership.

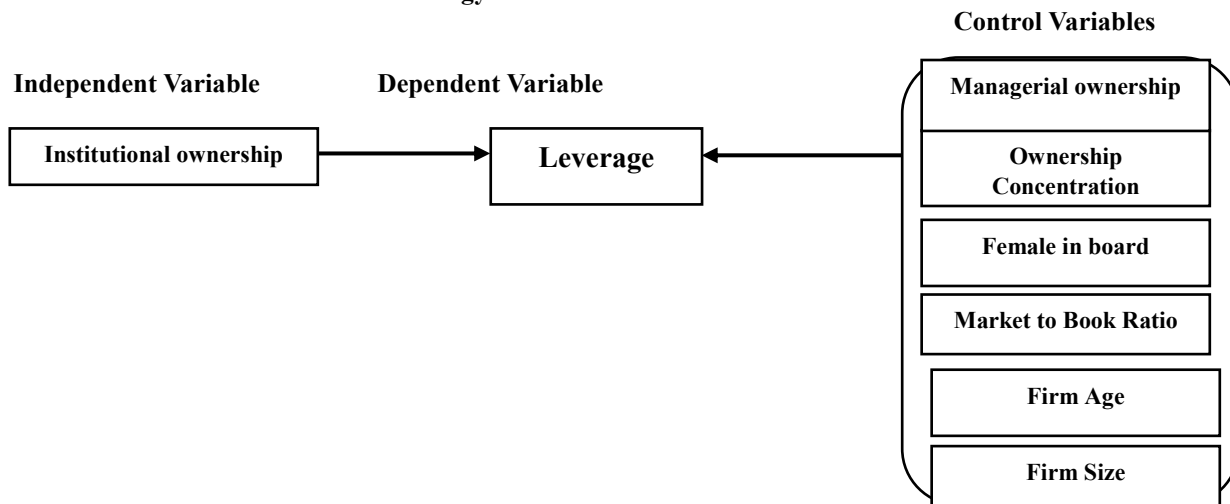
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Modigliani and Miller (1958), presented irrelevancy theory of capital structure. Krishnan and Moyer (1997) examined the leverage with firm performance found no significant effect. Imply more leverage can gain on large fixed asset argue by Marsh (1982) and Walsh and Ryan (1997). Whereas, correlation between firm's performance and leverage found no significant. On other side, different studies justify the positive and significant linkage with firm performance on leverage in contrast with irrelevancy theories have shown. Margaritis and Psillaki (2010) considered firm's performance on leverage positive connection, also examine that the leverage important element for those firms that have fewer growth opportunities and established. Abor (2005) observed the due to higher interest expense lead towards negative impact of leverage on firm's performance. Discourage leverage financing and impact firm's profitability negative linkage of firm's performance with leverage as compared with European countries (Rao et al., 2007). In distinction with the above arguments, many types of research showed the negative linkage between leverage and firm's performance hypotheses is developed for this research.

H2: There is a significant negative effect of institutional ownership on leverage.

Mutual funds, insurance companies, Islamic banks, investment management funds companies, pension funds companies they are institutional owners (IO) as considered institutional investors that trade in financial stocks in high size. These group of institutional investors has the ability to change corporate practices and also lead to change the governance mechanism (Bushee, 1998). The huge fund placement, these institutional investors can influence for the organizational performance, offering high incentives to managers for their good decisions and close monitoring (Shleifer and Vishny, R 1986). The conflict between shareholders and manager agency theory debates and this tool of corporate governance to mitigate the agency problems, which negative significant relationship on leverage (Jensen & Meckling 1976). Shleifer and Vishny (1986) examined the positive correlation relationship between institutional owners and due to effective monitoring on firms' performance. On the above following researcher discussed to explore the suggestion of institutional owner's firm's performance subsequent hypotheses is established.

3. Theoretical Framework & Methodology



3.1. Sample

This research study has taken Twenty (20) firms of cement sectors as a sample of the data from the PSE (Pakistan Stock Exchange) for the duration of (2015 to 2018), the (BSA) Balance Sheet Analysis of the Pakistan State Bank website, and on the other hand annual reports are generated of their respective websites of the firms.

3.2. Model

This study uses the penal data technique applied as the data cross-sectional and time series nature of the relationship between institutional ownership and firm leverage (Baltagi, 2008). The suitable model among the three has been selected before applying penal data, for the possible Descriptive statistics, the problem of heteroscedasticity and multicollinearity White test, Variance Inflation Test, and Hausman Test have applied to the selected Random Effect Model, have been applied.

The empirical model as under.

$$LEV_{it} = \alpha + \beta 1(IOW)_{it} + \beta 2(MOW)_{it} + \beta 3(OWC)_{it} + \beta 4(FB)_{it} + \beta 5(MTB)_{it} + \beta 6(AGE)_{it} + \beta 7(SIZ)_{it}$$

4. Result and Discussion

4.1. Descriptive statistics

As mentioned above table 1 indicates that the sample firms have a mean leverage of 43.78% with restrained variation. In comparison, the institutional ownership averages 10.12%, likewise, ownership concentration is about 42.33%, together with high changeability, similarly board ordinarily has around 2 members, and about 56% are non-executive directors. The audit and HR committees are moderately sized, with 60% non-executive members. The averaging 8.69, market-to-book ratio varies widely suggesting firms are usually well-valued. Firm age and size are comparatively consistent crosswise of the sample.

4.2. Tests for the selection of suitable model

4.2.1. Chow test

Section between the pooled OLS and fixed effect model.

H₀: Preferable model is (Pooled OLS Model).

H₁: Preferable model is (Fixed Effect Model).

The current study's null hypothesis has been accepted and the pooled regression model for the present study because the p-value of the current research is 0.061 which is larger than 0.05 which means that an alternative hypothesis has been rejected.

4.3. Variable Analytical Tests

4.3.1. For heteroskedasticity Brush Pagan/Cook Weisberg test

The random effect and pooled OLS model will be run with robust standard error current results have a p-value less than 0.05 which indicates that there is a heteroscedasticity problem in the data. $\chi^2=1.04$ with p-value = $\text{Prob}>\chi^2 = 0.01$

4.3.2. Multicollinearity Test

Table 1

Variable	Observation	Mean	Std. Dev.
Leverage	80	0.4377613	0.1604707
Institutional ownership	80	0.1012355	0.0911245
Ownership concentration	80	0.4233293	0.3064204
No of board	80	2.037844	0.1146595
Non-executive director	80	0.5590972	0.1489764
Audit committee	80	1.287689	0.2292148
Audit non-executive	80	0.5972917	0.2040973
HR committee	80	1.191375	0.1827859
HR non-executive	80	0.5654167	0.23937
Market to book ratio	80	8.692691	6.334037
Firm size	80	7.149	0.5293694
Firm age	80	3.608058	0.3144431

Table 2: Result of Multicollinearity Test

Variable	VIF	1/VIF
Audit committee non-executive	3.83	0.261081
Audit committee	2.89	0.345851
Non-executive director	2.87	0.348019
HR Committee	2.26	0.442303
HR non-executive	2.08	0.479978
Firm size	1.98	0.506039
Market to book ratio	1.53	0.652469
Ownership concentration	1.46	0.68449
Firm age	1.45	0.691105
No of board	1.23	0.811655
Institutional ownership	1.11	0.897149
Mean VIF	2.06	

Table 3

Prob>chi ² 0.0000		R ² = 0.0855		
leverage	Coef.	Std. Err.	z	P>z
Institutional ownership	-0.35701	0.185255	-1.93	0.054
Ownership concentration	-0.06668	0.064444	-1.03	0.301
No. of board	-0.35958	0.148652	-2.42	0.016
Non-executive director	0.280719	0.149959	1.87	0.061
Audit committee	-0.0257	0.089976	-0.29	0.775
Audit committee non-executive	0.009709	0.126338	0.08	0.939
HR	0.110526	0.094409	1.17	0.242
HR non-executive	0.064588	0.076299	0.85	0.397
Market to book ratio	-0.00556	0.002383	-2.33	0.020
Firm size	-0.12043	0.041837	-2.88	0.004
Firm age	0.11346	0.067897	1.67	0.095
_cons	1.436933	0.526904	2.73	0.006

4.4. Random effects GLS regression model

The table (4.5) above results of the random effects model. Which are highly significant Prob>chi² value of 0.0000 recommends that the model perfectly forecasts the relationship amongst the dependent and independent variables. The variance in firm leverage on independent variables explain 8.55%. Institutional ownership has negative impact on form leverage but statistically significant with a p-value of 0.054 and a z-value of -1.93, and coefficient of -0.357. This recommends that an increase in institutional ownership leads to a minor reduction in leverage, line up with Agency Theory and studies by Jensen and Meckling (1976) and Jensen (1986). Control Variables: Ownership concentration is insignificant and negatively affects leverage with p-value of 0.301 and z-value of -

1.03 and coefficient of -0.066. This finding is consistent with research by Zhang (2013), due to potential default risks who noted that concentrated ownership may lead to difficulties in attracting long-term debt. Number of boards is significant at a p-value of 0.016 with a z-value of -2.42, the negative coefficient of -0.359 suggests that reduces firm leverage and an increase in board size, Jensen's (1993) dispute that greater boards may hard with decision-making. Non-Executive Directors while insignificant (p-value 0.061, z-value 1.87), with the positive coefficient of 0.280 suggests that increase in non-executive directors might to somehow increase firm leverage, as supported by Al-Najjar and Hussainey (2011) and Sheikh and Wang (2011). Audit Committee insignificant (p-value 0.775, z-value -0.29) with a negative coefficient of -0.025, representing that a rise in audit committee size to somehow condenses leverage. Audit Committee Non-Executives insignificant (p-value 0.939, z-value 0.08) and positive coefficient of 0.009, implying a slight impact on firm leverage. HR Committee Insignificant (p-value 0.242, z-value 1.17) with a positive coefficient of 0.110, suggesting a slight positive impact on leverage. HR Non-Executive Directors insignificant (p-value 0.397, z-value 0.87) and positive coefficient of 0.064, indicating a minimal positive effect on leverage. Market-to-Book Ratio significant (p-value 0.021, z-value -2.33) and negative coefficient of -0.005, implying that higher market-to-book ratios are linked with lower leverage. This is consistent with the findings of Rajan and Zingales (1995) and Frank and Goyal (2007). Firm Size significant (p-value 0.004, z-value -2.88) and negative coefficient of -0.120, indicating that bigger firms tend to have lower leverage, (Himmelberg et al., 1999). Firm Age insignificant (p-value 0.095, z-value 2.73) and with a positive coefficient of 0.113, suggesting that older firms might minimally increase their leverage over time, as noted by Fama and French (1992) and Strong and Xu (1997).

5. Conclusion

This study concludes the characteristics of corporate governance in Pakistan which reflect a unique ownership structure. This research revealed that institutional ownership negatively impacts firm leverage, on the other hand, ownership concentration has an insignificant but negative effect. Leverage is reduced by its larger boards, and positive influence on non-executive directors shows minimal effect. Similarly, a slight negative impact on the audit committee, with minor positive effects on its non-executive members and the HR committee (including non-executives). The significantly reduces leverage by market-to-book ratio, while significant relationships show firm size and firm age has positive insignificant. R² model is 0.6015, which indicates that the 60.15% variation in leverage of the, by explained independent variable and control variables, the p-value is 0.0000, which is statistically significance and overall model confirming the institutional ownership negative significant effect on leverage, support agency theory. Moreover, the financial firms listed in PSE need more attention than non-financial firms. This study recommends that firms maintain higher institutional ownership to decrease the firm leverage.

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