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Ownership Structure and Firm Performance: Evidence from Pakistan Stock Exchange Listed Firms

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ABSTRACT

Firm performance always remained an area of interest for all stakeholders including stockholders, creditors, management, government, suppliers, etc. So far, several internal and external factors that contribute to the performance of a firm, have been identified by the researchers. Along with different external factors, the ownership structure is also considered an important factor contributing to firm performance. Various studies have found that the relation between ownership structure and firm performance is not straightforward. This relation is influenced by a number of other factors. The decision-making of a firm is affected by the ownership structure, based on the level of control different owners have over the organization. While conducting the research, the researcher has considered other factors like retention ratio, increase in debt level and firm's size along with the different dimensions of ownership structure. This study has adopted the quantitative approach to study and analyze the relation between the selected variables in the model. The data has been collected from annual reports of different manufacturing companies. Stata software has been used to analyze the data. The findings of the study are mixed; stating that family and institutional ownership have a significant impact on the firm performance in the presence of the control variables (retention ratio, increase in debt level, and firm size) leading to the fact that firms with concentrated ownership tend to perform better in Pakistan as controlling shareholders have stronger incentive for controlling and monitoring the performance of the management team.

Keywords: Ownership Structure, Firm Performance, Managerial Ownership, Institutional Ownership, Family Ownership

INTRODUCTION

The ownership structure of a company/ firm describes by whom the company is

owned. Companies having private structures have control over the buying, and selling of shares while companies that have public ownership have their shares traded by the general public in the open market. The decision-making process of a corporation may be influenced by its ownership structure. Businesses with a small number of very powerful owners tend to provide greater voice to all shareholders, including minority owners, in major policy decisions, in contrast to those with more concentrated ownership. The internal structure of a company and the responsibilities and privileges of the people who have a stake in it are both addressed by the ownership structure. The ownership structure of a corporation has an impact on how the organization makes decisions (Dayal Pandey & Nath Sahu, 2023). Companies having concentrated ownership have strong control over decision-making. On the other hand, more pow.er is given to minority shareholders in companies that have less concentrated ownership.

Ownership structure is also defined as the distribution of ownership rights and control of a firm. Strategies, investments, and capital raising all impact a company's capacity to execute, making it a key performance indicator (Di, 2021). Some popular methods to assess ownership structures include concentration of ownership, institutional ownership, insider ownership, family ownership, and foreign ownership. Another popular approach to assess ownership is by looking at the percentage of shares owned by the biggest shareholders. Another typical metric is the percentage of shares held by insiders, such as managers and directors, and by investors from outside the nation of the firm's headquarters, who are considered foreign owners.

According to Boyd and Solarino (2020), there are different types of ownership in a corporation, including managerial, institutional, and family ownership. The ownership structure impacts an organization Key Performance Indicator (KPI) (Demsetz & Lehn 2019). An effective ownership structure can resolve the conflicts (emotional, cognitive and competing interests) between the stakeholders. According to Soliman et al. (2018), there are three different types of ownership for a business: managerial, institutional, and family ownership. According to a study by Ullah. et.al. (, 2019). A connection between firm KPI and ownership structure and that if the company is generating good profits, the shareholding and wealth of the shareholders is more likely to increase.

Previous studies have shown that companies with more management ownership, higher levels of ownership concentration, or institutional ownership tend to perform better. This adds to the growing body of research suggesting that a company's ownership structure may significantly affect its performance. One of the most important aspects of a company's performance is its ownership structure. Size of the business, growth in debt, and retention rates are important confounding factors to think about when studying the correlation between ownership structure and financial performance.

Research on the effect of ownership structure on company performance is mixed, with some studies indicating a positive correlation and others indicating no correlation at all. Hence, further studies are required to examine how different forms of ownership affect business performance (Makni, Francoeur, & Bellavance, 2018). Additionally, there is a chasm since management's and investors' interests are not entirely congruent. Management and institutions are seen to perform better when

they have a larger stake in the company. When managers have a larger stake in the company, their interests are more closely tied to the investors'. Institutional ownership may also lead to stronger control of management's activities, which in turn improves the firm's performance (Ahmad, et al., 2024; Rehan, et al., 2024; Mohammad, et al., 2024). There is limited research with varying results in this area in the context of Pakistani firms (Ali et al., 2015, Mehta et al., 2023). Since performance is also affected by several other factors, therefore, this study includes them as control variables e.g. size, increase in debt level, retention ratio, etc. Limited work is available in this area in Pakistan by Akhtar et al. (2014).

This study fills a gap in our understanding by examining the effect of ownership structure on business performance in Pakistan, an area where very little research has been conducted. The research examines a group of Pakistan Stock Exchange-listed firms to determine the relationship between company performance and family, institutional, managerial, and concentration ownership. Due to a dearth of literature, this research sought to fill that gap by investigating the correlation between ownership and business performance in Pakistan. No studies have looked at the correlation between ownership structure and company performance outside of Pakistan (Adler, 2022). This goes against research conducted in the US, UK, and China.

Firm performance always remained an area of interest for all stakeholders including stockholders, creditors, management, government, suppliers, etc. So far, several factors that contribute to the performance of a firm, have been identified by the researchers. Along with different external factors, the ownership structure is also considered an important factor contributing to firm performance.

There is a need for conducting research on finding the impact of ownership structure on firm performance as some studies conducted had limited scope and focused on specific industries that might not be representing the broader Pakistani environment (Rashid Khan et al., 2020). The findings of those studies were not generalizable to other companies or industries (ul Haq (2017; ul Haq et al., 2012). The sample size of previously conducted studies was small which limited the generalizability of the findings of the study as a small sample size cannot be representative of the broader population of Pakistani firms (Arslan, 2022).

Additionally, it is important to learn about and put to the test the agency hypothesis, which states that a company's ownership structure is a key component influencing its success. Due to the high concentration of family ownership in Pakistani businesses, this research is necessary to shed light on how ownership affects company performance. The data is particularly relevant to Pakistani organizations. When insiders, family members, or large institutions possess a disproportionate amount of a company's stock, we say that ownership is concentrated. The overarching goal of this research is to fill in certain gaps in our knowledge about how different types of ownership affect business success in Pakistan.

LITERATURE REVIEW

Ownership structure is defined as the distribution of ownership rights and controls in the firm. These rights and controls may be complex and multi-faced and involve a variety of different types of owners including individuals, families, institutions, and government. Firm performance is the extent to which goals and

objectives are achieved by the firm. This structure has been shown to affect a firm's performance, with various studies examining the impact of ownership structure on firm performance in different situations.

The correlation between company ownership and financial success has been the subject of much study (Arslan, 2022). According to Dayal Pandey and Nath Sahu (2023), there is conflicting evidence in the research. Others studies have discovered a positive correlation, others have found a negative one, while yet others have failed to detect any association at all. The concentration of ownership, or the percentage of shares held by a small number of shareholders, is one of the most important determinants of the correlation between ownership structure and business performance. Experts and investors have long been curious in the connection between a company's ownership structure and its financial success.

Ownership Structure and Firm Performance

There has been a lot of research on the complicated relationship between ownership and corporate performance. Economic success and market-based performance metrics are positively correlated with ownership concentration, according to the prior research. Since there are a lot of ways in which an organization's ownership structure may impact its performance, there is a strong correlation between the two.

An ownership structure may assist bring managers' and owners' interests closer together, which is useful since agency problems can arise when managers' and owners' interests are at odds. The ownership structure impacts the firm's performance since it determines how the firm's management is governed and monitored. In order to improve the firm's performance and decrease the danger of fraud, larger investors are increasingly interested in regulating and monitoring the company's management. The ownership structure of a company may impact its performance by influencing the availability of its resources. By giving the business access to resources, large investors may boost the firm's performance, allowing it to develop and expand.

For a long time, FP and ownership structure have been the main topics of discussion among academics, researchers, and decision-makers. This relationship is contingent upon different ownership arrangements that manage investment strategies apart from the investment timeframes that could impact financial performance (Kuo et al., 2020). According to Yasser et al. (2017), variations in the monitoring of those that the shareholders can carry out account for the direction of this association (Hameed & Akhtar, 2023; Rana, & Tuba, 2017). Mardnly et al. (2018) discovered that the board's monitoring responsibilities have grown in importance in this regard. Additionally, the ownership structures of businesses are the primary basis for how CG mechanisms organize them, which in turn affects board choices (Bashir, Saba & Hussain, 2023; Fatima, & Saba, 2020; Fatima, et al., 2020). However, some earlier research asserts that conflicts of interest between shareholders and management could result from the ownership structure. This conflict has the potential to reduce the value of the company, particularly if managers prioritize maximizing their own interests over the demands of the owners (Khan & Zahid, 2020).

Managerial Ownership and Firm Performance

Managerial ownership is the percentage of a company's total shares held by its

management. Researchers interested in researching corporate performance have found this issue intriguing. Some studies have shown that management ownership has an effect on output and company success. Numerous studies have sought to analyse and explore the effect of ownership on business performance by grouping all corporate owners into a single ownership structure, and a great deal of research has focused on the link between managerial ownership and firm performance (Irshad, Malik, & Sarfraz, 2023; Malik, Sarfraz, & Seemal, 2021). Some research has shown a favorable correlation between management ownership and business success, whereas other research has found the opposite to be true. Managerial ownership does not always correlate positively with company success, according to prior research. There is no entrenchment impact at management ownership levels over 5%, according to the conclusions of certain writers (de Villiers, 2000). The authors Mandacı and Gumus (2010) discovered a favorable correlation between management ownership and business performance in a research that was carried out in a Turkish nation using data gathered from non-financial enterprises (Azhar, 2024). There was a positive correlation between management ownership and business performance in 48% of the UK-based enterprises whose data was sourced from another research (Short & Keasey, 1999).

The complicated and multi-factoral nature of the link between management ownership and business performance suggests that managerial ownership may, in general, improve firm performance. Both the nature of the business and the degree of ownership have the potential to impact and complicate the nature of the interaction between these variables.

Therefore, it can be said that:

Institutional Ownership and Firm Performance

A portion of a company's stock is owned by institutional investors including pension funds, mutual funds, and hedge funds. The effect of institutional ownership on a company's profitability is an intriguing topic for both investors and academics. Institutional ownership is positively correlated with corporate success, according to research (Tsouknidis, 2018). Using tools like panel data and regression analysis, a number of research have looked at this correlation (Afzal, Khan, & Sikandar, 2023; Shehzad, Khan & Noor, 2023). The research found that institutional ownership and company performance are asymmetrically related. According to the Azhar, Iqbal and Imran (2025), in the first regime, institutional ownership is associated with an increase in firm performance, whereas in the second regime, the opposite is true. As institutional representatives have more of an incentive to keep an eye on the company's management, prior studies have shown that having them on board increases a company's firm value (Khan, Farooq & Kamal, 2023; Clay, 2002). Having a larger number of institutional investors could influence the board of directors' choices. A research conducted by Chaganti and Damanpour (1991) found that the ownership of independent institutions had an effect on business performance and a positive relationship between institutional ownership and firm value. Along with deregulation, changes in institutional ownership, and endogeneity, institutional ownership impacts company performance. The connection between institutional ownership and business value is influenced by capital structure as well. The effect of

capital structure on company value could be different for different KPIs.

An indicator of institutional ownership is the large proportion of firm shares held by the institution. The institutions in this case are banks, investment firms, insurance companies, and private companies. High ownership is usually indicative of institutional ownership, which leads to a more efficient management monitoring system (Kepemilikan et al., 2018). Representing a specific group of shareholders who own a sizable portion of the stock, institutional investors are important players (Raimo et al., 2020). Through increased oversight, institutional ownership can contribute to improved managerial performance (Hapsari et al., 2019).

Previous research has consistently shown that institutional ownership increases a company's worth. This effect, however, differs from one firm's capital structure to another, as well as from one kind of institutional investor to another (Abedin et al., 2022). Thus, it is reasonable to conclude that institutional ownership improves business results.

Family Ownership and Firm Performance

Family ownership is common ownership in many companies and has been of common interest to researchers due to its impact on firm performance. Due to the fact that family members act as controlling stakeholders and senior management, prior research has shown a favorable correlation between family ownership and business success (Li & Ryan, 2022). Studies have shown that as the percentage of ownership increases above the ideal level, company performance begins to decline, but when family ownership increases, business performance improves. Many other elements, such as the size of the business, family control, and family management, might affect the effect of family ownership on firm performance (Chu, 2009). Research also shows that firm value that is measured by Tobin Q increases with a decrease in family ownership over time. Firms are likely to have lower capital expenditure and less to invest in development and research having higher family ownership (Dyer, 2018).

The analysis of management practices and organizational structure is the foundation of research on corporate performance. In general, a review of the company's financial statements and market value is used to assess its success. A company's financial success may be summed up as follows: raising revenue, cutting expenses, raising profits on total assets, and raising profits for shareholders. Financial measures such as return on assets (ROA), return on equity (ROE), and return on invested capital (ROI) are commonly utilized to assess the success of a company (Azhar, 2024). In addition, market variables including the organization's structure, business operations, and the increase in the market capitalization of stocks are used to assess the performance of the firm. The market price to earnings per share (P/E) ratio and the market capitalization plus book value of debt to total assets (Tobin's Q) ratio are two often used indicators. Numerous earlier research on business performance have made use of Tobin's Q. This research looks at firm performance from two angles: market indicators and financial statements (ROA [EBITDA] and ROA [NI]). Family-controlled businesses are found to be better in terms of profitability and market valuation than firms with non-controlling shareholders in Western Europe (Maury, 2006). Overall, it can be said that family ownership can have a positive impact on firm performance.

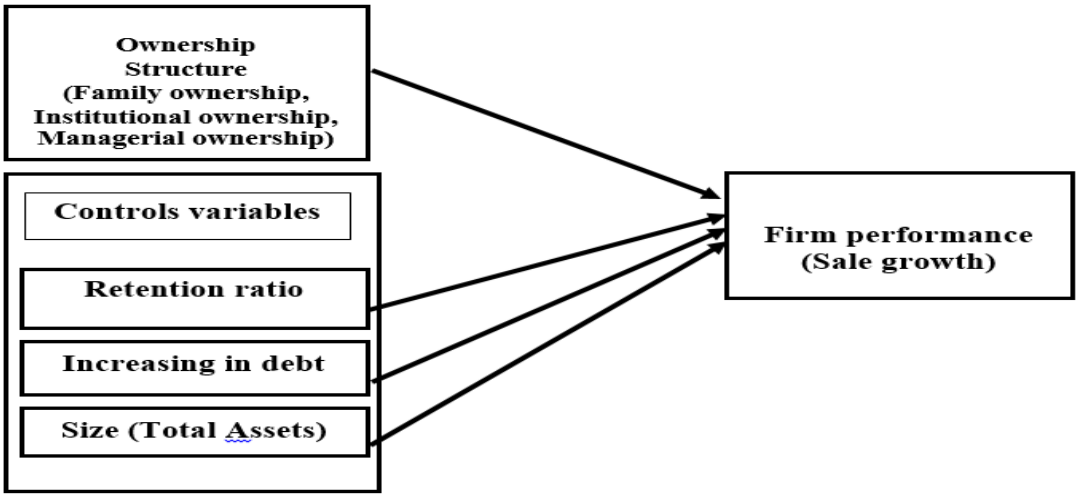
The Size of the firm and Firm Performance

The relationship between the size of the firm and its performance has been studied extensively and mixed results have been found by the researchers. Firm size has a significant impact on diversification and profitability. Small firms have different characteristics that affect their performance (Abdullah et al., 2018). Larger firms have higher profitability but lower productivity while in older firms the situation is the opposite.

The past literature suggests that the relationship between firm size and performance. Larger firms tend to have lower productivity and higher profitability while small firms have different characteristics that affect their performance. Managers should therefore consider the unique characteristics of the firms and industry in which they are operating while making decisions about the size of firms.

H4: The size of the firm has a significant impact on firm performance.

Theoretical Framework



Source: Proposed by the Authors

Hypotheses of the Study

There is still a lot of curiosity in how different types of ownership affect risk-taking, management behavior, and the overall success of a company. Under these circumstances, a theory develops proposing the relationship between ownership structure and business performance while controlling for firm size, retention ratio, and debt levels. In order to find out how different types of ownership affect a company's performance, researchers will test the hypothesis that this is the case.

H_1: Ownership structure has a significant impact on firm performance.

H_{1a}: Managerial Ownership has a significant impact on firm performance.

H_{1b}: Institutional ownership has a significant impact on firm performance.

H_{1c}: Family ownership has a significant impact on firm performance.

H_2: Retention ratio has a significant impact on firm performance.

H_3: Increase in debt level has a significant impact on firm performance.

H_4: The size of the firm has a significant impact on firm performance.

METHODOLOGY

This part also justifies the design choice by the researcher by showing that the chosen technique and methods are the best fit for achieving the research objectives,

and aims and answering research questions. Research methodology also aims to ensure that results are valid and reliable and can be trusted by other researchers. This chapter throws light on the research philosophy along with research methods adopted for conducting the research.

Population in research is defined as the entire group of people, organization or objects that the researcher is interested in studying. The population in this study is all manufacturing public limited companies listed on the Pakistan Stock Exchange in the years 2012-2021. However, the target population of this study is only the manufacturing firms listed on the stock exchange during the sample time period. Firms with complete data for the entire time period will be included in the study.

The sample is used to collect data from companies' annual reports. The sampling method in this study is purposive sampling. As reported by Sugiyono (2013), the purposive sampling method is a sampling approach with particular discussions. The method of data analysis in this research is panel regression analysis. Therefore, the data has been collected for 40 manufacturing firms over the 10 years' time. The sample includes 40 firms with complete data on ownership structure and financial performance for the years 2012 to 2021. Any firm which is not listed during the entire period has been excluded from the sample. Similarly, firms that do not provide complete data on ownership structure has been excluded from the sample. The ownership structure data has been collected from the firms' annual reports. The study used approximately 386 usable observations. This number of observations is sufficient for a study of this nature (Zhang et al., 2021).

In this research, data was collected from secondary sources. Data for the analysis was collected from the financial reports of the companies available on the official websites of the company. Panel data of the selected companies was collected from 2012-2021. Data analysis is the process of inspecting, cleaning, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making.

This study adopts the quantitative approach to study and analyze the relationship between the selected variables in the model. The data has been collected from annual reports of different manufacturing companies. E-Views and Stata software have been used to analyze the data. First of all, the data has been described by using descriptive statistics. Afterward, the correlations analysis was carried out, and by following Ullah, Akhtar & Zaefarian, 2018), the Durbin-Wu test was used; first, the research model was run, and a residual term was obtained. This residual term was then used as the dependent variable, and each independent variable was used as an explanatory variable one at a time. If any independent variable produced significant results when combined with the residual term, endogeneity was confirmed, and the generalized method of moments was advised.

The results show the presence of endogeneity, therefore, by following Chatterjee and Nag (2022) the generalized method of moments has been taken into account to address the issue of endogeneity.

Table 1: Variables and Measurement Scale Description

Sr#	Variables	Equation	Source

1	Ownership structure	Family Ownershion = Shares Held by Family Members /Total Shares outstanding Institutional Ownership= Shares Held by Institutions/ Total Shares outstanding Managerial Ownership = Shares Held by Managers /Total Shares outstanding	Ross, Westerfield, & Jordan (2018) & Rahman & Uddin (2020)
2	Firm performance	Sale Grwoth Rate = (Current year Sales / Last year sale) − 1	Ismail (2021)
3	Retention ratio	Retention ratio = 1 − Payout ratio	Li, Chen, & Tang (2021)
4	Increase in Debt	(Current year debt/Last year debt)-1	Alves, Couto, & Francisco (2021)
5	Firm Size	Ln(Assets)	Bianconi, & Yoshino (2021)

Econometric Equation

To examine the impact of different ownership structures (managerial, institutional, and family) on firm performance, while controlling for retention ratio, increasing in debt, and size, I have used the following equations:

Overall Equation for all Dimensions of Ownership Structure and Firm Performance

$$FP_{i,t} = \beta_0 + \beta_1 (MO)_{i,t} + \beta_2 (IO)_{i,t} + \beta_3 (FO)_{i,t} + \beta_4 (RR)_{i,t} + \beta_5 (Idebt)_{i,t} + \beta_6 (FS)_{i,t} + \beta_7 AR(1) + \beta_6 AR(2) + \varepsilon_{i,t} \quad \text{..... (1)}$$

Whereas:

FP represents Firm Performance
MO represents Managerial Ownership
IO is for Institutional Ownership
FO is for Family Ownership
RR shows the Retention Ratio
IDebt is for the Increase in Debt
FS shows the Firm's Size
AR1 and AR2 represent are the auto-correlation terms

Moreover, the panel data has been used to test the research model, therefore, “i" is used for companies, and “t” represents the year in the econometric equation

RESULTS AND DISCUSSION

In descriptive statistics, the average values, variation measured by standard deviation, and maximum and minimum values have been presented for all variables. In the second phase, the results pertaining to correlation analysis have been shown, which show the relation between all variables. Moreover, the testing of the hypotheses has been made by using the generalized method of moments (GMM).

In table 2, the results have been placed, which are pertaining to descriptive statistics, in which, the average results have been placed for all variables determined

by mean values. The results are also showing the variation in the data, which has been measured by using standard deviation. The results are also showing the maximum and minimum values in the series of all variables. A total of 386 observations for each variable have been used for analysis purposes.

Table 2: Descriptive Statistics

	FP	MO	IO	FO	IDEBT	RR	FS
Mean	0.057	0.236	0.393	0.087	0.103	0.428	22.632
Median	0.040	0.160	0.320	0.000	0.071	0.480	22.670
Maximum	0.720	0.690	0.950	0.850	0.690	1.000	25.780
Minimum	-0.580	0.000	0.000	0.000	-0.500	-0.980	18.360
Std. Dev.	0.227	0.241	0.288	0.207	0.247	0.404	1.453

FP=firm Performance, MO=Managerial Ownership, IO=Institutional Ownership, FO=Family Ownership, Idebt=Increasing in debt, FS=Firm Size

The results for descriptive statistics show that the managerial ownership (MO) has a mean value of 0.2504, which managerial ownership is 25.04%, This is only an average value, but the managerial ownership may differ from year to year and from company to company and this dispersion has been shown by using standard deviation i.e. 0.2737, which means managerial ownership may differ upto 0.2737 units from the average value. The maximum managerial ownership is 92% and the minimum managerial ownership is 0.

The results further show that institutional ownership (IO) has an average value of 0.4047, which means institutional ownership (IO) is 40.47% with a standard deviation of 0.3027. The maximum and minimum institution ownership is 99% and 0% respectively. In the case of family ownership, the results indicate that on average family ownership (FO) is 8% with dispersion in data of family ownership found as 0.2003 (20.03%). Both maximum and minimum family ownership (FO) are found 85% and 0%.

The results further indicate that an increase in debt (Idebt) has been found on average of 8.04% as growth in debt has been taken as a proxy of increase in debt (Idebt), moreover, this growth may change from year to year and from firm to firm as showing by the value of standard deviation, which is found as 0.4895, which means on average variation in debt growth is found 48.95%. The maximum growth in debt or increase in debt is found as 99% and the minimum decrease is -99%.

The results also show that on average retention ratio (RR) is found as 25.41%. The variation in retention ratio is found as 2.52 units. The maximum and minimum retention ratios have been found 5.18 and -48.59 respectively. The firm size has been proxied by taking the natural log of total assets, and on average firm size (FS) is found as 22.63, which means on average total assets of a company are Rs.6,731,070,286/- (Exponential of 22.63). These average total assets may differ up to 1.4918 units.

Correlation Analysis

In table 3, the results regarding correlation analysis have been presented. The results show that there is a weak correlation between all variables, especially between all explanatory variables. Some variables have negative correlations to each other and

some have positive relationships but all of them have weak relationships.

Table No. 3 Results of Correlation Analysis

	FP	MO	IO	FO	IDEBT	RR	FS
FP	1.000						
MO	0.092*	1.000					
IO	-0.059	-0.641***	1.000				
FO	-0.002	-0.329***	-0.332***	1.000			
IDEBT	0.103*	0.091*	-0.013	-0.094*	1.000		
RR	0.070*	0.084*	-0.232**	0.132*	-0.010*	1.000	
FS	-0.105*	-0.257**	0.198**	0.065*	-0.016**	0.047	1.000

FP=firm Performance, MO=Managerial Ownership, IO=Institutional Ownership, FO=Family Ownership, Idebt=Increasing in debt, FS=Firm Size , Significance level 5%, ***=sig at <0.001, **=sig at <0.01, *=sig at <0.05,

Family-owned businesses have a negative relationship with an increase in debt as businesses that are family-owned are more willing to invest their own money in businesses are pass on the cost of debt to future generations resulting in reducing debt levels and improving the financial position of the business. Family-owned businesses have a positive relationship with the firm performance as they are more interested in long-term growth and sustainability and may be less willing to make short-term decisions that may harm the long-term interest of the firm.

These results show that there is no big issue of multi-co-linearity of the variables and these variables may be used for further analysis. Hair et al., (2010) discussed that no issue of multi-co-linearity has occurred if the explanatory variables have a relationship less than 0.90, and in case of a higher correlation between independent variables, the question of multi-co-linearity may arise. Apart from it, Durbin Watson is the statistical test that is used to detect autocorrelation in the residuals. The amount of Durbin Watson varies between 0 and 4. A value of 2 indicates that there is no autocorrelation in the residuals.

Testing for the Presence of Endogeneity

Table 4 Testing of Endogeneity by Using Durbin-Wu-Test

	The residual term of the Research Model has been taken as Dependent Variable (DV=Residual)
Results of the Wu-Hauman Test	0.284** (0.0000)

Note: Residual term=Dependent variable, ***P<0.01, **P<0.05, *P<0.1 Parenthesis are demonstrating the P-values (P-values)

In Table 4, the results of the test for endogeneity have been presented. Following, Ullah, Akhtar & Zaefarian 2018) the test of Durbin-Wu was applied, in which first of all research model was run and the residual term was obtained, which was further used as the dependent variable and one by one independent variable had been as the explanatory variable and if any independent variable has shown the significant results with the residual term, then the presence of endogeneity is confirmed, which recommend applying the generalized method of moments.

As can be seen from Table 4 above a statistical value of 0.1466 is closer to zero

indicating that there is a positive correlation between the error terms that can affect the results of regression analysis. To avoid the problem of endogeneity and autocorrelation GMM method is used for analysis instead of regression analysis.

After the application of GMM regression, it can be seen from the results of Durbin Watson that is almost closer to 2 showing that there is no autocorrelation between the residual terms.

Testing of Hypotheses (Application of Generalized Method of Moments)

Table No. 5 shows the results regarding the testing of hypotheses obtained by applying the generalized method of moments. The results indicate reliability of model as Prob>chi2 is 0.0000. The results also show that the value of Hansen J-Statistic is 30.2247 with a P-value greater than 0.05 i.e. 0.697. This insignificance value of the J-statistic depicts the validity of the technique. The issue of autocorrelation is resolved at AR (1) as AR (1) is -4.049 with a p-value less than 0.05. While AR(2) is insignificant as observed in the results.

Table 5*:* Application of Generalized Method of Moment (GMM)

Dependent Variables	Co-efficient	Z-stat	P-value
MO	0.319***	5.64	0.000
IO	0.092**	2.26	0.024
FO	0.333***	4.87	0.000
Idebt	0.019	1.51	0.132
RR	0.041**	2.44	0.015
FS	-0.075***	-13.54	0.000
Constant	1.622**	12.23	0.000
AR (1)	-4.049(P-value 0.0001)		
AR (2)	0.175 (P-value 0.8606)		
No. of Observations	304		
Hansen J-Statistic	30.2247 (P-Value 0.697)		
No. Of Instruments	43		

FP=firm Performance, MO=Managerial Ownership, IO=Institutional Ownership, FO=Family Ownership, Idebt=Increasing in debt, FS=Firm Size, ***P<0.01, **P<0.05, *P<0.1

The coefficient of managerial ownership (MO) is 0.319 with a p-value less than 0.05. These results show that managerial ownership (MO) brings significant and positive change in firm performance. Therefore,

H_{1a}: Managerial ownership (MO) has a significant impact on firm performance is not accepted.

The results further show that the co-efficient of institutional ownership (IO) is 0.092 with a P-value less than 0.05 i.e. 0.024, which means the institutional ownership (IO) has a positive and significant influence on firm performance. If one unit of institutional ownership is increased then 0.092 units increased in firm performance is realized and vice versa.

Thus, the empirical results show that

H_{1b}: Institutional ownership (IO) has a significant impact on firm performance and is accepted at a 1% significance level.

The results of the generalized method of moments (GMM) further indicate that the coefficient of family ownership (FO) is 0.333 with a P-value of 0.000 (P-value <0.05). The results show that family ownership (FO) has a positive and significant influence on firm performance. These results show that if a 1% increase in family ownership has occurred then a 33.3% increase in firm performance is seen and vice versa. Therefore, the results show that the hypothesis

H_{1c}: Family ownership has a significant positive impact on firm performance and is accepted at a 5% level of significance.

In the study, three control variables are retention ratio, increase in debt, and firm size. The application of the generalized method of moments also shows that the control variables have also shown a significant influence on firm performance. The coefficient of the retention ratio is found as 0.041 with a p-value less than 0.05. The p-value is found as 0.015. This outcome shows that an increase in the retention ratio causes an increase in firm performance and vice versa. These results show that the retention ratio has a positive and significant influence on firm performance and if a 1% retention ratio is increased then 4% sales growth is increased, which is measured by firm performance. So, the statistical results show that the hypothesis.

H_2: Retention ratio has a significant impact on firm performance (FP) and is accepted at a 5% level of significance.

The results for other control variables show similar results as the coefficient of increase in debt (Idebt) is determined as 0.019 with a p-value of 0.132 (p-value > 0.05). The results show that an increase in debt has an insignificant influence on firm performance (FP), which means that if debt is increased then firm performance remains insignificant. So, the hypothesis is not accepted in this case which suggests that:

H_3: An increase in debt level has a significant impact on firm performance and is not accepted at a 5% level of significance in this research.

The coefficient of firm size (FS) is found as -0.075 and it has a p-value less than 0.00 (P-value=0.0000). These results show that firm size has a negative influence on firm performance. If total assets (Firm size) are changed by 1% then the firm performance observed the 7.5% change in the opposite direction. Thus, the results show that hypothesis

H4: Size of the firm has a significant impact on firm performance is accepted at a 1% level of significance.

Finally, in a nutshell, it is concluded that the empirical results show that all the hypotheses are accepted except the one based on statistical results.

In conclusion, it can be said that in calculating the results 304 observations were used for analysis. It is shown by the results that the value of Hansen J-Statistic is 30.224 with a P-value greater than 0.05 i.e. 0.697. This insignificance value of the J-statistic depicts that the over identifying of the instruments is valid. The issue of autocorrelation is resolved at AR (1) as AR (1) is -4.049 with a p-value less than 0.05.

The regression results of the study further show that the p-value is less than

0.05 based on which the hypothesis is accepted that MO has a significant impact on firm Performance. Results show that the coefficient of Institutional Ownership has a p-value that Is less than 0.05 showing that institutional ownership (IO) has a positive and significant influence on firm performance. If one unit of institutional ownership is increased, then a 9.2%-unit increase in firm performance is realized and vice versa. The results of the study further indicate that the coefficient of family ownership (FO) is 0.333 with a P-value 0.000(P-value <0.05). The results show that family ownership (FO) has a positive and significant influence on firm performance.

CONCLUSION

In this study, data was measured using descriptive statistics, average values, and variation. The results were measured by standard deviation, and maximum and minimum values and have been presented for all variables. In the second phase, the results pertaining to correlation analysis have been shown, which show the relationship between all variables. Based on this testing it can be concluded that the data was positively skewed and firms that have family ownership structures are less risker for investment and have better performance as compared to firms having managerial and institutional ownership structures. Moreover, the testing of the hypotheses has been made by using the generalized method of moments (GMM).

The findings indicate that MO significantly affects company performance. The findings also corroborate the hypothesis that IO significantly and positively affects company performance. Increasing institutional ownership by one unit leads to a 9.2% improvement in company performance, and the inverse is also true. There is a favourable and statistically significant relationship between family ownership (FO) and business success, according to the findings. Firm size, retention ratio, and rise in debt are the three control variables in the research. Using the generalised technique of moments, we find that the control variables including Firm size and retention ratio have a substantial impact on the performance of the company as well.

The complicated and factor-dependent nature of the interaction between these variables follows. Research results are significant when it comes to the effects of family and institutional ownership on firm performance. When controlling for retention ratio, increase in debt, and firm size, firms with concentrated ownership do better in Pakistan, likely because controlling shareholders have a stronger incentive to oversee and control the management team. This study highlights that ownership structure affects firm performance in the Pakistan Stock Exchange, supporting SDG 8 of sustainable economic growth and decent work. Firms listed on the Pakistan Stock Exchange, it is evident that ownership types significantly influence economic growth, employment opportunities, and the inclusivity of development outcomes.

Family owner-managed businesses seem to be the least profitable of all organizational models. When comparing performance to the business sector, only family enterprises with owner managers have an average score of less than 50%; when all firms are taken into account, only these firms have an average performance score of less than 30%. Businesses run by non-owner managers outperform those run by owners. These results imply that performance is enhanced by the contemporary style of corporate organization, which is the open corporation with distributed ownership and non-owner managers. Why "efficient" and "less-efficient" organizational

structures coexist is a question that critical readers may have. The likelihood is that we do not record a long-term equilibrium state. The likelihood is that we do not record a long-term equilibrium state. With time, it is expected that the underperforming family (and partnership)-controlled businesses will become public, non-majority held enterprises.

There are limits to this research, as there are to all studies. One caveat is that the research only looked at businesses in one developing nation (Pakistan), therefore the findings may not be generalizable. Additionally, the study's findings are based on a data sample that only comprises specific organizations and does not include financial institutions; the sample only spans a period of ten years. Financial institutions are not included in the statistics. The use of quantitative methods, such as regression analysis on panel data, is another caveat.

Research into what influences a company's success includes looking at its ownership structure. Managerial choices, macroeconomic variables, and industry circumstances are a few more important aspects that influence performance. Share repurchases, mergers, and acquisitions are only a few examples of the ways in which business activities may cause ownership to evolve over time (Górriz & Fumás, 1996).

From the study's limitations, it is clear that stakeholders want further investigation into the relationship between ownership structure and business performance; ideally, this investigation would use a qualitative approach. Due to the increased likelihood of stakeholders seeing the effect of employee motivation and individualized ownership structures on business performance, qualitative research is the method of choice.

Considering that the majority of previous research in Pakistan has concentrated on big, publicly traded companies, one suggestion is to broaden the scope of the study to include a variety of industries and businesses. Consequently, studies should be conducted using a representative sample of small and private companies from various industries. Most studies that have looked at this topic in Pakistan have been cross-sectional, meaning they only looked at the connection between ownership structure and the effect on firm performance at one point in time. To really understand how ownership structure affects performance, longitudinal studies are also suggested.

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