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EFFECTS OF FAMILY CONTROL ON FIRM VALUE AND FINANCIAL PERFORMANCE: EVIDENCE FROM NON-FINANCIAL SECTOR OF PAKISTAN

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ABSTRACT

This study examines the influence of ownership structure on the firm's financial performance and value in non-financial companies listed at the Pakistan Stock Exchange (PSX) during 2010-2015. The basic focus is the performance of family firms as compared to non-family firms. The distinction between both types has been considered. The PSX non-financial firms are a population for this study and sampling 120 firms are randomly extracted. Tobin's Q and ROA have been used to explore the firm value and a firm's financial performance. This study has incorporated three independent variables, i.e. firm type (family firm/non-family firm), ownership concentration and family firm type (founder firm/descendent firm). The data analysis techniques include descriptive, correlational, panel data regression analysis. Panel data techniques detect the significant relationships among the variables. This study finds that family firms are negatively correlated and non-family firms give better performance. Whereas concentrated ownership has presented significant relationship but negative correlation with ROA and Tobin's Q. On the origin of results, it is explored the performance of firm censoriously depends on managerial ownership. Panel data analysis shown that firm leverage and size have no relationship with proxy variables while remaining independent variables have a significant relationship with performance variables. Agency problems arise when managerial shareholdings enlarged in Pakistani perspective, which eventually affects firm performance.

Disciplinary: Multidisciplinary (Financial Engineering, Mathematics (Statistics)).

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1. INTRODUCTION

In current age extremely competitive and dynamic business environments, it has become vital to understand the causes which subsidize the financial performance of the firm and enhance the firm value. In this regard, the ownership structure of the firms has gained the interest of scholars in recent years. Many recent studies such as De Massis et al. (2015), Tahir et al. (2016), Wagner et al., (2015), Zattoni et al. (2015) have also focused on ownership structure and many other variables related to company features to judge the sway of family-owned firms on financial output of the company in many countries. For Pakistan, this issue has not yet been addressed in detail. Firms' efficiency relies on both properly designed and recommended ideal choices booked on the part of the business owner or positive growth output occurs and generally both are unavoidable. The important aspects allow a company to outshine its competitors in utmost aggressive sectors. Simply, single such crucial issue is the possession framework that impacts the company's possibilities to sustain and enhance efficiency in the future. Scientists examined the part and effect of possession components on the result of companies with regard to its efficiency and value. In growing financial systems, like in Asia two atomic power countries Pakistan and India getting a lot of attention to conduct the studies on family ownerships, the researchers explored the efficiency and productivity of family businesses. In this regard, pioneer research works were conducted by (Fama & Jensen, 1983, 1985; Jensen & Meckling, 1976).

1.1 THEORETICAL BACKGROUND

There are many findings from the perspectives of good and bad family companies. Dyer (2006) presented family-specific factors with the company's low efficiency when the main agency concept is central. If service providers (managers) and large owners have different goals, brokerage costs are serious, even though this is not an exclusive right to see. Jensen and Meckling (1976) have claimed that family businesses are likely to have lower organizational costs because entrepreneurs and family companies often have the same. Organizational costs are the cost of tracking service providers according to fundamentals and will increase with the company's development. As the need to track a carrier is not a problem when the entrepreneurs or carrier and administrators, supervisors are the same people, the organization's costs are not a problem for the basic executives of leading companies. However, members of family members controlled by the administrator may be the cause of higher or equal organizational costs than family businesses because the close relatives' interests depend on role management (Schulze et al., 2001).

Villalonga and Amit (2006) focused on companies run by family businesses and noted that family-owned companies only produce value if the creator remains the CEO of the company. The value created by the family effect is corrupted when someone receives it. Conversely, Orelan (2007) finds that family businesses have poorer results in Pakistan's industrial research than non-family businesses. Schulze et al. (2001) refer to the fact that mother and father altruism, dominates the audience about who they are, and not what they do, can also be comfortable with their children, despite being inadequate or clustered there can lead to the destruction of the company's added value. Family control can also lead to questions about "members of family members to the freer" because of mother and father altruism to their close relatives (Schulze et al., 2001). A similar result is confirmed by Villalonga & Amit (2006), where results from Fortune 500's 508 companies claim that family members in another age group eliminate the company's value. Schulze et al. (2001) not only show the

side effects of the parents' altruism, but the supervision of members of family members can also have a positive impact when altruism reduces organizational costs. The main customer's concept is not exclusive to family businesses. Non-family businesses can also influence the good and bad consequences of control management. Other considerations that affect the effectiveness of a family business despite the organizational concept are part of long-term investments in family-run companies that can support future years as family members (Gudmundson et al., 1999). Another factor for accessing history is the value of personal subsidiaries and members of family members, where children's popularity, especially in the services sector, is beneficial to customers and service providers (Dyer, 2006).

1.1.1 FAMILY FIRMS

A family firm can be well-defined as a business has two or more than two family members holding a majority of the ownership of the company. In this study, two major kinds of firms, i.e. family-owned firms and non-family owned firms, are considered the criteria for the qualification of a firm as a family business firm.

- 1) At least 33% of shares are held by a family
- 2) The major shareholding in a company belongs to a single family

1.1.2 FOUNDER FIRMS & DESCENDANT FIRMS

According to Andres (2011), a family company is referred to as a founder firm if it is organized by a founder CEO. If the founder is deceased and the firm is controlled by one of the founder's descendants, then it is labeled as a descendant firm. In data set, the study labeled the responses as "0" or "1" where "0" represents the non-family firm while "1" represents the firm being either founder or descendant.

1.2 SIGNIFICANCE OF THE STUDY

The study explored the performance & value of family business & non-family business; as the listed family-owned businesses are considered the backbone and strength of Pakistan's economy. But in Pakistan, scholars have not attained much attention about the value of the family business and non-family owned businesses. This study helps the existing shareholders and new investors to understand the performance of family businesses and non-family businesses and how ownership structure impact on firm value and performance. They will be capable of knowing the difference concerning family & non-family firm enactment. It will be supportive of management and investors for future decision making. This research objective is to inspect the sway of ownership structure on firm financial outputs and inspect which ownership structure gives superior performance, family companies, or non-family organizations.

2. LITERATURE REVIEW

Allen and Panian (1982) stated that family-owned businesses are those businesses in which the decedent's group members are having at least 5 % of voting rights. According to the other definitions if chief executive officers (CEO), having a full controlling authority is also called the family firm. Ang et al. (2000) defined family-owned firms according to the ownership structure when one family having control of more than 50% shares is a family firm. Barth et al. (2005) defined that when one

person in a company or one family in a company having at least 33% of shares is called a family firm. According to Bennedsen et al., (2007) when a chief executive officer (CEO) of the corporation having a blood relation of outgoing CEO or marriage with outgoing CEO.

The first voice on firm performance and ownership structure was rose by Berle & Means (1991) showing the opposite association between firm performance and shareholdings. Demsetz and Lehn (1985) found the value of the firm systematically totally different from corporate ownership structure and no significant relationship between accounting profit and ownership structure and no evidence was available to control separation and ownership. In contrast, Hill and Snell (1989) developed a model to examine the outcome of the ownership structure of the firm on productivity and found the firms' ownership structure affects the stance towards diversification strategy and the firm's investment, moreover enhances the firm's productivity.

Perrini et al., (2008) conducted research on the Italian market any covered the year from 2000 to 2003, and found that non-family owned firms give superior performance as compared to family-owned firms. They also found that better and superior performance of the firms encourages and leads the outside investors. Barzegar and Babu (2008) studied using 50 companies' data listed in Tehran Stock Exchange for 2001-2003 and found that concentrated ownership firms give an inferior performance compared to diffused ownership firms. Families may be unhelpful to firm performance, analyses of US public companies indicate that family firms outperform (Miller et al., 2007).

Ali et al. (2015) inspected the association among possession structure and the output of business on 355 PSX listed firms using Tobin's Q Ratio for the market grounded outcome, Return on Assets (ROA) for accounting based output, leverage as moderating variable; the other control variables were firm size and growth of the firm. The result concluded that non-family firms performed better.

Al-Najjar and Kilincarslan (2016) concluded the consequences of ownership assembly or structure on dividend policy and took an analysis of listed firms in Turkey Stock Exchange in the non-financial and non-utility sectors and the result shown that state ownership and foreign ownership connected with fewer chances of disbursing dividends and the ownership or possession variables like minority shareholders. But the other all ownership variables having a negative and significant relationship with the dividend yield and dividend payout ratio.

PWC (2012) found that family businesses are more productive due to different facts such as in family firms the interest of the owner in decision making increases because his/her own money is invested in the business. The same case is observed by Zattoni et al. (2015) evaluating the impact of family firms on financial performance and found that family involvement has a positive impact on firm performance. While Kachaner et al. (2012) found family firms are not productive as compared to non-family firms because the focus of the family firms is resilience instead of performance.

There are many concepts of good and bad family business. Dyer (2006) presents family-specific factors greatly affecting the company's low efficiency when the headquarters concept is central. If service providers (managers) and large (owners) have different goals, the broker's expenses are serious, although this is not an exclusive right to see affiliated subsidiaries. Jensen and Meckling (1976) discuss family relationships; Companies are expected to lower the organization's costs because entrepreneurs and managers in family businesses are often the same. Organizational costs are the cost of tracking service providers according to fundamentals and will increase with the company's development. As the need to track a carrier is no problem when the carrier and administrator are the

same people, the organization's costs are not a problem for the basic executives of leading companies. However, members of family members controlled by an administrator may be the cause of higher or equal organizational costs than non-family businesses because the close relative interests depend on role management (Schulze et al., 2001).

Moreover, through literature review, it is quite clear that possession structure is the major factor in family firms affecting firm performance (Barontini & Caprio, 2006; Lin & Chang, 2010; Miralles-Marcelo et al., 2014; Pindado & De La Torre, 2009).

Moreover, agency theory has been widely used by authors studying the influence of family firms on firm value and output. This is logical because, in family firms, the clash of interest between proprietors and employees affects the performance of the firm. Furthermore, the rationale for controlling variables have been discussed after the conceptual framework given in Figure 1.

3. RESEARCH METHODOLOGY

3.1 POPULATION

Research is conducted by using 400 firms listed at Pakistan Stock Exchange (PSX) under the non-financial sector as population.

3.2 SAMPLING FRAMEWORK

In literature, different types of sampling techniques are found and we can normally divide them into two major categories known as a probability vs. non-probability sampling (Sekaran & Bougie, 2016). Keeping in view the research objectives and aim of the study, a simple random sampling technique was used. Jonker and Pennink (2010) stated that in simple random sampling technique, the overall population has the probability of being selected as a sample unit. The data has taken from the financial statements of the firms listed in the PSX. In PSX, there are almost 400 firms listed in the non-financial sector. This study selected the sample size of 120 firms that is 30% of the overall population listed in the PSX of Pakistan and select the samples by using simple random sampling technique. This study comprises panel data of 6 years from 2010 to 2015. Furthermore, Hair (2015) stated that the size of the sample must be equivalent to ten spells of the digit of variables at least. In this way, this research study should have sample size equal of 80 observations.

3.3 STUDY VARIABLES

3.3.1 DEPENDENT VARIABLES

In this study, the dependent variables are Tobin's Q, Return on Assets (ROA), and Return on Equity (ROE).

$\text{Tobin's Q} = V/TA$ $\text{ROA} = \text{Net Income}/\text{Total Assets}$ $\text{ROE} = \text{Net Income}/\text{Total Equity}$

3.3.2 INDEPENDENT VARIABLES

Following independent variables are used in this study, i.e. Firm's age, Sales growth, Firm's size, Leverage, and Dividend Payout Ratio
Family Firms (Founder Firms & Descendant Firms)

Age (AG) = Total Number of Years after Incorporation to date
 Sales Growth = Sales Growth Represents the percentage change in sales
 Size is measured as LOTA = Log of Total Assets
 Leverage is measured as LVRG = Total debts/ Total assets
 Interest Coverage Ratio = Net income/Interest expense

The secondary data was first extracted from the financial statements of selected firms. Moreover, the data was organized in excel spreadsheets then statistical analysis was applied to the organized secondary data in Eview and Stata.

3.4 CONCEPTUAL FRAMEWORK

Figure 1 gives a conceptual framework for dependent and independent variables.

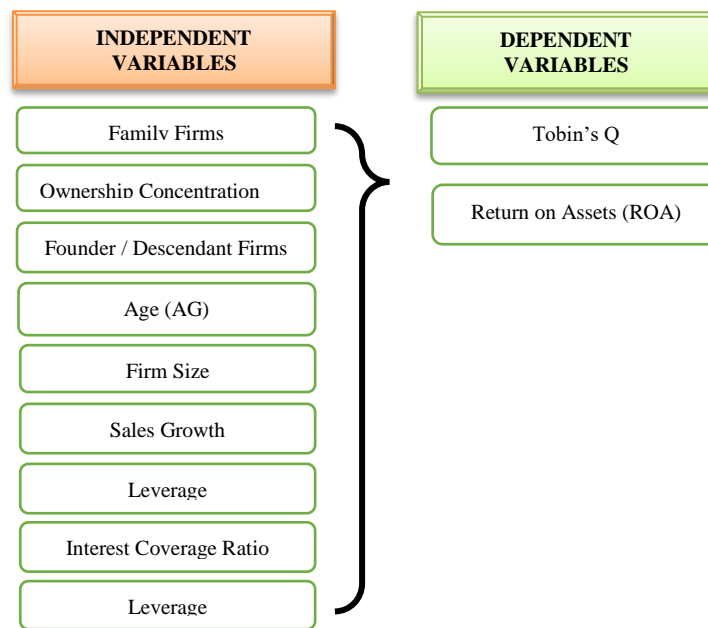


Figure 1: Conceptual Framework

3.5 ECONOMETRIC MODELS

There are six models involved in this study.

$$TQ_{it} = \beta_0 + \beta_1 (FFIRM)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (1).$$

$$TQ_{it} = \beta_0 + \beta_1 (OCON)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (2).$$

$$TQ_{it} = \beta_0 + \beta_1 (F-DFIRM)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (3).$$

$$ROA_{it} = \beta_0 + \beta_1 (FFIRM)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (4).$$

$$ROA_{it} = \beta_0 + \beta_1 (OCON)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (5).$$

$$ROA_{it} = \beta_0 + \beta_1 (F-DFIRM)_{it} + \beta_2 (AGE)_{it} + \beta_3 (SIZE)_{it} + \beta_4 (GWT)_{it} + \beta_5 (LEV)_{it} + \beta_6 (ICR)_{it} + e_{it} \quad (6).$$

Notes: TQ=Tobin's Q; ROA = Return on Assets; FFIRM=Family Firms; OCON=Ownership Concentration; F-DFIRMS=Founder or Descendant Firms; AGE = Firms Age; Size = Firms Size; GWT=Firms Growth; LEV=Leverage; ICR=Interest Coverage Ratio; i=cross sectional firm t=time; e = error term

4. DATA ANALYSIS AND RESULTS DISCUSSION

4.1 DESCRIPTIVE ANALYSIS

The results of descriptive analysis are presented in Table 1.

Table 1: Descriptive Analysis (N = 720).

	Mean	S.D	Range	Min	Max
Family Firm	0.53	0.50	1	0	1
Ownership Concentration	34.50	28.35	88.22	0	88.22
Founder / Decedent Firm	0.67	0.47	1	0	1
Age	31.03	14.94	68	1	69
Size	6.42	0.76	4.09	4.25	8.34
Growth	0.15	0.44	4.44	-1.00	3.44
Leverage	2.14	6.72	170.54	-18.90	151.64
Interest Coverage Ratio	9.23	53.92	922.15	-273.44	648.71
ROA	5.38	14.66	119.21	-51.62	67.59
Tobin's Q	5.02	9.68	97.05	0.19	97.24

Based on descriptive analysis, it is found that the mode value of Family Firms is 1, which represents that the majority of the firms in the sample fall in the category of family businesses. Moreover, this table also presents that mean value of family firms is 0.53, which is also greater than 0.5, which verifies the above finding. It is also found that all firms in the sample have a standard deviation of .5 with a minimum value of 0 and maximum value of 1 because the study labeled only two responses for “Family Firms” variable, i.e. 0=Non-Family Firms; 1=Family Firms. It also means that the behavior of family firms would be evaluated than non-family businesses in this study due to the larger number of family companies in the model.

According to Table 1, it is found that the value of average or mean of ownership concentration is 34.50% with SD 28.35%. This shows that family owners on average have 34.5% shares in non-financial organizations listed at PSX, Pakistan. As it was discussed in the definitions section that a firm would be classified as a family firm if 33% or more than 33% shares are owned by family members so, mean value of 34.5% show that majority of firms in the sample fall in the category of family firms as found by previous variable's finding. Moreover, the minimum family ownership concentration was found to be 0% while maximum ownership concentration was found to be 88.22%. Minimum value as 0 shows that the sample also contains such firms that have no ownerships by family members.

Based on descriptive analysis; it is also found that the mode value of Founder/Decedent firm is 1 which represents that majority of the firms in sample fall in the category of decedent firms as compared to founder firms. Moreover, it is also found that the mean value of the founder/decendent firm is 0.67, which is also greater than 0.5, which verifies the above finding, i.e. descendant firms in the sample are higher than Non-Family Firms.

The mean value of ROA is 5.3, with a minimum value of -51.62 & a maximum value of 67.59. The analysis shows that sample companies have experienced heavy losses as well due to different reasons which are not part of the discussion. The negative values show this trend. Moreover, the standard deviation for ROA is 14.66, which is not very high. A similar type of trend is observed in ROE as well, whereas the value of mean is 12.96 with a maximum value of 601.26 and a minimum value of -823.35. In the case of Tobin's Q, it is found that the mean value is 5.02 with a standard

deviation of 9.68 having minimum value = 0.19 & maximum value = 97.24. It is also found that only Tobin's Q did not have any negative value in the data set.

4.2 CORRELATION ANALYSIS

The results of the correlation analysis are presented in Table 2.

Table 2: Correlation analysis results.

Variable	FF	OC	DFD	Age	Size	Growt	Lev	ICR	ROA	TQ
Family Firm	1.00									
Own. Concentration	0.87	1.00								
Founder/Des Firm	0.11	0.11	1.00							
Age	-0.09	-0.13	0.57	1.00						
Size	-0.25	-0.22	-0.22	-0.04	1.00					
Growth	0.04	0.01	-0.15	-0.11	0.11	1.00				
Leverage	-0.01	-0.02	0.01	-0.01	-0.04	-0.01	1.00			
Int. Coverage Ratio	-0.16	-0.15	0.02	0.12	0.01	0.00	0.00	1.00		
ROA	-0.11	-0.16	-0.03	0.17	0.15	0.23	-0.06	0.30	1.00	
Tobin's Q	-0.09	-0.11	0.07	0.26	-0.12	-0.01	-0.04	0.39	0.39	1.00

Based on correlation analysis, found that family businesses or firms and ROA are negatively correlated, i.e., 0.1143. This shows that when the value of family firms will increase then the value of ROA will decrease and vice versa. It means the increment in the value of Family Firms will decrease the profitability of the firm. So, the higher the value of family firms, the lesser will be its profitability. Family Firms & Tobin's Q (-0.09) also indicate a negative correlation. This correlation analysis indicates the relation of family firms is negative with all of the financial performance measures, whether it is ROA or Tobin's Q. The ownership concentration and ROA are also negatively correlated, i.e., 0.1627. This shows that when the value of ownership concentration will increase then the value of ROA will decrease and vice versa. It means the increment in the value of ownership concentration will decrease the profitability of the firm. So, more the value of ownership concentration less will be its profitability. The relationship is also negatively related, i.e., ownership concentration & Tobin's Q (-0.1117). Firm Typ, i.e., Founder/Descendent, and ROA, are negatively correlated, i.e., 0.0289. This shows that when the value of Founder/Descendent firm will increase then the value of ROA will decrease and vice versa. The relationship between Founder/Descendent firm & Tobin's Q is positive (0.0741). It shows that the increase in the value of Founder/Descendent firm will decrease ROA while it will increase the Tobin's Q of the business. So, the correlation of Founder/Descendent firm is not similar on all performance measures.

4.3 PANEL DATA ANALYSIS

Model 1 (Equation (1)) The outcomes of the first model are explained in Table 3. In this model, "Tobin's Q" has been taken as a dependent variable. The outcome of "Tobin's Q" on the firm's financial performance has measured with the help of a multiple regression model. Hausman test is used to check the feasibility of either the random effect model or fixed-effect model. The chi-square value for this model is 53.777 with 5 as the degree of freedom. Moreover, the p-value (0.000) confirms the usage of the fixed-effect model instead of the random-effects model.

In Table 3, it is found that the coefficient value of FFIRM is -2.561, which clearly shows that FFIRM gives a negative impact on Tobin's Q. Furthermore, it is also found the results are insignificant for this model because the p-value (0.074) in this model is greater than α (0.05). These findings also suggest that Family Firms will not affect the value of companies in Pakistan. It is also

found that the coefficient value of AGE is 0.153, which clearly shows that AGE has a positive impact on Tobin's Q. Furthermore, it is also found that the results are strongly significant for this model because the p-value (0.001) in this model is less than α (0.05). These findings also suggest that the age of firms will variate the value of the companies in a positive manner, which means higher the age of the firm, higher is Tobin's Q of the firm. It is also found that the coefficient assessment value of SIZE is -4.654, which clearly shows that firm size negatively affects Tobin's Q. It is also found that the t-statistic for this variable is strongly significant because the p-value (0.000) in this case is less than α (0.05). This finding suggests that firm size would highly affect the value of the companies. It is also found that the coefficient value of GWT is 0.457, which clearly shows that growth positively impacts Tobin's Q.

Furthermore, the results are insignificant for this model because the p-value (0.353) in this model is greater than α (0.05). These findings also suggest that the growth rate will not affect the value of companies. It is also found that the coefficient value of LEV is -0.013, which clearly shows that leverage is negatively correlated with Tobin's Q. But it is also found that the t-statistic for this variable is not significant because the p-value (0.695) in this case is not less than α (0.05). This finding suggests that the leverage of the firm would not affect the value of the companies.

Table 3: Regression Results

Independent Variables	Tobin's Q (Model 1)	Tobin's Q (Model 2)	Tobin's Q (Model 3)	ROA (Model 4)	ROA (Model 5)	ROA (Model 6)
F_Firm	-2.561 (-1.789) 0.074			-2.362 (-2.273) 0.023		
Own. Cont.		-0.045 (-1.797) 0.073			-0.061 (-3.370) 0.001	
F_D_Firms			-4.323 (-2.426) 0.016			-4.394 (-3.207) 0.001
Age	0.153 (3.509) 0.001	0.151 (3.447) 0.001	0.227 (4.404) 0.000	0.128 (3.697) 0.0002	0.125 (3.623) 0.0003	0.213 (4.854) 0.000
Size	-4.654 (-6.156) 0.000	-4.616 (-6.139) 0.000	-4.781 (-6.306) 0.000	0.192 (0.929) 0.353	0.340 (1.594) 0.1115	0.053 (-0.276) 0.783
Growth	0.4570 (0.930) 0.3525	0.446 (0.907) 0.365	0.421 (0.858) 0.391	7.958 (6.535) 0.000	7.855 (6.488) 0.000	7.509 (6.177) 0.000
Interest Coverage Ratio	0.0379 (8.484) 0.000	0.03798 (8.496) 0.000	0.0381 (8.523) 0.000	0.0742 (7.380) 0.000	0.0731 (7.318) 0.000	0.076 (7.6443) 0.000
Leverage	-0.01258 (-0.393) 0.695	-0.0127 (-0.397) 0.000	-0.011 (-0.332) 0.740	-0.138 (-1.746) 0.081	-0.138 (-1.759) 0.0790	-0.130 (-1.656) 0.098
R ²	0.161	0.160	0.164	0.178	0.186	0.185
Adj. R ²	0.153	0.153	0.156	0.171	0.179	0.178
F Statistics	19.857	19.862	20.340	18.586	18.662	19.259
Prob.(F-stats)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Note: TQ=Tobin's Q; ROA = Return on Assets; FFIRM=Family Firms; OCON=Ownership Concentration; F-DFIRMS=Founder or Descendant Firms; AGE = Firms Age; Size = Firms Size; GWT=Firms Growth; LEV=Leverage; ICR=Interest Coverage Ratio; R²=R-Squared; Adj. R² = Adjusted R-Squared.

It is also found that the coefficient value of ICR is 0.038, which clearly shows that growth is

positively impacting Tobin's Q.

Furthermore, the results are strongly significant for this model as the p-value (<0.001) in this model is less than α (0.05). These findings also suggest that the interest coverage ratio of the business disturbs the value of companies in a positive manner, which means higher the interest coverage ratio of the firm, higher is the value of the firm. So, it can be said that in the first regression model, all variables are significant except FFIRM, GWT, and LEV. The contribution of this regression model shows the values of R-Square and Adjusted R-Square, which are 0.161 & 0.152, respectively. It means all significant variables affect the Tobin's Q with 16.05% if we consider R-Square value.

Model 2 (Equation (2)): The outcomes of this model, Tobin's Q has been taken as a dependent variable. The effect of Tobin's Q on the financial performance of the listed firm's has been measured with the support of the multiple regression model. Hausman test is used to check the feasibility of either random-effects model or fixed-effects model. The chi-square value for this model is 53.827 with 5 as the degree of freedom. Moreover, the p-value (<0.001) confirms the usage of the fixed-effect model instead random effect model.

According to the table, it is found that the coefficient value of OCON is -0.0452, which clearly shows that OCON is negatively correlated with Tobin's Q. Furthermore, it also found that results are insignificant for this model because the p-value (0.073) in this model is greater than α (0.05). These findings also suggest that Ownership Concentration will not affect the value of companies in Pakistan. To check the contribution of this regression model, the researcher has also calculated the values of R-Square and Adjusted R-Square, which are 0.161 & 0.152, respectively. It means all significant variables affect the Tobin's Q with 16.06% if we consider R-Square value.

Model 3 (Equation (3)): The outcomes of this model, Tobin's Q has been taken as a dependent variable. The consequence of Tobin's Q on the financial performance of the listed firm's has been measured with the help of a multiple regression model. Hausman test is used to check the feasibility of either random-effects model or fixed-effects model. The chi-square value for this model is 52.787 with 5 as the degree of freedom. Moreover, the p-value (<0.001) confirms the usage of the fixed-effect model instead random effect model.

According to Table 3, it is found that the coefficient value of F_DFIRM is -4.323, which clearly shows that F_DFIRM is negatively correlated with Tobin's Q. Furthermore, it is also found that the results are insignificant for this model because the p-value (0.0155) in this model is lower than α (0.05). These findings suggest that Family and Descendent will affect the value of companies in Pakistan. To check the contribution of this regression model, the researcher has also calculated the values of R-Square and Adjusted R-Square, which are 0.164 & 0.156, respectively. It means all significant variables affect the Tobin's Q with 16.38% if we consider R-Square value.

Model 4 (Equation (4)): From the outcomes, ROA has been taken as the dependent variable. The effect of ROA on the financial performance of the listed firms has been measured with the help of a multiple regression model. Hausman test is used to check the feasibility of either random-effects model or fixed-effects model. The chi-square value for this model is 23.602 with 5 as the degree of freedom. Moreover, the p-value (0.0003) confirms the usage of the fixed-effect model instead random effect model.

According to Table 3, it is found that the coefficient value of FFIRM is -2.362, which clearly shows that FFIRM has a negative impact on ROA. Furthermore, it is also found that the results are

significant for this model because the p-value (0.023) in this model is less than α (0.05). These findings also suggest that the ownership structure of firms will affect the financial productivity of corporations in Pakistan. This model also found that the value of the coefficient of the AGE is 0.128655 which clearly shows that AGE is positively correlated with ROA. Furthermore, it is also found that the results are strongly significant for this model because the p-value (0.0002) in this model is less than α (0.05). These findings also suggest that the age of firms will affect the financial performance of companies in a positive manner, which means greater the age of the firm; greater is the ROA of the firm. It is also found that the coefficient value of SIZE is 0.192, which clearly shows that the size of the business is positively correlated with ROA. But also found that the t-statistic for this variable is not significant because the p-value (0.353) in this situation is not less than α (0.05). This finding suggests that firm size would not affect the financial performance of the corporations in the expressions of ROA. The outcomes also found that the coefficient value of GWT is 7.958371, which clearly shows that growth is highly and positively correlated with ROA. Furthermore, it is also found that the results are strongly significant for this model because the p-value (0.000) in this model is less than α (0.05). These findings also suggest that the growth rate will affect the financial performance of companies in a positive manner, which means higher the growth rate of the firm, higher is the ROA of the firm. It is also found that the coefficient value of LEV is -0.138, which clearly shows that firm size is negatively correlated with ROA. But it is also found that the t-statistic for this variable is not significant because the p-value (0.081) in this case is not less than α (0.05). This finding suggests that the leverage of the firm would not affect the financial performance of the companies in terms of ROA. It is also found that the coefficient value of ICR is 0.074, which clearly shows that growth is positively correlated with ROA. Furthermore, it is also found that the results are strongly significant for this model because the p-value (<0.001) in this model is less than α (0.05). These findings also suggest that interest coverage ratio of the firm affects the financial performance of companies in a positive manner, which means higher the interest coverage ratio of the business, higher is the ROA of the firm. So, it can be said that in the fourth regression model, all variables are significant except SIZE and LEV. To check the contribution of this regression model, the researcher has also calculated the values of R-Square and Adjusted R-Square, which are 0.178 & 0.171, respectively. It means all significant variables affect the value of ROA with 17.79% if we consider R-Square value.

Model 5 (Equation (5)): ROA has been taken as the dependent variable. The influence of “ROA” on the financial performance of the listed firms has been measured with the help of a multiple regression model. Hausman test is used to check the feasibility of either random-effects model or fixed-effects model. The value of chi-square for this model is 23.202 with 5 as the degree of freedom. Moreover, the p-value (0.0003) confirms the usage of the fixed-effect model instead random effect model.

The coefficient value of OCON is -0.061, which clearly shows that OCON is negatively correlated with ROA. Furthermore, it is also found that the results are significant for this model because the p-value (0.001) in this model is lower than α (0.05). These findings also suggest that ownership concentration of firms will affect the financial performance of corporations in Pakistan. To check the contribution of this regression model, the researcher has also calculated the values of R-Square and Adjusted R-Square, which are 0.186 & 0.179, respectively. It means all significant variables affect the value of ROA with 18.59% if we consider R-Square value.

Model 6 (Equation (6)): The outcomes of this model, ROA has been taken as the dependent variable. The effect of ROA value has been measured with the help of a multiple regression model. Hausman test is used to check the feasibility of either random-effects model or fixed-effects model. The value of chi-square for this model is 22.746 with 5 as the degree of freedom. Moreover, the p-value (0.0004) confirms the usage of the fixed-effect model instead random effect model.

From Table 3, the coefficient value of F_DFIRM is -4.394, which clearly shows that F_DFIRM is negatively correlated with ROA. Furthermore, it is also found that the results are significant for this model because the p-value (0.001) in this model is lower than α (0.05). These findings also suggest that firm type, i.e. founder/descendent firm will affect the financial productivity or performance of corporations in Pakistan. To check the contribution of this regression, model, the researcher has also calculated the values of R-Square and Adjusted R-Square, which are 0.185 & 0.178, respectively. It means all significant variables affect the value of ROA with 18.46% if we consider R-Square value.

5. CONCLUSION

The study extracted 120 firms from a population of 400 firms listed on PSX through a simple random sampling method. The major conclusion drawn from this study is about the firm performance of family firms as compared to non-family firms. Based on results obtained from this study, it is concluded that non-family firm's execution is better than family firms in Pakistan. This study evaluated the performance of 120 firms (Family = 55, Non-Family = 65) over a period of 6 years (2010-2013). Two proxy variables, i.e. Tobin's Q and ROA, are used to find the concluding remarks. It is found that Tobin's Q and ROA significantly influenced due to study variables. This research has been successful in finding the answer to all research questions. In answer to the 1st research question, it is concluded that non-family businesses perform superior to family firms. The same answer goes true for the second research question as well. In response to the third question, it is also found that founder firms are performing better in Pakistan than descendant firms. In response to the last research question, it is concluded that the firm's type, age, and size are the imperative elements of firm performance which are normally measured with the help of ROA and Tobin's Q.

Non-family controlled firms perform better in Pakistan's market. One reason behind that professional managers run the firms in a better way as compared to the non-professional manager in family firms. Professional managers are titled for a very tough time for any firm. But in good time families enjoyed the ownership and having full controlled on the firm's management. Ownership concentration's influence is very much effect on firm performance. The study shows that firms having low ownership concentration of one family, the firm performs better and if the firms are having high ownership concentration of a single-family that time the firm's performance becomes low. The rise of ownership concentration of a single-family in the firm means a negative impact on firm performance.

6. AVAILABILITY OF DATA AND MATERIAL

Data can be made available by contacting the corresponding author.

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