PROBLEMS
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DOES OWNERSHIP MATTER? A STUDY OF FAMILY AND NON FAMILY FIRMS IN PAKISTAN

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Abstract

Researchers have been trying to find out whether ownership makes any difference to a firm's performance. The purpose of this article is to analyse whether family or non-family firms perform better. It focuses on comparison only and does not indulge in finding out reasons of the results. A sample of 100 randomly selected firms from Karachi Stock Exchange (KSE), Pakistan were examined for six years (2004-2009). Ownership variable is taken as a dummy variable besides two other independent variables: age and size. Return on Asset (ROA), Return on Equity (ROE) and Tobin's Q are used to measure firm performance. Fixed Effect Model along with statistical analysis were used to examine the effects of the variables.
The statistical analysis showed that non-family firms had greater mean values for performance variables. Correlation matrix showed that the size of a firm will be small in case a family is running it. The correlation coefficient between family ownership and age is also negative. Family ownership had a negative β in every regression. Log of asset and log of age had positive βs in every model.
The results thus obtained from empirical data of firms listed on KSE clearly reflect that non-family firms outperform family firms with every performance variable included in the study. This can serve as a guideline in determinig ownership structure for firms in Pakistan.
Key words: *family and non family firms, Karachi Stock Exchange (KSE), ownership structure, performance of firms.*

Introduction

It has been noted that the most common type of a firm with concentrated ownership is the one that is run by an individual or a family (Favero, Giglio, Honorati and Panunzi (2006)) where the ultimate ownership rests with the individual or a family. Previously numerous researches were done with the widely held firms (i.e. firms that do not have an identifiable "single" owner and are jointly run by all shareholders who appoint directors to run the firm) in the spotlight. The trend started with Berle and Means (1932). However, since the early 1980s, the spotlight has moved on to firms with concentrated ownership. The recognition of the fact that most developed countries (US, UK and Western Europe) have overwhelming percentage of firms with concentrated ownership, has greatly contributed to the increase in number of researches on firms with concentrated ownership.

Most of the firms around the world have a dominant shareholder who runs the firm (Sraer & Thesmar (2006)). The dominant shareholder becomes the face of the firm. The firm, its successes and failures, its highs and low, become associated with that dominant shareholder. That dominant entity can be an individual, Government, a foreign investor or a family.

A firm run by a family is the one where the family is the dominant shareholder who owns and/or controls the firm. The family may own the firm because one of the family members

founded the firm, or the family took it over from someone else (as a result of an acquisition or merger). Every type of firm has certain traits and characteristics. One of the traits that are normally associated with family firms is that they ruin the firm value (Holderness and Sheehan (1988)). This is one view; there are others who think otherwise like Anderson and Reeb (2003) who believe that presence of family in the firm leads to an improved performance.

Research has shown that firms with concentrated ownership are not only prevalent in US, UK, Western Europe and other developed economies but are also very common in developing economies like Thailand (Wiwattanakantang(2001)) and Pakistan (Ghani and Ashraf (2005)). Pakistan, as stated, is a developing economy and it has also experienced the surge in firms with concentrated ownership. The term that is predominantly used to describe the family controlled firms is "Business Groups" as described by Ghani and Ashraf (2005). Numerous reasons have been put forward to justify the existence of firms with in groups. One reason that is put forward by them is that groups are good at eliminating the threat posed by imperfect market information and that they stay united and adopt a portfolio approach that allows the constituent "sister" firms to benefit under the "Group Umbrella".

Society can be big factor in countries like Thailand (Wiwattanakantang, 2001) and Pakistan (Ghani and Ashraf, 2005) where family marriages along with kinship, community, race and religion play an important role in shaping the organizational structure of a firm. Wiwattanakantang (2001) has shown that Thai firms form linkages keeping in view a number of factors prominent amongst which is inter-family marriages. Pakistani society is not much different because race, religion and political affiliations play an important (sometimes decisive) role in determining a firm's outlook and hierarchy.

As mentioned earlier family firms in Pakistan operate as "Groups". These Groups act as a single entity that has a number of constituent firms which the group has acquired either through merger, acquisition, cross-shareholdings and interlocked directorships (Ghani & Ashraf (2005) and Naqvi & Ikram (2004)).

Problem of Research

The study intends to undertake a comparison between family and non-family firms. The study aims to distinguish family run firms from non-family firms by comparing their performances over a period of time (i.e. 2004-2009). It investigates the effects that a controlling shareholder (family or non-family) can have on firm value.

The most fundamental and vital aim of the research is to determine whether type of ownership has any effect on the firm value. The term "ownership type", in this study, refers to only family and non-family ownership. The main purpose of the study is to draw a line between family and non-family firms by comparing and contrasting their performances.

There are several factors that the study intends to correlate with performance of a firm. The effect of each of those factors on performance of family and non-family firms is analyzed. It is pertinent to mention that size of a firm is a factor that can have an impact on the firm's overall performance. Another aspect that the study examines is whether age has any thing to do with firm performance.

Research Focus

Research on effect of family ownership and control on firm performance has garnered great interest around the globe. The curiosity around the relationship between family control and ownership and firm performance has attracted a number of researchers to try their hands at this topic. The first question that comes into consideration is whether family firms are any different, in terms of financial performance than non-family firms. The question is important

PROBLEMS
OF MANAGEMENT
IN THE 21st CENTURY
Volume 2, 2011

to answer because if there is no difference then the study becomes useless. There is ample evidence to suggest that there are striking differences between the two types of firms i.e. family and non-family controlled firms.

Previous researches on the topic have been mixed. There are both positive and negative results relating to the family effect on firm performance.

Wiwattanakantang (2001) came up with a positive analysis of family firms while doing research on non-financial firms listed on Thai Stock Exchange. A similar picture was painted of Norwegian family firms by Mishra, Randhoy & Jensssen (2001). Barontini and Caprio (2006) have found positive relation between family control and firm performance. A research on family firms from S&P 500 by Anderson & Reeb (2003) shows that family control doesn't affect minority shareholders in a negative way.

A research conducted in France by Sraer & Thesmar (2006) reports that family firms outperform other type of firms that were part of the research. A similar research conducted by Favero, Giglio, Honorati & Panunzi (2006) for the Italian family firms shows that family firms outweigh other firms with their performance.

On the contrary, there are research papers that highlight the negative relationship between family control and firm performance. For example, Perez-Gonzalez (1999) came up with a negative relationship between family ownership and firm performance while conducting a study in US. Holderness & Sheehan (1988) and Faccio & Lang (2002) also found results that depict an injurious relationship between family ownership and firm performance. Sciascia & Mazzola (2008) have also found a negative relationship between family involvement in management and firm performance.

There are still others like Amit & Villalonga (2006) who propose conditional positive relationship between the two variables i.e. family ownership and firm performance. According to them, family control will be beneficial if the founder of the firm is serving as Chief Executive Officer (CEO) or if he is the Chairman with an outside CEO.

There is another class of researchers who initially found positive results for family firms which then takes a U-turn and becomes negative. Fama & Jensen (1983), Morck et al (2000) and Schleifer & Vishny (1997) report a similar pattern.

Studies regarding family ownership and control and its subsequent effect on firm performance has been a touch different in Pakistan. The researchers in Pakistan use the term "family group" to classify firms controlled by a family. For example, Ghani & Ashraf (2005) and Naqvi & Ikram (2004) have used the term Family Business Groups for family-run businesses. Naqvi & Ikram (2004) suggest that large family run businesses are more profitable as compared to small family businesses or non-group firms. Ghani & Ashraf (2005) have come up with both positive& negative results with ROA (profitability variable) showing a positive sign while Tobin's q showing a negative relation with family control.

In the wake of above discussion and divergences amongst the various researches conducted on the topic, it was felt necessary to see the relationship between family control and ownership and firm performance for firms listed on KSE.

Methodology of Research

General Background of Research

In the light of the literature discussed in the previous section, the following hypotheses have been made that the research attempts to test:

H_{01}: *Family firms perform better than non-family firms*

H_{02}: *Size of a firm i.e. its assets, has a positive affect on its performance*

H_{03}: Age of a firm has positive affect on its performance

Different researchers have defined family control and/or general control (necessary for ownership) quite differently.

Wiwattankantang (2001) quotes the Thai Stock Exchange that owner is an entity that holds more than 25% of shares directly or indirectly. Ownership, in that case, is based on voting rights and does not take into account the cash flow rights.

Favero, Giglio, Honorati & Panunzi (2006) state that 20% of voting shares are enough to ensure control, therefore any firm where a family holds 20% or more voting shares will be considered a ”family firm”.

Anderson & Reeb (2003), for the identification of family firms, used the fractional equity ownership of the founding family and/or the presence of family members on the board of directors to identify family firms. They resolved the descendent issue by examining corporate histories for each firm in their sample.

According to Amit & Villalonga (2006) a firm is a family firm where founder or any member of the family, by blood or marriage, is a director or the owner of at least 5% of the firm’s equity, individually or as a group. Javid & Iqbal (2008) have also followed the same definition of family firm as proposed by Amit & Villalonga (2006). The difference here is that Favero, Giglio, Honorati & Panunzi (2006) used a threshold of 20% while Amit and Villalonga (2006) have reduced that threshold to 5%.

Sraer & Thesmar’s (2006) definition of family firm is mostly based on Amit & Villalonga (2006) and Anderson & Reeb (2003). A firm is a family firm, as per Sraer & Thesmar (2006), when the founder or a family member of the founder’s family holds more than 20% of the voting rights.

Taking the above literature into consideration, the study has crafted a criterion to pronounce a firm as family firm if members of a family are present on the board of directors and for an entity (family, individual or group) to be called a block holder, it should own 20% or more in the firm.

Sample of Research

The sample is derived from KSE that has ample number of firms with concentrated ownership and are run by dominant shareholders. Presence of firms with concentrated ownership can be delineated by considering the fact that majority of firms (belonging to manufacturing sectors) listed on KSE have a dominant shareholder who can either be a Family (family owned firm), Government (State owned firm) or a Foreign investor (foreign company holding majority of shares in a local firm). In order to keep things simple, the sample is selected such that only one firm from each “Group of Companies” is included.

The study is limited to non-financial firms listed on KSE. The sample consists of family and non-family controlled firms from Cement, Chemicals, Engineering, Textile, Sugar and other manufacturing sectors. The study has excluded firms from banking, insurance and mutual fund sector. The sample is selected keeping in view what previous researchers’ sampling. Wiwattankantang (2001), Sraer and Thesmar (2006), Favero, Giglio, Honorati & Panunzi (2006), Mishra, Randhoy & Jensssen (2001), Ghani and Ashraf (2005) and Anderson and Reeb (2003) have all excluded financial firms.

The sample consists of a total of 100 firms: 50 family owned firms and 50 non-family firms. The firms were selected randomly. Six year data (2004-2009) was collected for the firms.

PROBLEMS
OF MANAGEMENT
IN THE 21st CENTURY
Volume 2, 2011

Data Sources

A data source was needed that could give information regarding the firm's Board of Directors (BoD), its assets, liabilities, profit, loss, ordinary share capital and market value of share. All information (except market value of share) was collected from annual reports of the firms. Information about firms that did not have Annual Reports were collected form a detailed "Balance Sheet Analysis" of State Bank of Pakistan from where information about balance sheet, profit and loss accounts, and general company information regarding BoD for 2004-2009 was obtained. Market price of share for all firms (of 30th June of each year) was obtained from business recorder.

Instrument and Procedures

It was a research requirement that both accounting measure of performance as well as market measure of performance be taken into account. Following previous researches done on this topic (as explained in literature review) the study employs two accounting measures and one market performance measure. To measure the firm profitability ROA and ROE are used while Tobin's q was taken as a market performance measure. The research followed Anderson and Reeb's (2003) definition of ROA and ROE. The definition of ROE has also been supported and used by Favero, Giglio, Honorati & Panunzi (2006). In order to use Tobin's q, the study complies with Wiwattanakantang's (2001) definition of Tobin's q. The aforementioned variables are the most used variables in studies where performance of firms is measured. The objective to employ all three measures of performance was, firstly, to follow previous methodologies and, secondly, to adopt a measuring mechanism that leaves no loopholes and covers every aspect of a firm's performance. There is a need to analyze the effects of the independent variables on all three performance measures separately. The idea is to test whether the results of performance variables differ or not.

In order to see whether a firm's performance is affected by elements other than ownership by family that are integrally related to the firm's nature and constitute a characteristic of the firm, two control variables namely firm age and firm size were picked.

Age is a factor that was quite an integral part of all researches done on the topic, so, in order to see whether an ageing firm performs better than younger firms; the study required taking their respective ages into account. Firm age is also used by Wiwattanakantang (2001), Amit and Villalonga (2006), Favero, Giglio, Honorati & Panunzi (2006), Sraer and Thesmar (2006) and Anderson and Reeb (2003). Size ultimately affects the outlook of a firm because a greater size means more assets which in turn can be used to show how a firm uses these assets via ROA.

Since the study comprises of data for 100 firms, for a period of 6 years, it was necessary to have 99 dummy variables for firms and 5 dummy variables for the number of years to capture the fixed effects. Moreover, there is a dummy for family ownership as well. So, a total of 105 dummies were taken to accommodate all the variables and thus get a wholesome picture of the situation. The rationale behind employing dummy variables was to increase the overall predictability element of the model.

Table 1. Description of Variables used in the Study.

Variable	Description
1. ROA	Ratio of profit before tax to total assets
2. ROE	Earnings before tax divided by the book value of shareholder equity
3. Tobin's q	Ratio of firm's market value of share to book value of share
4. Size	Log of total assets
5. Age	Log of number of years since incorporation
6. Ownership Dummy	A dummy variable that equals 1 if firm is a family firm and 0 otherwise
7. Year Dummy	A dummy variable that equals 1 for a particular year and 0 for other years
8. Companies Dummy	A dummy variable that equals 1 for a particular company and 0 otherwise

Econometric Models

Since the aim is to compare performance of the family and non-family firms along with control variables like age and size, an equation was prepared much like the one used by Favero, Giglio, Honorati & Panunzi (2006).

The Equation is:

Performance = f (size, age and ownership)

This means that performance is a function of (or depends upon) size, age and ownership (family or non-family). The study covers three different types of performance measures; therefore, the equation is used separately for each measure.

For ROA, elaborating the equation:

$$ROA = \alpha_0 + \alpha_1\Delta_{1t} + \alpha_2\Delta_{2t} + \ldots. + \alpha_{99}\Delta_{99t} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 DF_{4it} + \mu_{it}$$

where:

X_2 = size of the firm

X_3 = age of the firm

DF_4 = dummy variable that takes a value of 1if it's a family firm and 0 otherwise

"i" and "t" in the subscript denote the firms and years respectively.

i = 1, 2, 3…100 (showing 100 firms in the study)

t = 1, 2, 3,4,5,6 (showing 6 years as period of study)

For ROE, the equation becomes:

$$ROE = \alpha_0 + \alpha_1\Delta_{1t} + \alpha_2\Delta_{2t+} \ldots. + \alpha_{99}\Delta_{99t} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 DF_{4it} + \mu_{it}$$

For Tobin's q, the equation is:

$$\text{Tobin's } q = \alpha_0 + \alpha_1\Delta_{1t} + \alpha_2\Delta_{2t+} \ldots. + \alpha_{99}\Delta_{99t} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 DF_{4it} + \mu_{it}$$

Data Analysis

The data collected was required to undergo a statistical analysis so that it could give an insight into what the preliminary results suggest. Statistical analysis would give a hint as to what would be the result of regression and can strengthen or weaken the result. The model selected for the study is a Fixed Effect Model. The idea was to capture the effect that control variables and ownership variable may have on performance measures.

The sample that was picked suggests that Textile, sugar and cement sectors are dominated by family firms, a fact acknowledged by Ghani and Ashraf (2005).

PROBLEMS
OF MANAGEMENT
IN THE 21st CENTURY
Volume 2, 2011

Results of Research

Descriptive Analysis

Table 2. Statistical Summary for the Sample.

Descriptive Statistics							
	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
ROA	600	-3.74623267028E-1	0.49250573091	3.08301473051E1	0.1027671576837	0.12984094673657	0.017
ROE	600	-1.281382978723E1	1.371960091457E0	4.531501029369E1	0.15105003431231	0.843311926056011	0.711
Tobin's q	600	-2.223317972350E0	7.514035708867E1	9.233149876967E2	3.07771662565557E0	8.312956039402067E0	69.105
Log of assets	600	7.781755374652E0	1.079722805772E1	2.797616564302E3	9.32538854767209E0	0.666637158729936	0.444
Log of age	600	4.771212547197E-1	1.838849090737E0	4.428280263817E2	1.47609342127249E0	0.237776847015710	0.057

From Table 2 above, the standard deviation of 0.12984094 for ROA shows that the ROA of sample varies by 12.98% from mean (average). The standard error of mean value is compared with the true value of β (which is unknown). For ROA the value is 0.00749637055502, which shows how far ROA is from the true value of β.

Table 3. Summary Statistics for Family Firms in the Sample.

	Mean	Median	Standard Deviation	Max	Min
Log of assets	9.162137466	9.086377574	0.687494796	10.59528233	7.781755375
Log of age	1.530262947	1.585130858	0.190802264	1.838849091	1.113943352
ROE	-0.018325547	0.134374068	1.126425756	0.676036543	-12.81382979
ROA	0.046502277	0.039089664	0.09914812	0.380734795	-0.324509433
Tobin's q	1.331152032	1.092949511	1.175753733	7.661303191	-2.223317972

Table 4. Summary Statistics for Non-Family Firms in the Sample.

	Mean	Median	Standard Deviation	Max	Min
Log of assets	9.488639629	9.379738901	0.604552836	10.79722806	8.458335626
Log of age	1.488624213	1.454778015	0.24112208	1.792391689	0.84509804
ROE	0.320425616	0.308330672	0.317059554	1.371960091	-0.742089552
ROA	0.159032038	0.137881203	0.132763594	0.492505731	-0.374623267
Tobin's q	4.824281219	1.644228926	11.45207191	75.14035709	0.363356428

Tables 3 and 4 above clearly show that the mean of log of assets, ROE, ROA and Tobin's q of non-family firms is greater than that of family firms. The maximum values of ROA, ROE,

Tobin's q and log of assets for non-family firms is also greater than that of family firms. This goes on to give a hint that non-family firms are bigger in size (greater log of assets) and are better performers than family firms (greater ROA, ROE and Tobin's q for non-family firms). This is the first instance where the study gives an indication that non-family firms are better performers than family firms. The firms run by non-family directors seem to be proficient and more profitable than firms run by families.

Another set of tables that gives an even clearer picture of the situation is when the firms and their ROA, ROE, Tobin's q and log of assets are sorted in descending order. There is a "top 5" table for each performance measure for firms included in the sample.

Table 5. Top 5 firms According to ROA and ROE (6 year average 2004-2009).

Firm Name	Type	Average ROA	Firm Name	Type	Average ROE
Agri Autos Ltd	NF	0.41477437	Unilever Pakistan Ltd	NF	1.2304376
Unilever Pakistan Ltd	NF	0.351480886	Pakistan Tobacco Company	NF	0.717775534
Pakistan Tobacco Company	NF	0.298326688	Mari Gas Ltd	NF	0.574192066
GSK Pakistan Ltd	NF	0.29151044	Agri Autos Ltd	NF	0.54088303
Abbott Pakistan Ltd	NF	0.284782024	Pak Refinery Ltd	NF	0.507761623

F = Family Firm, NF = Non – Family Firm

Table 5 shows that the top slots are occupied by non-family firms according to both ROA and ROE which further confirm what was illustrated in the descriptive statistics.

Table 6. Top 5 firms According to Tobin's q and Log of Assets (6 year average 2004-2009).

Firm Name	Type	Average Tobin's q	Firm Name	Type	Average Log of Assets
Unilever Pakistan Ltd	NF	61.43413788	Hub Power Company Ltd	NF	10.69433303
Wyeth Pakistan Ltd	NF	20.31131955	Fauji Fertilizer Bin Qassim Ltd	NF	10.46152644
Gillette Pakistan Ltd	NF	7.91416605	Nishat Textiles Mills Ltd	NF	10.45004822
Pak Tobacco Company	NF	6.082009863	Dewan Salman Fibre Ltd	F	10.33420626
Abbott Pakistan Ltd	NF	3.774057473	Dawood Hercules Ltd	F	10.26805307

F = Family Firm, NF = Non – Family Firm

Table 6 reinforces what was described in the previous tables: non-family firms are better performers than family firms even when it comes to market measure of performance.

Correlation Results

The correlation matrix employed had to check the relationships between 107 variables that included 99 dummy variables for firms, 5 for years of observation, a family ownership dummy, log of assets and log of age. A few results of correlation are quoted below that would give a hint about the relationships.

PROBLEMS
OF MANAGEMENT
IN THE 21st CENTURY
Volume 2, 2011

Table 7. Correlation Results of ROA, ROE, Tobin's q, Age, Log of Assets, Log of Age and Family Ownership.

	ROA	ROE	Tobin's q	Age	Log of Assets	Log of Age	Family Ownership
ROA	1	0.470**	0.311**	0.088	0.110	0.049	-0.434**
ROE	0.470**	1	0.143*	0.053	0.047	0.032	-0.201**
Tobin's q	0.311**	0.143*	1	0.183**	0.118*	0.146*	-0.210**
Age	0.088	0.053	0.183**	1	0.042	0.956**	-0.893
Log of Assets	0.110	0.047	0.118*	0.042	1	-0.050	-0.182**
Log of Age	0.049	0.032	0.146*	0.956**	-0.050	1	-0.102
Family Ownership	-0.434**	-0.201**	-0.210**	-0.893	-0.182**	-0.102	1

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Important amongst the independent variables were family ownership, log of assets and log of age. In Table 7, the correlation coefficient between family ownership and log of assets is -0.182 which means that, on average, the size of a firm will be small in case a family is running it. This means that the opposite will be true for non-family firms. The correlation coefficient between family ownership and age is negative. An inverse relationship between family ownership and age indicates that older a family firm gets, the poorer will it perform. The correlation coefficient between family ownership and age is -0.893. The relationship of dummy variables of family firms reacted the same way when they were regressed against log of assets and log of age. Family firm dummies were found to have a negative relationship with log of assets while dummies of non-family firms had, on average, a positive relationship.

Regression Results

The dependent variable, ROA, was regressed against independent variables, including log of assets, log of age, a dummy variable of family ownership, 5 dummy variables for years of observation and 99 dummy variables for the firms in the sample.

Table 8: Model Summary when ROA is the Dependent Variable.

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.859[a]	0.739	0.666	0.07503451158424	1.996

Only those variables that are important and whose coefficients lend a meaning to the study are shown above in Table 8. The overall model is significant because the value of R-square is 73.9% which goes on to show that the model is predictable and significant. So the element of uncertainty is removed, at least for the model used to measure performance via ROA. Since the value of Durbin-Watson test is fractionally below 2, the model is also free of autocorrelation.

Table 9. Coefficients of independent variables when ROA is dependent variable.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.770	0.614		2.884	0.004	0.561	2.979
	Log of assets	-0.159	0.054	0.816	2.930	0.004	-0.266	-0.052
	Log of age	-0.194	0.243	-0.356	-0.798	0.056	-0.673	0.285
	Family ownership	-0.008	0.109	-0.030	-0.072	0.042	-0.222	0.206

From Table 9, ROA has a negative relationship with family ownership, a result that further reinforces the statistical analysis. The β of log of assets is 0.816 which means that greater the size (log of assets indicates size), greater will be the ROA. The value is also significant as it has a significance value of 0.004. Log of age, however, has a negative relationship with ROA. More precisely, if age increases by 1 year, the ROA decreases by Rs. 0.356 million.

A similar regression was run with ROE (dependent) against same independent variables.

Table 10. Model Summary when ROE is the Dependent Variable.

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.598	0.357	0.179	0.764251360237857	2.617

The coefficients of ROE model (Table 10) also followed a similar pattern that was exhibited by the previous model. The model showed that log of assets and log of age had a positive β while family ownership had a negative β. Durbin-Watson value of the model is 2.617 which is fairly close to 2 thus rendering the model somewhat free of autocorrelation. The value of R-square is 35.7% for the model.

Table 11. Coefficients of Independent Variables when ROE is a Dependent Variable.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-3.154	6.250		0.505	0.014	-15.468	9.159
	Log of assets	0.317	0.552	0.250	0.574	0.047	-0.771	1.405
	Log of age	0.393	2.478	0.111	0.159	0.074	-4.489	5.274
	Family ownership	-0.412	1.108	-0.244	-0.372	0.011	-2.594	1.771

PROBLEMS
OF MANAGEMENT
IN THE 21st CENTURY
Volume 2, 2011

The negative β of family ownership in Table 11 shows that ROE will decrease for firms that are run by family members. The p-value is significant as well since it is less than 0.05 (a rule of thumb for significance of p-value). Log of age has a positive β. Log of assets also has a positive β and is significant.

Table 12. Model Summary when Tobin's q is Dependant Variable.

Model Summary					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	0.974a	0.950	0.936	2.109587967033781E0	1.467

The overall model in table 12 above is quite significant and predictable as the value of R-square is 95% (the highest amongst the three models). The Durbin-Watson value is 1.467 which is acceptable and suggests that it is safe as far as autocorrelation is concerned.

Table 13. Coefficients of Independent Variables when Tobin's q is Dependant Variable.

Coefficients								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95% Confidence Interval for B**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	47.959	17.252		2.780	0.006	13.969	81.949
	Log of assets	-2.127	1.525	0.171	1.395	0.164	-5.130	0.877
	Log of age	-14.380	6.839	0.411	2.102	0.037	-27.854	-0.905
	Family ownership	-1.529	3.058	-0.092	-0.500	0.017	-7.554	4.495

The coefficients in Table 13 are showing the same results that were observed in the previous two models. Log of assets had a positive β. Log of age also had a positive and a significant β. However, the β of family ownership is negative and significant.

Discussion

Family firms differ from other type of firms because these firms are owned and/or controlled by families. A family may exercise its powers to take advantage of the resources at its disposal for their own benefit, leaving out the minority shareholders. This, however, is just one possible way in which a family, ultimately, ruins the firm (Faccio & Lang, 2002). On the other hand, a family can add a lot to the firm. A family is a distinct phenomenon which binds different views, aspirations and goals and forges all these into one single ambition which is to achieve a much better performance than competitors.

The first analysis of the data above suggests that non-family firms are profitable, as per accounting measure of performance as well as market measure of performance. The analysis

also implies the fact that non-family firms are bigger in size, since the log of assets of non-family firms is higher than that of family firms. One factor that goes in favor of family firms is the "age factor". Family firms, on average, are older than non-family firms, which is evident from the higher value of log of age of family firms as compared to that of non-family firms.

For a company to have a greater value of ROA, it should have greater profits before tax. Since non-family firms on average have greater values of ROA, it is easy to assume that non-family firms, in general, have higher profits before tax than family firms. For the value of ROE to be high, a firm must have higher earnings before tax. Since non-family firms, on average, have high ROE, this means that they have higher earnings before tax as compared to family firms.

So, non-family firms out-perform family firms not only with the accounting measure of performance but also with the market performance measure. The higher value of Tobin's q for non-family firms is because their market value of share is greater than their book value. This shows that the market share price of non-family firms is greater than that of family firms. Greater market price of share and consequently higher Tobin's q value indicates that non-family firms, on average, are viewed positively by investors and view their shares valuably as compared to those of non-family firms.

Although there are a few family firms in the list of log of assets yet it is dominated by non-family firms. This means that non-family firms are bigger in size than family firms. This can be because of the fact that most of the non-family firms are incorporated as local subsidiary of a foreign firm or they may have been incorporated as a result of an ordinance or Government regulation. Most of the non-family firms are bigger in size because they are sponsored by bigger investors like Government and Multi National Companies which inject a lot of funds in the corporation.

The correlation coefficients are strengthening and supporting the statistical findings found before the regression was run. This further adds to overall correctness and credibility of results.

When firms were sorted in descending order, the top slots were occupied by non-family firms. So what was discovered as a result of the regression of the first model was that non-family firms do have higher ROA than family firms. This also falls in line with what was described in table 6 where non-family firms ruled the roost due to their greater size (assets). With increasing age, the ROA decreases.

ROE model has given the same findings i.e. family ownership is negatively related to performance. This underlines the previous findings and the statistical analysis where there were a few family firms that had a better ROE than non-family firms. As firm's age increases, its ROE also increases. Also if the size of the firm increases, the ROE will also increase.

Increase in size will better the firm's market performance. As a firm grows older, the performance just gets better and better but if a firm is run by family members, the performance will be lower as compared to a firm which is being run by unrelated directors (non-family directors). This is in line with the statistical analysis that showed that non-family firms, on average, have a higher Tobin's q as compared to family firms.

Non-family firms have higher ROA than family firms. This is in conformity with the findings of Perez-Gonzalez (1999), Sciascia and Mazzola (2008) and Amit and Villalonga (2006). As far as Pakistan is concerned, the ROA results of this study is not in conformity with Ghani & Ashraf (2005) who came up with a positive sign between ROA and family ownership. The reasons for such differences can be analyzed in future research over the topic.

The ROE model clearly shows that family firms have negative relation with ROE. There is ample support for this result in the literature where firms with more assets performed better than those with lesser assets. However, these results are not in conformity with what Anderson and Reeb (2003), Sraer and Thesmar (2006) and Favero, Giglio, Honorati & Panunzi (2006)

found in their studies regarding the behavior of ROE with respect to family ownership. This non conformity can be addressed in future research.

As found by Ghani and Ashraf (2005), the results for Tobin's q showed a negative sign

The first hypothesis which stated that family firms perform better than non-family firms is, thus rejected. Hence, in this case the opposite is true as non-family firms performed better than family run firms. The second hypothesis was that whether size affects firm performance. The results show that size not only affects firm performance but affects it positively. The third hypothesis tested the relation between age and firm performance. The results of the regression show that age has a positive relation with performance and the relation is significant as well.

Results of this study closely resemble a study done in US where a negative relationship was found between family ownership and firm performance by Perez-Gonzalez (1999). This can be due to the similar conditions found in both the countries and thus can pave a way for further research to examine the macro economic variables in US and Pakistan. Same results were found by Faccio & Lang (2002) and Holderness & Sheehan (1988). Another negative relationship was found by Sciascia & Mazzola (2008). Possible reason, as discussed above, for this strong and repeated result can be due to the fact that family's involvement in management makes it a domestic issue and thus hampers its performance. Wiwattanakantang (2001) has raised serious issues of rivalry between siblings which can be a major reason for negative results.

A recommendation as to the conditional positivity between family ownership and performance has been given by Amit & Villalonga (2006). This would mean a combination of family and non family control over the firm so that there is a strict check and balance.

In future, research can be conducted where reasons of this and previous research can be looked into. This can involve a descriptive or qualitative research on family ownership.

Conclusion

The study is about comparison of family firms and non-family firms listed on Karachi Stock Exchange. Previous results and literature are mixed with both types of results: some say that family run firms perform better while others are of the opinion that the presence of family destroys the firm value.

The statistical analysis provided a first hand idea of what followed in the regression. It showed that non-family firms had greater mean values for ROE, ROA and Tobin's q. That was the first indication of what was to follow. Then sorting the firms in descending order, it was observed that, on average, non-family firms were amongst the top performing firms. This process was repeated for all three performance variables and log of assets and the results were the same. It's a clear indication that non family firms perform better than family firms.

Fixed Effect Model was selected to carry out a regression for the variables. Regression was run thrice with each performance variable taken as a dependent variable. The results of the regression were in conformity to what was observed in the statistical analysis. All the models were significant since the R-square value for all three models was quite high. It showed that the fitted models explain the relationship between the performance variables and independent variables. Family ownership had a negative β in every regression showing that presence of family greatly impedes the performance of firm. Log of asset and log of age had positive βs in every model which suggests that performance of firm increases when assets and age of firm increases.

The results thus obtained clearly reflect that non-family firms are better than family firms, at least in Pakistan. The non-family firms outperformed family firms with every performance variable that was included. Family firms, it seems, are more prone to indulge in private benefit extractions at the expense of minority shareholders. This is quite evident from the findings of the regression and the statistical analysis. There can be several reasons for the

inferior performance of family run firms in comparison with non-family firms which can be researched in the future.

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PROBLEMS
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