

## **Firm Performance in the United Arab Emirates – Does Ownership Matter?**

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*This paper examines the relationship between family owned and nonfamily companies in the United Arab Emirates (UAE) and compares their performances in terms of market indicators and accounting indicators. Corporate ownership structure and its effect on firm performance have been of great interest to academicians over the past three decades and this study based on UAE shows interesting findings about the structure and performance of companies that were listed on the two main stock exchanges of the UAE – the Dubai Financial Market (DFM) and the Abu Dhabi Securities Market (ADX). We selected 306 firm-year observations across five years from 2005 to 2009 as our sample to compare between family and non-family ownership and firm performances. Interestingly, family firms were significantly smaller in size (assets) but older in age than non-family firms. In terms of performance indicators, non-family firms had higher valuation in the market (Tobin's Q) but there was no significant difference in their profitability measures (Return on Assets and Return on Equity). Our results are in contrast with the other country studies in the existing literature where family firms were younger, bigger and better market performers than non-family firms (Venanzi and Morresi, 2010; Amit and Villalonga, 2006; Sraer and Thesmar, 2007; Anderson and Reeb, 2003).*

**JEL Codes:** C23, G32, L25 and M40

### **1. Introduction**

The family controlled firm or family ownership is the most common form of business organization in the world – in Europe, in the USA as well as the Asian countries – and is therefore, a growing field of interest in the finance and management literature. Family businesses in the Middle East region are one of the most important pillars of economic activities and they play a key role in accelerating economic growth and actively contribute for the economic development. More than 80 per cent of businesses in the Middle East are either family-run or controlled by families, a clear indication of the importance of family in the region's economic framework. Family businesses in the UAE represent a key source of employment, major driver of women's involvement in private sector labor force and a dynamic engine for national wealth creation and economic development.

La Porta et al. (1999) carried out their research in 27 countries around the world and found that 68 per cent of the sampled companies were family owned. Claesens et al. (2002) studied listed companies in nine East Asian countries where companies that were

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controlled by families accounted for more than 50 per cent. Anderson and Reeb (2003) claimed that more than one-third of the S&P 500 industries were family firms. In Europe, Barontini and Caprio (2006) examined listed companies in 11 European countries, where 53 per cent were family controlled firms.

Family businesses comprise most of the private sectors of the Gulf economies as well (Davis, Pitts, and Cormier 1997). But due to difficulties in estimating the voting and equity shares of families, and the lack of relevant published statistics, estimating the number of family businesses in the Gulf region in general, and the United Arab Emirates (UAE) in particular is quite difficult. Therefore, there is a complete lack of research on differences or similarities in characteristics of family and non-family firms in this region.

The objective of this study is to distinguish between family and non-family businesses in the UAE and to examine the structure and performance of UAE family businesses compared to nonfamily businesses and to fill the lacuna in the literature. Our study makes important contributions to the literature. First, we collected annual data for all listed companies in the UAE, both family and non-family firms that were listed on the stock exchanges in the UAE (in Dubai and in Abu Dhabi) and were actively traded during the period 2005-2009. The importance of family in this region extends to businesses where approximately 98% of commercial activities in the Gulf Cooperation Council (Saudi Arabia, Kuwait, Bahrain, UAE and most other Gulf countries) are family run (Welsh and Raven, 2006).

This research is the first panel data (cross-sectional and time series) of UAE firms that has been researched using both market data as well as accounting data. Based on the UAE, Rettam and Azzam (2011) based their research on the 2005 Dubai Chamber of Commerce database taking a static model, while Mustafa (2005) used only accounting data of 49 non-financial UAE firms covering many economic activities in only three sectors: manufacturing, commercial and services. Therefore our study makes a valuable contribution to the existing literature.

## **2. Definition of Family Ownership in Business**

Several definitions of family ownership exist in the literature and there is no consensus about any one in particular. The variety of definitions makes comparisons and generalizations difficult, which is a large part of the reason for the varying reports of levels of financial return and the contribution from family businesses to the economy.

The following are a few of the various definitions of family business:

- a) A family member is chief executive, there are at least two generations of family control, a minimum of five percent of the voting stock is held by family or trust interest associated with it.
- b) One in which a family has enough ownership to determine the composition of the board where the CEO and at least one other executive is a family member, and where the intent is to pass the firm on to the next generation.

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- c) The family business is a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families
- d) A family business has also been classified as ownership control (15% or higher) by two or more members of a family or a partnership of families; strategic influence by family members on the management of the firm, whether by being active in management, continuing to shape culture, serving as advisors or board members, or being active shareholders; Concern for family relationships; The dream (or possibility) of continuity across generations.

Westhead and Cowling (1998) show how one may obtain very different results by splitting the same sample into family and non-family businesses on the bases on seven different definitions. Also family businesses are contingent on legal and fiscal framework of the particular country. The share needed for effective control also differs from one research paper to another. Anderson and Reeb (2003) as well as Villalonga and Amit (2004) argue that the most basic definition of a family firm is when one the founder or a member of his or her family (by either blood or marriage) is an officer, a director, or a blockholder, either individually or as a group. This has been considered as the most basic definition that does not require a minimum threshold for family ownership or control according to legal definitions and fiscal framework.

### 3. Literature Review

There has been a vast amount of research studies that have analyzed the effect of ownership structure on firm performance by taking in consideration accounting as well as market based performance. There is a strand of literature which suggests that as compared to non-family firms, family firms perform efficiently. Similarly for several other researched countries, the studies have found contradictory results. There have been several arguments that have been put forward to explain the differences in performances.

The most common is the argument of reduction of agency costs within a family firm (Hill and Snell, 1989). A family structure leads to a more effective control and reduced divergences of interest between managers and shareholders (Fama and Jensen, 1983).

Stein (1989) and James (1999) argued that family-owned firms are expected to make better investment decisions since families have longer investment horizons, with less emphasis on short-term results, thus leading to better performance (Faccio, 2010). In addition, family firms with large undiversified assets are usually long-term investors with substantial wealth at risk, and eager to pass the firm to their heirs in order to maintain the family control. The long-term perspective also helps in building trust between firms and financial institutions (Steijvers and Vooddeckers, 2009), since servicing the firm's debt is necessary (Chua et al., 2011). However, the opposite has been argued where owners might engage in improper controls to increase their profits (La Porta et al., 1999; Shleifer and Vishny, 1997). Family managers may seek to maximize their personal utility such as the perquisites, which could be suboptimal for the firm, (Morck, Shleifer and Vishny 1988; Anderson and Reeb 2003; Morck, Wolfenzon and Yeung 2005). In Spain, family firms

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were found to bear higher agency costs because the family was unwilling to fire managers who were members to that family (Gomez-Mejia et al.,2001).

Anderson and Reeb (2003) studied a sample of US firms in the S&P 500. Firm performance is measured both with accounting profits (Return On Assets) and market valuation data (Tobin's q). Their main finding is that family firms outperform non family firms with accounting data but when market data are used, the result holds only if family firms have a CEO who does not belong to the family. Amit and Villalonga (2005) showed evidence of superior performance of family firms only if the founder is the CEO or when he is the Chairman with an external (to the family) CEO. Similar results were also found for listed European family firms (Barontini and Caprio, 2006) and also for a sample of French listed companies (Sraer and Thesmar, 2007), in terms of both accounting and market data. More recently, Halili et. al (2013) investigated the operating performance of listed firms on the Australian Securities Exchange during the period 1998-2010 – they concluded that family firms were older than non-family firms and median family companies performed better than their non-family counterparts.

Contrasting results were found in some of the other studies around the world. Morck et al. (2000), using Canadian data, provided evidence that family control deteriorates firm performance, in terms of using accounting measures. The most interesting finding in Morck et al. is that they find no evidence of a longer horizon in decision making in family firms – in fact, family firms were found to invest less in R&D and have fewer employees than non-family firms. Perez-Gonzales (2001) studied a sample of 335 successions in listed US family firms - his main result was that ROA and Tobin's Q declined in case of a succession inside the family while there was no impact in case of succession outside the family. A study of the 15 Korean Chaebols (conglomerates) by Chang and Shin (2007) concluded that there was no relation between controlling family ownership and the performance of a firm. Also, Poutziouris and Savva (2011) using a panel dataset from 1998 - 2008, concluded that family involvement is associated with superior accounting performance but inferior market performance.

### **4. Family Ownership in the Middle East**

The rulers and royal family are the most important and powerful investor in the Middle East region. According to a report by Thomson Reuter's, the total Arab states have investments worth US\$319-billion in publicly-listed companies. The rulers and royal families of the Arab World directly control more than \$240-billion of investments in publicly-listed firms, surpassing sovereign wealth fund (SWF) and government institutions. A little over 75% of that investment is directly controlled by the rulers and ruling families' direct offices, 16% from government institutions and only 9% originate from sovereign wealth funds, according to the data. Table 1 and Figure 1 present a breakdown of Arab investments in publicly-listed companies (as of March 2, 2011).

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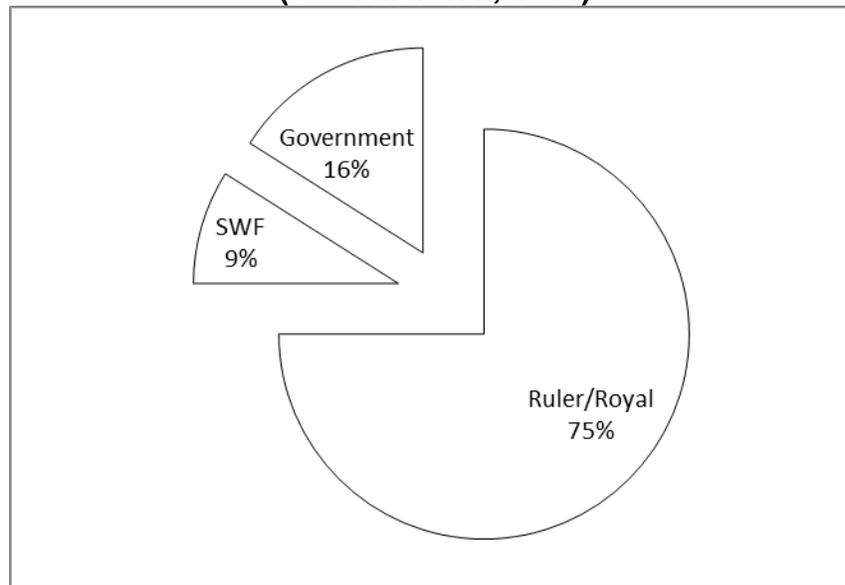
**Table 1: Breakdown of Arab investments in publicly-listed companies**

(as of March 2, 2011)

| Arab Rulers/Govt/SWF Investments In Publicly-Listed Companies |                   |           |            |
|---|-------------------|-----------|------------|
| Country   | Ruler/Families    | SWF       | Government |
| \$ millions   |                   |           |            |
| <b>Bahrain</b>  | 5,216.90          |           |            |
| <b>Egypt</b>  |                   |           | 15,653.50  |
| <b>Jordan</b>   | 6214.2            |           |            |
| <b>Kuwait</b>   |                   |           |            |
| Kuwait Investment Authority                                   |                   | 15,131.60 |            |
| Royal family  | 833.6             |           |            |
| Ruler   | 12,727.10         |           |            |
| <b>Libya</b>  | 1338.7            | 1,545     | 1,832.20   |
| <b>Morocco</b>  |                   |           | 4,549.20   |
| <b>Oman</b>   | 2953.9            | 89.6      |            |
| <b>Qatar</b>  | 39,630.20         | 21,666.60 |            |
| <b>Saudi Arabia</b>   | 143,582.70        |           | 25.3       |
| Saudi Arabian Monetary Agency                                 |                   |           | 6,764.60   |
| <b>United Arab Emirates</b>                                   |                   |           |            |
| Ruler of Fujairah   | 548.8             |           |            |
| Ruler of Sharjah  | 536.5             |           |            |
| Abu Dhabi Investment Authority                                |                   | 1,108.10  |            |
| International Petroleum Investment                            |                   | 9,505.30  |            |
| Mubadala Development  |                   | 407.1     |            |
| Ruler of Abu Dhabi  | 15,458.50         |           |            |
| Ruler of Ajman  | 83.6              |           |            |
| Ruler of Dubai  | 9,848.10          |           |            |
| Ruler of Ras Al-Khaimah                                       | 1,177.40          |           |            |
| Ruler of Umm Al-Qaiwain                                       | 408.30            |           |            |
| <b>Total (\$mn)</b>   | 240,558.50        | 27,786.70 | 50,491.40  |
| <b>Grand Total (\$mn)</b>                                     | <b>318,836.60</b> |           |            |
| <i>Source: Thomson Reuters</i>                                |                   |           |            |

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**Figure 1: Breakdown of Arab investments in publicly-listed companies  
(as of March 2, 2011)**



Some interesting facts are revealed from this data. First, it is difficult to distinguish between the government institutions and those of the ruling families that control them. Second, it is interesting to note that the sovereign wealth fund only comprise a mere 9% of Arab investments in publicly-listed companies. Third, three-fourth of Arab investments in listed companies come from the ruling families' themselves.

## 5. Data and Analysis

### 5.1 The Sample

In our study, we considered the performance of companies from 2005 to 2009 that were listed on the two main stock exchanges of the UAE – the Dubai Financial Market (DFM) and the Abu Dhabi Securities Market (ADX). Only those companies which had active trading (defined as at least 50 trading activities) on the stock exchanges were included in our dataset. Finally we selected 306 firm-year observations across five years from 2005 to 2009 as our sample.

We then went on to classify the firms according to ownership structure. As a starting point, we distinguished those firms that were controlled by a single family, holding at least 20 percent of the shares and could be identified as the controlling shareholding family. The main complication in the application of this definition was that the shareholdings of the controlling family often spread out across a number of other entities such as private holding companies or other group firms. In order to determine whether firms were ultimately controlled, we had to examine the shareholding pattern of each listed firm. This process helped us to establish a common ultimate controlling shareholder - in many cases a coalition of families, either with the same family name or with different family names but joined through marriage, were in control.

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Further, many controlling families were found to have the ownership of the group member firms in a pyramidal structure. In such a structure the family achieves control of the constituent firms by a chain of ownership relations - the family directly controls a firm, which in turn controls another firm. The shareholding pattern of the controlling family was calculated through the ownership of each layer of firms below the controlling shareholder. When the ultimate shareholder was found to hold at least 20 percent of the original company, such firms were classified as being family-controlled.

**Table 2: Ownership-wise of listed firms in UAE according to firm-year observations**

|                             | Family Ownership | Non-family Firms | Total |
|-----------------------------|------------------|------------------|-------|
| Dubai Financial Market      | 49               | 54               | 103   |
| Abu Dhabi Securities market | 94               | 109              | 203   |
| TOTAL                       | 143              | 163              | 306   |

Table 2 shows the break-up of our dataset where, family firms represent 47% of our sample accounting for 143 family firm-years. Villalonga and Amit (2004) looked into the listed US companies where family firms represented 37% of the sample. La Porta et al. (1999) considered listed firms in 27 rich countries, whose capitalization exceeds 500m\$, and found 50% of firms were family controlled. Faccio and Lang (2002) documented that more than 60% of all listed firms were family firms in Italy, France and Germany.

Table 3 shows the industry distribution of the family and non-family ownership pattern amongst listed firms in the UAE. In order to understand the sector-wise break-up, the main line of business of the company, as listed in Zawya Corporate Database was considered. 54 percent of all listed companies in the UAE belonged to the financial sector. Non-family firms were found to operate in almost all sectors, except healthcare, agriculture, and consumer goods.

We also looked at the level of diversification within the companies, where the areas of activities of each firm were studied, based on the industry classification of the Zawya Industrial Classification (ZIC). The 2-digit level of sector classification was considered and the lines of business were taken according to the sectors where each company was specified in the ZIC. Many companies had more than one line of business and some were highly diversified with 5 or 6 lines of business. For example, companies operating in the industrial manufacturing and real estate sectors were found to have 5 or 6 other lines of business (Table 4) and the trend of diversification was prevalent in both the family owned and the non-family firms.

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**Table 3: Sector-wise and ownership-wise break-up of sample of listed firms in UAE**

| SECTOR                   | Family Owned | Non-family | Total      |
|--------------------------|--------------|------------|------------|
| Agriculture              | 5            | 0          | 5          |
| Construction             | 0            | 4          | 4          |
| Consumer Goods           | 2            | 0          | 2          |
| Education                | 0            | 5          | 5          |
| Financial Services       | 84           | 82         | 166        |
| Food and Beverages       | 17           | 5          | 22         |
| Healthcare               | 10           | 0          | 10         |
| Industrial manufacturing | 20           | 16         | 36         |
| Power and Utilities      | 0            | 8          | 8          |
| Real Estate              | 0            | 10         | 10         |
| Telecommunication        | 0            | 9          | 9          |
| Tourism                  | 5            | 5          | 10         |
| Transport                | 0            | 19         | 19         |
| <b>TOTAL</b>             | <b>143</b>   | <b>163</b> | <b>306</b> |

**Table 4: Level of Diversification of listed firms in UAE**

| DIVERSIFICATION          | Family Owned |           |           |          |          | Non-Family |           |           |          |          |          | Total      |
|--------------------------|--------------|-----------|-----------|----------|----------|------------|-----------|-----------|----------|----------|----------|------------|
|                          | 1            | 2         | 3         | 4        | 5        | 1          | 2         | 3         | 4        | 5        | 6        |            |
| Agriculture              |              |           | 5         |          |          |            |           |           |          |          |          | 5          |
| Construction             |              |           |           |          |          |            | 4         |           |          |          |          | 4          |
| Consumer Goods           |              | 2         |           |          |          |            |           |           |          |          |          | 2          |
| Education                |              |           |           |          |          | 5          |           |           |          |          |          | 5          |
| Financial Services       | 74           | 10        |           |          |          | 77         | 5         |           |          |          |          | 166        |
| Food and Beverages       |              | 7         | 5         | 5        |          |            | 5         |           |          |          |          | 22         |
| Healthcare               | 5            |           | 5         |          |          |            |           |           |          |          |          | 10         |
| Industrial manufacturing | 15           |           |           |          | 5        | 8          | 5         |           | 3        |          |          | 36         |
| Power and Utilities      |              |           |           |          |          | 5          | 3         |           |          |          |          | 8          |
| Real Estate              |              |           |           |          |          |            |           |           |          | 5        | 5        | 10         |
| Telecommunication        |              |           |           |          |          | 4          | 5         |           |          |          |          | 9          |
| Tourism                  |              | 5         |           |          |          |            |           | 5         |          |          |          | 10         |
| Transport                |              |           |           |          |          | 5          | 6         | 8         |          |          |          | 19         |
| <b>TOTAL</b>             | <b>94</b>    | <b>24</b> | <b>15</b> | <b>5</b> | <b>5</b> | <b>104</b> | <b>33</b> | <b>13</b> | <b>3</b> | <b>5</b> | <b>5</b> | <b>306</b> |

### 5.2 Descriptive Statistics

Table 5 shows the differences in mean values in each key variable for family and non-family firms. The differences in mean values are also tested to observe whether these differences are significant, at the 1% and 5% levels of significance.

The data on the structure and operations of each firm was then taken from the annual reports of each company, corporate database like Zawya Corporate Database and websites of the stock exchanges. Information on corporate governance mechanisms such as shareholding patterns, board size, outside directors were collected from the individual company websites and their Annual Reports.

Firm Age was calculated as the natural log of the number of years since the founding of the firm. Firm size was taken as the natural log of the total assets of the company in order to smooth the relatively high variability in the sizes. Table 5 shows that in the UAE, the listed firms were approximately 21 years old. However, family firms were significantly smaller in size of their assets than non-family businesses but family firms were older than non-family firms (according to significance levels based on the t-statistics). Our sample structure, therefore, was completely different from the other country studies in the existing literature where family firms were, in general, found to be younger than non-family firms (Venanzi and Morresi, 2010; Villalonga and Amit, 2006; Sraer and Thesmar, 2007; Anderson and Reeb, 2003).

Moreover, the non-family firms were found to give out significantly higher dividends than their family-owned counterparts. Surprisingly, this is similar to the findings in the French listed companies where family firms distributed fewer dividends than non-family firms because they wanted to keep funds inside the firm. The family and non-family firms also had similar levels of diversification - the level of diversification within companies was calculated as the areas of activities of each firm, according to the Zawya Industrial Classification (ZIC). Table 5 shows that the family-owned and the non-family firms were equally diversified (means being 1.63 and 1.67 respectively) without any significant difference.

Corporate governance was measured in terms of the composition of the board of the company. Board\_Size was given by the total number of directors on the board and Outside\_Directors was defined as the number of directors who were not on the management team of the company, as a percentage of the total size of the board. We also looked at the variable CEOonBoard, which was 1 if the CEO (or the director with the highest executive mandate) was also a member of the board, and zero otherwise. Table 5 shows that total size of the board members was more in non-family firms and they had 92.5% of their board comprising of directors who were not part of their management team while, the family firms had a lesser proportion of the board members who were not concerned with the management of the company. This clearly shows the control of the family owned companies over the administration and operations of the organizations. We also find that a higher number of family-owned companies had the CEO as a part of the Board of Directors than their non-family counterparts.

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**Table 5: Descriptive Statistics of variables**

| Variables            | All Firms |          | Family Firms |          | Non Family Firms |          | t-stat        |
|----------------------|-----------|----------|--------------|----------|------------------|----------|---------------|
|                      | Mean      | Std. Dev | Mean         | Std. Dev | Mean             | Std. Dev |               |
| Firm Age             | 21.23     | 12.257   | <b>25.8</b>  | 10.219   | <b>17.2</b>      | 12.53    | -<br>6.565*** |
| Ln Age               | 2.74      | 0.95     | <b>3.13</b>  | 0.57     | <b>2.4</b>       | 1.08     | -<br>7.305*** |
| Ln Assets            | 15.00     | 1.83     | <b>14.54</b> | 1.82     | <b>15.41</b>     | 1.75     | 4.270***      |
| Dividends (in ths)   | 149.62    | 424.89   | <b>73.38</b> | 136.58   | <b>216.50</b>    | 560.27   | 3.156***      |
| Diversification      | 1.66      | 1.135    | <b>1.62</b>  | 1.04     | <b>1.69</b>      | 1.214    | 0.550         |
| Board Size           | 7.74      | 2.030    | <b>7.17</b>  | 1.976    | <b>8.23</b>      | 1.952    | 4.701***      |
| Outside Directors    | 90.1      | 12.33    | <b>87.4</b>  | 13.89    | <b>92.5</b>      | 10.22    | 3.617***      |
| CEOonBoard           | 0.46      | 0.499    | <b>0.56</b>  | 0.498    | <b>0.37</b>      | 0.484    | -<br>3.398*** |
| Number of Firm-Years | 306       |          | 143          |          | 163              |          |               |

\*\*\* shows the significance levels of the difference of means between the family and non-family firms at 1% level.

### 5.3 Performance Indicators

In order to evaluate the performance indicators, this paper uses both the market valuation indicator and the accounting profitability indicators.

#### Market Valuation Indicator (Tobin's Q)

Tobin's Q has been extensively used as the market valuation performance indicator in the literature - Holderness and Sheehan (1988), Claessens et al. (2002), Cronqvist and Nilsson (2003), Anderson and Reeb (2004), Fahlenbrach (2004), and Lins (2003). Tobin's q measures the corporate value of the firm, scaled by assets. We used the firm's market-to-book value as a proxy for Q and market value of common equity was calculated as the product of the share price at fiscal year-end times the number of common shares outstanding. We obtained the data of common shares outstanding from the annual reports of each company for each year while the share price was downloaded from the historical trading prices of each company from the respective stock exchange where they were listed. This measure of stock valuation is the driving factor behind investment decisions in Tobin's model. A low Q (between 0 and 1) means that the cost to replace a firm's assets is greater than the value of its stock, which implies that the stock is undervalued. A high Q (greater than 1) implies that a firm's stock is more expensive than the replacement cost of its assets, implying that the stock is overvalued.

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In our sample, the mean Q of family firms was 0.8 while that of non-family firms was 1.0. This shows that family-owned businesses were undervalued while the non-family entities had their true valuation in the market since the mean Q was 1. When we compared, the difference between the mean Q for family and non-family firms was statistically significant at 5% level. The data, therefore, suggests that non-family firms in the UAE are better performers in the market than family firms, which is in complete contradiction to the results of Amit and Villalonga (2005) and Anderson and Reeb (2003).

### **Accounting Profitability Indicators (ROA and ROE)**

The accounting profitability indicators are the return on assets (ROA) and the return on equity (ROE). Return on Assets (ROA) is the ability of a company to utilize its assets to gain a net profit. It is defined as the ratio of net income to book value of average total assets. Net income was calculated as the earnings before interest, taxes and dividends. The measurement of the performances of firms using ROA is widely supported in the literature (Carpenter 2002; Finkelstein and D'Aveni 1994) and has been used in other studies of the relationship between family involvement and the performance of firms (Minichilli, et al., 2010). Higher levels of RoA indicate higher effective costs of capital.

Return on equity (ROE) is defined as the ratio of net income to book value of equity has been studied to consider the profitability from the shareholders' point of view. Our results indicate that family and non-family firms do not have significant differences in their accounting profitability measures, return on assets as well as return on equity – in fact the return on assets of family firms were marginally higher than that of the non-family firms.

**Table 6: Descriptive Statistics of Performance indicators**

| Variables            | All Firms |          | Family Firms |          | Non Family Firms |          | t-stat  |
|----------------------|-----------|----------|--------------|----------|------------------|----------|---------|
|                      | Mean      | Std. Dev | Mean         | Std. Dev | Mean             | Std. Dev |         |
| Tobin's Q            | 0.912     | 0.977    | 0.8          | 0.76     | <b>1.01</b>      | 1.127    | 1.846** |
| Return on Assets     | 7.48      | 9.327    | <b>7.49</b>  | 8.89     | 7.47             | 9.72     | -0.011  |
| Return on Equity     | 15.7      | 15.198   | 15.23        | 13.41    | <b>16.11</b>     | 16.64    | 0.507   |
| Number of Firm-Years | 306       |          | 143          |          | 163              |          |         |

\*\* shows significance levels of the difference of means between family and non-family firms at 5% level.

## 6. The Regression Model

In this section we tested the null hypothesis

***H<sub>0</sub>: There is no significant impact of the control-type on performance of the listed UAE firms.***

***H<sub>1</sub>: There is significant impact of the control-type on the performance of the listed UAE firms.***

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Further, when we looked at the pooled OLS regression model with respect to the market performance data (Tobin's Q) and the accounting profitability data (ROA), we further tested the null hypothesis based on the preliminary findings of the descriptive statistics.

Cross sectional multivariate OLS regression model was employed to test the hypotheses.

$$Y = a + b_1 \text{Ownership} + b_2 \text{Age} + b_3 \text{Size} + b_4 \text{Diversification} + b_5 \text{Board\_Size} + b_6 \text{Outside\_Directors} + b_7 \text{CEO\_on\_Board} + b_8 \text{Dividends} + e$$

Where Y is the dependent variable which represents the firm performance measure by three variables –

- 1) Tobin's Q;
- 2) Return on Assets (ROA) and
- 3) Return on Equity (ROE)

Control variables used in the regressions are time dummy and industry dummy. Since our previous analysis showed that ROA and ROE were related in the same manner to the family and non-family firms, we will not discuss the results of the multivariate regression analysis with respect to the ROE, but the results showed the robustness of the model. This regression model was run for all the 5 years together as a pooled OLS model.

Table 7 reports the results of the multiple regression models on different measures of family ownership, control and management. We also used dummies to control for the time effects and the industry effects. Industry was controlled in order to account for differences in market opportunities that can influence managerial activities (Zahra 1996), as well as industry-specific constraints that can affect the performances of firms. The variable was measured using the Zawya Industrial Classification code of the firms.

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**Table 7: Multivariate OLS regressions of Tobin's Q and ROA**

| Model             | Dependent Variable: |                    | Collinearity Statistics |       |
|-------------------|---------------------|--------------------|-------------------------|-------|
|                   | Tobin's Q           | ROA                | Tolerance               | VIF   |
| Ownership         | -0.115 (-2.031)**   | -0.080 (-1.271)    | 0.717                   | 1.395 |
| Age               | -0.188 (-3.422)***  | 0.058 (0.939)      | 0.762                   | 1.312 |
| Size              | -0.239 (-3.981)***  | -0.242 (-3.616)*** | 0.639                   | 1.565 |
| Diversification   | -0.031 (-0.571)     | 0.078 (1.288)      | 0.779                   | 1.283 |
| Dividends         | 0.115 (1.972)**     | 0.190 (2.893)***   | 0.672                   | 1.488 |
| Board Size        | -0.008 (-0.147)     | -0.098 (-1.628)    | 0.795                   | 1.258 |
| Outside Directors | -0.044 (-0.715)     | -0.041 (-0.594)    | 0.603                   | 1.659 |
| CEOonBoard        | 0.014 (-0.225)      | -0.010 (-0.138)    | 0.600                   | 1.667 |
| Time Dummy        | -0.286 (-5.855)***  | -0.287 (-5.271)*** | 0.966                   | 1.035 |
| Industry Dummy    | 0.300 (5.191)***    | -0.002 (-0.033)    | 0.689                   | 1.452 |
| F statistics      | 13.995              | 5.465              |                         |       |
| p-values          | 0.000               | 0.000              |                         |       |
| R squared         | 0.567               | 0.396              |                         |       |

The "tolerance" is an indication of the percent of variance in the predictor that cannot be accounted for by the other predictors, hence very small values (less than 0.10) indicate that a predictor is redundant. The Variance Inflation Factor (VIF) is calculated as the inverse of tolerance and as a rule of thumb, a variable whose VIF values is greater than 10 is said to show collinearity in the model. In our model, the "tolerance" and "VIF" values are all acceptable, therefore ruling out the presence of multicollinearity.

When we look at the first column, we find that non-family firms exhibit a significantly better performance in terms of the market data (Tobin's Q) and the negative sign indicates that market valuation decreases as the family control rises. Tobin's Q also had significant negative relations with the age and size of firms –the younger and smaller firms were predicted to show higher valuations in terms of their performance and valuations in the stock market.

In complete contrast, the second column shows that the accounting profitability of the firms, as measured by the ROA, has an insignificant coefficient implying that it does not depend on the ownership factor. Hence, when accounting measures, such as ROA, are used, there is no evidence of inferior or superior performance of family firms, as is significantly evident when performance is measure by market data, like Tobin's Q. Interestingly, similar research done on Italian firms (Favero et al., 2006) and French firms (Sraer and Thesmar, 2006) found the opposite results – namely, family firms showed

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superior performance in terms of the accounting indicator while there was no difference in their market performance indicators.

Another interesting and important result is the effect of Corporate Governance on the performance of the family and non-family owned firms in the UAE. The results show that the presence of the CEO on the Board of Directors makes no difference to any of the performance indicators. The size of the board and the percentage of outside directors also do not have any effect on either the market valuation or the accounting profitability factors.

### **7. Conclusion and Limitations of the Study**

Family businesses are the backbone of most Middle East economies, owing both to their economic contribution and also because of the socio-political impact. The current global competitive environment has placed greater importance on the family businesses. Family business remains the major economic force in the Middle East. According to the DIFC, more than 90 per cent of all commercial activity is estimated to be controlled by family firms in the region. These firms number more than 5,000, hold combined assets of more than \$500 billion (Dh1.83 trillion), and employ 70 per cent of the workforce. The vast majority of businesses in the world are owned or controlled by families and family business is by far the most prevalent form of business in the world. An estimated 75 per cent of the Middle East's private economy is governed by around 5,000 families whose companies generate 70 per cent of regional employment.

This research determines the impact of Family and Non-family ownership on the performance of a firm in the UAE. There is a huge amount of literature which suggests that as compared to non-family firms, family firms perform efficiently and also a vast literature on contradictory results. In this empirical study, Tobin's Q of non-family firms being higher than family firms suggests that the market perceives the non-family firms as better performing than family firms. However, the financial indicators (ROA and ROE) present a positive image of the family firms and present a promising future for family firms.

Our conclusions add to the literature on firm performance with an emphasis on family-owned firms, in the context of the UAE firms. There are, however, some limitations to this research, which might provide opportunities for future research. First, we need to keep in mind that the data for this study was based on those companies that are listed on the two stock exchanges in the UAE. We are aware that major portions of the family businesses in the Middle East are traditional small-scale businesses which do not raise capital in the financial market. Since these small-scale private-owned family firms do not disclose either their financial statements or their corporate governance structure, it was impossible to include these businesses in the study. Therefore, there was a bias in the data in favor of large well-established, listed firms. Second, the research was based on data from 2005 to 2009 – taking a longer time period would give us an insight on the performance of family versus non-family firms during the years of the financial crisis. A model of structural change would give us interesting results once we are able to extend the model in this manner. Finally, it would also be important to develop the idea of interaction between

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government mechanisms, which is likely to open new avenues of research in the family business field, especially in the United Arab Emirates in particular and the Middle East region in general.

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