

## **Evaluating the Effect of Ownership Structure on Firm Performance: Evidence from Saudi Arabian Listed Companies**

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The study aims to evaluate the relation between ownership structure and firm performance; the sample included 171 firms from all the sectors in (Kingdom of Saudi Arabia) KSA for two years, 2013–2014. Two dimensions of ownership structure were studied, concentration and identity of owner, which was subdivided into foreign, managerial, family and institutional ownership. One major financial tool was used to measure firm performance: return on assets (ROA). The study evaluated this relation using several control variables which are: firm size, firm age, financial leverage and industry sector. Ownership concentration was found to have a positive, statistically insignificant effect on company performance. Institutional ownership was found to have a positive effect on company performance. Managerial ownership did not have a significant effect on company performance; however, managerial ownership had a positive effect on performance. Foreign ownership was found to have a negative, statistically significant effect on firm performance, and family ownership was found to have a positive and statistically insignificant effect on firm performance. Other results were revealed by the study regarding company age, size, leverage and sector. The study contributes to the debate about agency theory and the separation that exists between shareholders and management. The study may benefit many interested groups in the KSA and other countries in making business decisions concerning this topic and other related decisions.

**Keywords:** Ownership structure; Firm performance; Concentration of ownership; Institutional ownership; Foreign ownership; Managerial ownership; Family ownership; Agency theory.

### **Introduction**

The ownership structure and its effects on the firm performance have been an important topic for researchers during the last decades, producing an

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ongoing debate in the corporate finance literature (Abu-Serdaneh et al, 2010). Many possible ways exist for a firm to build its ownership, and the type of ownership structure that a firm chooses to adopt is shaped by the vision and mission of the company itself. The ownership structure is defined as: “the distribution of equity with regard to votes and capital as well as the identity of the equity owners” (Jensen & Meckling, 1976). This structure is important in corporate governance, as it determines the incentives of managers and thus the economic efficiency of the corporations that they manage (Jensen & Meckling, 1976).

Agency theory is the starting point for this analysis; the problem of inducing an agent to work on behalf of the principal’s welfare is a general phenomenon. It is apparent in all organizations, at every level of management, in universities, in mutual companies, in cooperatives, in governmental authorities and bureaus, in unions and in relationships normally classified as agency relationships (Jensen & Meckling, 1976). As noted by Imam and Malik (2007), the framework of corporate governance is an important control mechanism because it encourages the efficient and optimal use of corporate resources and ensures accountability for the management of those resources.

Numerous researchers have studied this fundamental conflict that exists among self-interested managers (agent) and owners (principal), in which the agent has the control of the firm but the latter bears most of the wealth effects. Adam Smith (1776) indicated that if an economic company is controlled by one person or a group of persons other than the company’s owners, the objectives of the principal are more likely to be diluted than ideally fulfilled. This throws light on the importance of various incentive mechanisms to deter the agent from practicing such behavior and to act in a way that better affects the decision making of managers and owners, that is, whether they will take more or fewer actions that will enhance the performance and therefore maximize the firm value. Indeed, even after the numerous empirical studies that have proposed to mitigate the fundamental agency problem, it remains contentious. Berle and Means (1932) were the earliest researchers to study this topic; they argued that there is a significant relationship between ownership structure and company performance. On the opposite side, Fama and Jensen (2000) argued that high ownership concentration (of any kind of owner) will lower the financial performance because it increases the firm’s cost of

capital as a result of decreased market liquidity or decreased diversification opportunities on behalf of the investor.

The Saudi Stock Exchange (Tadawul) is the largest stock market in the Middle East; only the biggest financial institutions, such as banks, brokers and fund managers, are allowed to trade on the KSA Stock Exchange (Gillespie, 2015). The KSA Stock Exchange is supervised by the Capital Market Authority and it lists 171 publicly traded companies (as of October 1, 2015); it was formed in accordance with Article 20 of the Capital Market Law establishing it as a joint stock company, which was approved on March 19, 2007 by the Council of Ministers. A considerable proportion of Saudi firms are owned by families, including the royal family. Public companies are listed on the KSA Stock Exchange. Historically, the equity markets of the KSA have been largely closed to non-Saudi (foreign) investors, with foreign access limited to indirect exposure via the derivatives market (Atwill, 2014). However, they opened to foreign investment for the first time in June 2015 due to the low oil prices and the increasingly aggressive and costly foreign policy of the Kingdom (Cabural, 2015). The Saudi market provides investors and companies with enough playing ground. The core issue that most researchers and stakeholders would like to tackle is to demonstrate how a change in the ownership structure may affect the performance of returns, profitability and growth. This study therefore tries to determine the effect of the ownership structure on Saudi listed companies.

### **Research Problem and Objectives**

Different types of ownership structure affect the agency problem differently, so it is important to have an understanding of the efficiency of alternative forms of ownership to demonstrate the nature of the agency problem and to determine the costs associated with it and how firms' performance and value might be affected by it. Moreover, the effect of the ownership structure on performance is an ongoing debate in the corporate finance literature. While authors like Berle and Means (2002) found a negative correlation between shareholdings and firm performance, Demsetz and Villanonga (2001) noted that the ownership structure of a firm should be seen as an endogenous outcome of related decisions that reflect the influence of shareholders and trading on the market shares. The ownership structure, whether concentrated or disparate, influences the

performance of the firm and the profit – maximizing the interest of the shareholders.

The main objective of the researcher is to evaluate the effect of the ownership structure on the firm performance and therefore on the value of the listed companies on the Saudi Stock Exchange, using the return on assets (ROA) as a tool to measure the firms' performance and different ownership structure dimensions to understand how exactly these factors affect the firms' performance and how Saudi and other investors can use this information to their benefit and make the optimal investment decision. Therefore, the following specific objectives were developed: To evaluate the nature of the relation between the ownership structure of the KSA Stock Exchange listed companies and their performance on the Stock Market; To evaluate how the patterns of firm ownership affect firms' performance on the Stock Market; and to provide a future direction and recommendations from the results of the study.

### **Literature Review**

The ownership structure and its effect on the performance of the firm is one of the important topics that have attracted the attention of many researchers in the corporate finance literature, as they were concerned about the firm performance and what makes one entity more valuable and more successful than another firm.

However, it is useful to note that researchers from various countries around the world have found conflicting results, and that could be because of the difference between these papers in the measurement tools used to evaluate the ownership structure or the dimensions and forms of the ownership structure that were studied or simply because they approached the issue from different perspectives. For example, some works have shown a linear relation between the ownership structure and the corporate performance (Cole & Mehran, 2004), whilst other studies have found a non-linear relation (Morck et al, 1988; McConnell & Servaes, 1990). On the other hand, according to Demsetz and Lehn (1983), all structures are equal, as they noted that the performance has no relationship with the ownership structure and it is dependent on the internal and external environment. Therefore, we considered it better to classify the types of ownership structure that were studied according to the dimensions in

which they were studied and then review the previous research that studied the ownership structure in various countries around the world.

### **Concentration of Ownership**

The ownership concentration refers to the total percentage of shares held by an owner relative to the total shares of the shareholding of the firm. This dimension of the ownership structure focuses more on the ability of the owner to monitor and control managerial discretion. On the other hand, it does not take into consideration the investment preferences of the owner(s) and how they influence the priorities and strategies of the firm (Shleifer & Vishny, 1986). However, the ownership concentration is considered to be an important factor that affects a firm's health (Zeitun & Tian, 2007). In this respect, an important issue arises in that concentrated ownership might lead to another form of agency problem, that is, conflicts of interest between large shareholders and small shareholders. Major shareholders have incentives to use their controlling position to extract private benefits at the expense of small shareholders (Lee, 2008). While some empirical research has noted that there is a positive relationship between the ownership concentration and the firm performance, others have suggested that concentrated ownership does not necessarily produce better firm performance. Among others, Wu and Cui (2002) found that there is a positive relation between the concentration of ownership and the accounting profits, using measurement indicators like the return on assets (ROA) and return on equity (ROE), but the relation is negative with respect to market value measurement indicators, like the price to earnings ratio and market price to book value ratio. Moreover, Xu and Wang (1997) studied this relation in publicly listed companies in China. They noted that there is a significant relation between both mixed and concentrated ownership and the performance of stock companies. In addition, Leech and Leahy (1991) noted that concentrated ownership provides improved monitoring incentives, which lead to superior performance. Finally, Hill and Snell (1989) studied this relation in US firms by taking their productivity as an indicator of performance; they found a positive relation between ownership concentration and performance. On the opposite side, many researchers have found a negative relationship between these two variables. Among others, McConnell and Servaes (1990) found no support for a direct relation of large shareholders with firm value. Moreover, Lehmann and Weigand (2000) studied this topic in German firms and found a negative

relationship between the two variables. In addition, Mudambi and Niclosia (1998) noted a negative relation between these two variables in their study on British firms. Another study, by Prowse (1992), evaluated this structure of ownership in Japanese corporations in the 1980s and found no relation between the ownership concentration and the profitability. Finally, Chen and Cheung's (2000) study results also showed a negative relation between concentrated ownership and firm value for a sample of 412 Hong Kong publicly listed companies from 1995 to 1998.

### **Institutional Ownership**

This dimension of ownership can be defined as the amount of a company's available stock owned by mutual or pension funds, insurance companies, investment firms, private foundations, endowments or other large entities that manage funds on behalf of others. Various researchers have studied the role of institutional investors as corporate monitors. This is because of the high cost of monitoring; only large shareholders, such as institutional investors, can achieve sufficient benefits to have an incentive to monitor them (Grossman & Hart, 1980). Large shareholders may have larger incentives to monitor managers than members of the board of directors, who may have little or no wealth invested in the firm. Moreover, large institutional investors have the opportunity, resources and ability to monitor, discipline and influence managers (Shleifer & Vishny, 1986). McConnell and Servaes (1990), Nesbitt (1994), Smith (1996) and Del Guercio and Hawkins (1999) all concluded that firm monitoring by institutional investors can lead to managers focusing more on the firm performance and less on opportunistic or self-interest behavior. On the other hand, Maug (1998) asserted that the ability of institutions to influence firm decisions depends on the size of their shareholdings. If institutional investors' shareholdings are high, the shares are less marketable and thus are held for longer periods, so there is a greater incentive to monitor a firm's management. However, when institutional investors hold few shares in a firm, they can easily liquidate their investments if the firm performs badly and therefore there is less incentive for monitoring. In addition, some studies have looked for a direct effect of institutional ownership on firm performance. McConnell and Servaes (1990) concluded that the percentage of institutional investor ownership has a positive relation with the firm's Tobin's Q. Nesbitt (1994), Smith (1996) and Del Guercio and Hawkins (1999) also found a positive relation

between institutional ownership and various measures of firm performance. Khamis et al., (2015) investigated this relation in listed companies in Bahrain for the period from 2007 to 2011. They found that institutional ownership has a positive, statistically significant effect on performance using the T'Q indicator. However, using the ROA indicator, the effect was negative with statistical insignificance. However, Agrawal and Knoeber (1996), Karpoff et al (1996), Duggal and Millar (1999) and Faccio and Lasfer (2000) all concluded that there is no such significant relation. Thus, the effect of institutional ownership on firm performance is still unclear.

### **Research Methodology**

This part describes the method used for this study. It explains the sample size and the data resources, the measurement of variables, the hypothesis development and the development of the study model.

### **Sample Size and Data Resources**

This study examines the ownership and performance measures used for companies listed on the KSA Stock Exchange. We use a balanced panel data set to observe 171 listed firms and cross-sectional data that resemble a group of companies in a 2-year period (2013–2014). Panel data are considered as one of the best and most used types of data, consisting of two types.

### **Measurement of the Variables**

The selection of variables is based on previous empirical studies; Table 1 shows the dependent variable, the independent variables and the control variables used for the model in this study.

### **Hypotheses' Development**

Various researchers have been interested in searching for the influence of the ownership structure on the firm value, but the findings differ widely. The paper explores the effect of the ownership structure on one dependent variable, which is company performance. Thus, the hypotheses may be shaped according to the ownership dimension and will be analyzed as follows:

H1: There is a positive and statistically significant relationship between ownership concentration and performance among Saudi companies.

H2: There is a positive and statistically significant relationship between foreign ownership and performance among Saudi companies.

H3: There is a positive and statistically significant relationship between institutional ownership and performance among Saudi companies.

H4: There is a positive and statistically significant relationship between management ownership and performance among Saudi companies.

H5: There is a positive and statistically significant relationship between family ownership and performance among Saudi companies.

**Table 1:** Labels and Measurement of the Variables:

Variable	Label	Definition and Measurement
Dependent variable: Firm performance:		
Return on Assets	ROA	The ratio of the net income to the total assets.
Independent variables: Ownership structures:		
Ownership Concentration	Concen	This ownership structure dimension can be measured by the ratio of concentration/dispersion in a way that is similar to the method followed in the previous studies. It is the percentage of shares held by the largest three shareholders to the total number of shares.
Foreign Ownership	Foreign	This is the percentage of total shares held by foreign shareholders to the total number of shares or the proportion of stocks owned by foreign investors.
Institutional Ownership	Institutional	Institutional ownership can be measured by the proportion of equity owned by institutional investors to the total number of shares.
Managerial Ownership	Managerial	In many studies, such as Morck et al (1988 ) and Chen et al (2003 ), directors' shareholdings were used as a proxy for managerial ownership, which is measured by the total percentage of shares held directly by executive directors.



Family Ownership	Family	Family ownership can be measured by the fractional equity ownership of the founding family and (or) the presence of family members on the board of directors to identify family firms (Ronald et al, 2003 ).
Control Variables:		The main objective of the study is to measure the effect of the ownership structure on the corporate value. It is expected that the corporate value is affected not only by the ownership structure dimensions but also by other variables, which were chosen according to previous studies and have been used extensively (e.g. Berger, 2003 ; Kumar, 2003; Nadia, 2004 ).
Firm Size	Size	The natural log of the total assets. This variable has been studied widely in previous studies and it has been found that larger firms mostly have a higher value, which may be explained by their experience, efficiency due to their economy of scale, ability to employ skilled managers and ability to reach a wider range of customers and diversify their operations.
Firm Age	FirmAge	The firm age is related to the shareholders' distribution as companies with older ages have entered many business cycles and have a greater shareholder distribution. The date of incorporation is taken rather than the date of listing the stock on the market.
Financial Leverage	Leverage	The ratio of total debt to total assets. It affects the firm's ability to borrow money and the cost of doing so, which affect the firm's profitability and value due to the increase in the interest rate and the financial obligations of the company.
Industry Sectors	Industry	Companies that belong to different sectors differ in their free cash issues and as a consequence in their dividends. In our study, the KSA Stock Exchange contains 15 different sectors. They are represented by dummy variables from 1 to 15, for example banks and financial services sector = 1, petrochemical industries = 2, ... and so on.

### Study Model

The study's main objective is to evaluate the effect of the ownership structure on the firm performance. Thus, the types of ownership structure are considered as independent variables and the firm performance as the dependent variable. To measure the relation between the different ownership structures and the return on assets (ROA), the study estimates the following linear regression model:

$$ROA_{i,t} = \beta_0 + \beta_1 Concen_{i,t} + \beta_2 Foreign_{i,t} + \beta_3 Institutional_{i,t} \\ + \beta_4 Managerial_{i,t} + \beta_5 FirmSize_{i,t} + \beta_6 FirmAge_{i,t} \\ + \beta_7 Leverage_{i,t} + \beta_8 Industry_{i,t} + \varepsilon_i$$

Where:  $ROA_{i,t}$  is a continuous variable, the dependent variable, and it is the firm value measured by the return on assets for company (i) in year (t).  $\beta_0$  is the constant.  $\beta_{1..8}$  is the slope of the independent and control variables.  $Concen_{i,t}$  is the ownership concentration for company (i) in year (t).  $Foreign_{i,t}$  is the percentage of foreign ownership for company (i) in year (t).  $Institutional_{i,t}$  is the percentage of institutional ownership for company (i) in year (t).  $Managerial_{i,t}$  is the percentage of managerial ownership for company (i) in year (t).  $FirmSize_{i,t}$  is a continuous variable, company size, for company (i) in year (t).  $FirmAge_{i,t}$  is a continuous variable: it is the number of years since the establishment of company (i) in year (t).  $Leverage_{i,t}$  is a continuous variable, financial leverage: it is the ratio of total debt to total assets for company (i) in year (t).  $Industry_{i,t}$  is the type of sector for company (i) in year (t).  $\varepsilon_i$  is the random error.

## 1 DESCRIPTIVE STUDY:

The researchers compare the relative performance across two ownership dimensions: the concentration of ownership and the owner identity. The firm performance is measured in terms of a major financial tool, the return on assets (ROA), as it has been proven to be a representative indicator and related to the firm performance (Khamis et al, 2015). This is the main variable of the statistical measurement. Table 2 summarizes the descriptive statistics of the dependent, independent and control variables. The company performance is measured using the ROA measurement. The mean value for the ROA is 0.047 and the standard deviation is 0.117, which means that little difference exists between companies in achieving returns on their assets. The lowest score is -0.775 and the highest is 0.720.

Regarding the ownership concentration structure, we observe from table 4.1 that the percentage of ownership for the first stockholder in Saudi companies exceeds 25% and in some companies the percentage exceeds 95% of the shares, which may be considered a high concentration of ownership. The mean values of ownership percentages for the second stockholder are lower: on average 10% with a maximum of 37%. The same may be said about the third stockholder of ownership concentration as the ownership percentage declines to 3.5%. In general, the top three

stockholders in the Saudi Arabian stock companies own more than 38% of the stocks, which indicates high levels of ownership concentration.

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## 2 DESCRIPTIVE STUDY

The researchers compare the relative performance across two ownership dimensions: the concentration of ownership and the owner identity. The firm performance is measured in terms of a major financial tool, the return on assets (ROA), as it has been proven to be a representative indicator and related to the firm performance (Khamis et al, 2015). This is the main variable of the statistical measurement. Table 2 summarizes the descriptive statistics of the dependent, independent and control variables. The company performance is measured using the ROA measurement. The

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**Table 2:** Descriptive Statistics:

Variables/Statistics	Mean	Std. Deviation	Minimum	Maximum
<i>Dependent Variable: Firm Performance:</i>				
Return on Assets	0.047	0.117	-0.775	0.720
<i>Independent Variables: Ownership Structure Types:</i>				
<i>Ownership Concentration:</i>				
Top 1	25.754	16.531	5.000	95.000
Top 2	9.593	8.151	0.000	37.500
Top 3	3.560	5.827	0.000	50.000
Foreign Ownership	5.358	10.230	0.000	54.200
Institutional Ownership	33.515	23.941	0.000	83.770
Managerial Ownership	1.180	5.288	0.000	53.000
Family Ownership	3.160	8.621	0.000	53.000
<i>Control Variables:</i>				
Firm Size'000'000	20,772	6	44	434,878
Firm Age	23.260	15.126	2.000	61.000
Financial Leverage	0.491	0.290	-0.027	2.501

From the same table 2, it is apparent that the foreign ownership mean is 5%, which is considered to be low, because the Saudi Arabian equity

markets have been largely closed to non-Saudi investors, with foreign access limited to indirect exposure via the derivatives market (Atwill, 2014). However, they opened to foreigners for the first time in June 2015 due to the low prices of oil and the increasingly aggressive and costly KSA foreign policy (Cabural, 2015).

The institutional ownership mean in the above table is more than 33%. In some companies, the percentage exceeds 83%. This percentage indicates high levels of institutional ownership in the KSA equity market. High levels of institutional investors can result in managers paying more attention to the corporate performance and less to opportunistic or self-interested behavior (McConnell & Servaes, 1990; Nesbitt, 1994; Smith, 1996; Del Guercio and Hawkins, 1999).

The Saudi market may be characterized by low managerial ownership of its companies; the mean percentage is 1% and the standard deviation is high, while in some companies' managers own 53% of the shares and other companies show 0% managerial ownership, according to the measurement tool used in our paper. We can say here that the market has a large agency problem as the managerial ownership falls. In particular, when managers decrease the fraction of their holdings, they tend to gain a large amount of firm resources in the form of perquisites and reduce their efforts because they will gain from only a fraction of the associated net income (Jensen & Meckling, 1976). Family ownership is also considered to be low in the Saudi Arabian market; it is about 3%, as shown in table 2. The existing literature supports the finding that family-owned firms can be less productive than publicly held firms. Family-owned firms would have a high rate of interest, as their rate of risk would be higher because of the concentrated resources of such a business within the firm (Demsetz & Lehn, 1983).

### **Advanced Descriptive Analysis**

In table 3, the firms are divided into firms with high ownership and firms with low ownership based on the median calculated. Both the mean and the standard deviation are calculated for both categories. To assure the significance in the variance between the means of the two samples, the parametric t-test and the non-parametric Mann–Whitney test are performed.

From table 3, we notice that the ROA is higher in companies with high ownership concentration, as the ROA of companies with high ownership concentration is 0.0528, whereas the ROA in companies with low ownership concentration is 0.040. This difference is statistically insignificant at the 5% level according to both tests (t-test and z-test). This can be an indication that concentrated ownership contributes to improving the company performance in Saudi markets. Regarding foreign ownership, it is noticeable from table 4.2 that the ROA is lower in companies with a higher percentage of foreign ownership (0.028%), while the ROA is high in companies with a low percentage of foreign ownership (0.065%). That difference is statistically significant at the 5% level for both tests (t-test and z-test), by which we can indicate that foreign ownership and performance have a negative relationship. Foreign ownership can be seen in two ways. First, this dimension of the ownership structure can improve the performance due to the ability of foreign investors to transfer their financial and technological resources and experience to firms (Huang & Shiu, 2009; Gurbuz & Aybars, 2010; Romalis, 2011). Second, this dimension can damage the performance of the firm as foreign investors are far away from the real workplace and have no control over the firm (Sarac, 2002; Kumar, 2003). Moving to institutional ownership, the relation is clear in table 4.2 as we notice that the ROA is high with low institutional ownership 0.053 and low with high institutional ownership 0.047. This difference is statistically insignificant for both tests (0.645 – t-test and 0.372 – z-test) at the 5% level. For managerial ownership, table 4.2 shows that the ROA is higher in companies that have high levels of managerial ownership (0.122%) than in companies that have a low level of managerial ownership, for which the ROA is only 0.043. This is statistically significant at the 5% level for both tests.

**Table 3:** Company Performance Depending on the Characteristics of the Company:

The independent variable, which is the ownership structure, is divided into two categories: firms with high ownership and firms with low ownership – based on the value of the calculated median and these are compared with firms' ROA. Significance at: *10%; **5% and ***1% levels.					
Statistics ROA	Ownership Structure:				
	Ownership Concentration	Foreign Ownership	Institutional Ownership	Managerial Ownership	Family Ownership
Mean of High Level	0.053	0.029	0.047	0.123	0.089
Mean of Low level	(0.040)	(0.065)	(0.053)	(0.044)	(0.041)
Difference in Mean	0.012	-0.037	-0.006	0.079	0.048
<i>t</i> -statistic	0.976	-2.903***	-0.461	3.468***	3.098***
<i>p</i> -value (t- test)	(0.330)	(0.004)	(0.645)	(0.001)	(0.002)
<i>z</i> -statistic	-1.203	-2.936***	-0.892	-4.276***	-4.375***
<i>p</i> -value ( <i>z</i> -test)	(0.229)	(0.003)	(0.372)	(0.000)	(0.000)

Finally, the ROA is high with high family ownership, which is 0.089, compared with the ROA for low family ownership, which is 0.040. It is statistically significant at the 5% level for both the t-test *p*-value 0.002 and the *z*-test 0.000.

**Table 4:** Pooled Fixed-Effect Regression Model Results:

<p>This study was conducted using panel data which may be tested using firm fixed-effect FE approach or random effect approach. Choosing one of these approaches is done by knowing the result of applying Hausman Test. We noticed that Hausman test result was statistically significant thus fixed-effect FE approach FE should be applied. VIF values are less than 5 for all the independent and control variables, which indicates that the study model does not suffer from Multicollinearity problem. D-W for the study model is located in the range between 1.5 and 2.5 which means that there is no autocorrelation in the study model. t-Critical: at df 341, and confidence level of 99% is 2.326 and level of 95% is 1.645 and level of 90% is 1.282. F-Critical (df for denominator <math>n-\beta-1 = 342-9-1 = 332</math>) and (df for numerator <math>=\beta=9</math> and confidence level of 99% is 2.79 and confidence level of 95% is 2.09 and confidence level of 10% is 1.77. Significance at: *10%; **5% and ***1% levels.</p>					
Variable	Label	VIF	$\beta$	t-statistic	p-value
(Constant)			0.114	5.445***	0.000
<i>Independent Variables:</i>					
<i>Ownership Structure:</i>					
Ownership Concentration	Cons	3.230	5.082	0.104	0.917
Foreign Ownership	Foreign	4.590	-0.001	-2.371**	0.018
Institutional Ownership	Instit	1.335	0.001	1.962**	0.041
Managerial Ownership	Manag	2.998	0.002	1.630	0.104
Family Ownership	Family	1.897	0.001	0.925	0.356
<i>Control Variables:</i>					
Firm Age	FirmAge	1.302	0.001	3.067***	0.002
Firm Size	Size	2.385	-0.173	-8.488***	0.000
Financial Leverage	Leverage	1.925	-7.924	-0.748	0.455
Industry Sector	Industry	2.222	-0.005	-2.942***	0.004
R	0.541				
R-squared	0.293				
F-statistics	13.660***				
p-value (F-statistics)	0.000				
Hausman Test (Chi <sup>2</sup> )	30.230***				
p-value (Chi <sup>2</sup> )	0.000				
Durbin-Watson stat	2.097				



## **EMPIRICAL ANALYSIS AND TESTING OF THE HYPOTHESES:**

The data of the study are considered as panel data that combine time (2013–2014) and cross-sectional data (171 companies). Thereby, a pooled regression model (fixed-effect model) is used and the result is presented in table 4.

As shown in table 4, the R calculated is 54.1%, which shows the percentage of the correlation between the independent, dependent and control variables. The degree of effect of the independent variables and control variables on the firm performance (R-squared) is 29.3%, which is the degree of changes in the dependent variable caused by the independent and control variables. The p-value (F-statistic) calculated is 0.000, which is less than 0.050, which determines that the study model is acceptable and therefore the study hypothesis can be concluded.

The study hypothesis may be tested according to the ownership dimension that will be studied as follows:

### **Testing the Relation between Ownership Concentration and Company Performance**

It can be seen from table 4 that the percentage of concentrated ownership has a positive effect on the performance with statistical insignificance at the 5% level using the ROA. This causes us to reject the hypothesis that ownership concentration has a positive and statistically significant effect on the ROA. That means that companies that have high ownership concentration will have a high ROA, but the model failed to find a statistically significant effect on performance. This result is consistent with Wu and Cui's (2002) study on Chinese firms, which shows a positive effect of concentration on the firm performance using the ROA and ROE. The insignificant results of the concentration variables in the ROA equation could conclude that the Saudi equity market is inefficient or there could be other variables that influence the market performance measure, which were missed in our model. This result is also consistent with Hill and Snell (1989) and Leech and Leahy (1991). However, our results contrast with the findings of Abuserdaneh et al., (2010), who found a negative and statistically significant relation between ownership concentration and performance in the Jordanian market.

### **Testing the Relation between Foreign Ownership and Company Performance:**

In table 4, we notice that the effect of foreign ownership on performance using the ROA is negative and statistically significant at less than 5%, which allows us to reject that hypothesis. This result is consistent with studies like those of Sarac (2002), Kumar (2003) and Solung and Nor (2008). However, we join this result with Majumdar's (1997) statement that firms "are prone to inertia, and the bureaucratic ossification that goes along with age," which may make foreign firms unable to cope with the changes in the Saudi competitive environment, leading to poor performance. Moreover, foreign firms are subjected to a certain kind of learning process, as they are working in an unfamiliar environment and they are competing locally with more informed and experienced domestic firms (Louri, 2003).

### **Testing the Relation between Institutional Ownership and Performance**

The pooled regression model in table 4.3 shows that there is a positive and statistically significant relationship between institutional ownership and performance using the ROA at 5%. This allows us to accept the third hypothesis above. The result is consistent with the findings of the study by Abuserdaneh et al., (2010) in which the influence of the institutional ownership structure on the firm performance was positive using the ROA measure.

### **Testing the Relation between Managerial Ownership and Company Performance**

The relation between managerial ownership and performance is positive but not statistically significant. Thus, the fourth hypothesis may be rejected. This can be justified by the lower percentage of managerial ownership that exists in the Saudi equity market. The finding may not show the actual situation. It is also consistent with the findings of researchers like Severin (2001) and Kumar (2003). This dimension is related to the agency theory, as it suggests that the management should own shares in the company to prevent it from working for its own interests. However, when the management owns a large proportion of the company, it is also expected to work in its own favor.

### **Testing the Relation between Family Ownership and Performance**

In table 4, we notice that the effect of family ownership on the performance using the ROA is positive and statistically insignificant at less than 5%. This allows us to reject the hypothesis. This result is consistent with studies like that of Maury (2006), which found a positive relation between these two variables in relation to Western European corporations.

### **Conclusion**

The main objective of the study was to evaluate the relationship between the ownership structure and the firm performance through the listed companies in the Kingdom of Saudi Arabia. Five factors of ownership structure were selected and believed to be important variables that influence the firm performance. The research started with the agency theory, which suggests that an efficient alternative form of ownership structure should be available to identify the nature of the agency problem and the costs arising from it and how the firm performance and value could be affected by this issue.

Berle and Means (2002) were the first researchers to study the effect of the ownership structure on firms' performance. It is useful to know what really influences the company performance in this area and whether the ownership structure really affects performance. The study also aimed to investigate the most common types of ownership structure in the Kingdom of Saudi Arabia's market. It also considered giving investors some hints about the most advisable selection of companies in which to invest to accomplish the best performance according to the statistical analysis conducted by the study.

Many studies have been conducted on measuring the relationship between the ownership structure and the firm performance by various researchers around the world (e.g. Demsetz & Lehn, 1983; Morck et al, 1998; McConnell & Servaes, 1990; Agrawal & Knoeber, 1996; Cho, 1998; Himmelberg et al, 1999; Holderness et al, 1999; Demsetz & Villanonga, 2001; Andersson et al, 2004; Hu & Izumida, 2008; Ezazi et al, 2011; Izumi Ohno, 2015; Khamis et al, 2015).

The sample of the study consisted of 171 listed companies in the Kingdom of Saudi Arabia. In collecting the data from various online annual reports

published by Saudi Stock Exchange listed companies, two conditions were developed: all the data were available over a period of two years (2013–2014) and the companies were not closed or merged with any other company during the study period.

The ownership structure was measured as the independent variable using two dimensions – the degree of concentration and the identity of the owner – which was also divided into sub-dimensions: institutional ownership, foreign ownership, managerial ownership and family ownership. Firm performance was selected as the dependent variable using the return on assets (ROA) as an indicator to measure this variable; it has been used in many previous studies and has been proved to be a more representative indicator and more related to the firm performance than the T'Q indicator (Khamis et al, 2015). The study also took into consideration four different control variables: firm age, firm size, financial leverage and industry sector. Five different hypotheses were developed for the study; they aimed to ascertain the significance of and measure the relation between the different types of ownership structure selected in the study and the firm performance. The ownership dimensions selected were concentration, foreign, institutional, managerial and family ownership.

Ownership concentration was found to have a positive but not statistically significant effect on performance using the ROA measurement. Firms with high ownership concentration are firms with a high return on assets, which is an indication that this dimension of ownership in the Saudi market contributes to improving the firm performance. Foreign ownership was found to have a negative, statistically significant effect on the firm performance. Saudi firms with a high percentage of foreign ownership achieve a lower return on assets, which proves that this dimension can damage the performance of a firm as foreign investors are far away from the real workplace and have no control over it. Institutional ownership was found to have a positive and statistically significant effect on the firm performance as the outside institutional investors overcome the problem of controlling managers. Managerial ownership was found to have a positive and insignificant effect on the firm performance. Companies with a high percentage of managerial ownership were found to attain a higher return on assets than companies with a low percentage of managerial ownership; when the owners are the managers who control, they are expected to work in the interest of the firm, thus improving the firm's

performance and not wasting or abusing the firm's resources. Family ownership was found to exert a positive and insignificant effect on the firm performance. Saudi firms with a high percentage of family ownership were found to achieve a higher return on assets as incentive alignment will occur, whereby the conflict between the owners and the management will be reduced, so the agency costs will be reduced too.

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