

THE RELATIONS BETWEEN OWNERSHIP STRUCTURE AND CORPORATE PERFORMANCE: EVIDENCE FROM BAHRAIN STOCK EXCHANGE

Reem Khamis*, Wajeeh Al-Ali**, Allam Hamdan**

Abstract

In this article we examine the relation between ownership structure and corporate performance; the sample of the study included 42 out of 48 companies (resembling 87.5% of the population) of all sectors in Bahrain Stock Exchange in five years from 2007-2011. Several dimensions of ownership structure were studied and two different measurements of performance were used (ROA and Tobin's Q) to capture the different results from using each one of them and to assess the relevance of each measurement to performance and to justify the conflicting results found by previous studies. Another objective of this study was to explore the patterns of ownership structure found in Bahraini market. The results of the study revealed that institutional ownership is the most common pattern of ownership structure that exists in Bahraini market. The results of testing the effect of ownership structure on performance were conflicting as expected depending on the measurement of performance that was used. Several recommendations were given to investors depending on the results obtained from the study and several points were cleared out to be addressed by future studies.

Keywords: Ownership Structure, Ownership Concentration, Foreign Ownership, Institutional Ownership, Managerial Ownership, Company Performance

*Brunel University, UK

**Alfalia University, Bahrain

1 Introduction

The relation between ownership structure and firm value and performance has been studied early since 1932, when researchers studied the conflict between owners and management and how it affects corporate value. Berle and Means (1932) indicated that an increase in professionalization of management, companies may operate for managers' benefit not for the benefit of owners. This what was known later as agency problem, when there is a conflict between the owners of the firm and the people who manage that firm when they work to achieve their own benefits rather than the benefits of the owners. Managers often have the discretion and incentives to pursue strategies and practices that benefit themselves at the expense of shareholders (Fama and Jensen, 1983). Different ownership structures affects agency problem differently, so it is crucial to know the firm's ownership structure to determine the nature of agency problem and costs associated with it and how corporate value and performance might be affected by that issue, for example, managers of publicly held firm has different objectives than a manager of a family business and so.

Knowing the firm's ownership structure and determining its effect on corporate value and performance have concerned many researchers around the world from developed to developing countries but

few in the middle east and fewer in GCC countries and this study may be the first one to do so in Bahrain. This study provides empirical evidence from Bahrain on the effect of ownership structure on corporate performance, using different measures of corporate performance and different dimensions of ownership structure to justify the conflicting results found by different researchers. It also investigates the patterns of ownership structures in Bahraini financial market in addition to providing useful information to other interested parties that may benefit from it such as investors and researchers.

1.1 Problem statement and study questions

The study may provide answers to many questions that may be asked by any interested individual or institute. The first question that may arise, do ownership structure really matter? If yes; how do they affect corporate performance? What is the best ownership structure that maximizes the firm's value? What are the patterns of ownership structure in Bahraini market? What are the other factors that may affect corporate performance?

1.2 Study objective

The study aims at exploring the effect of ownership structure on corporate performance in Bahrain using two different ways of measuring corporate

performance and different dimensions of ownership structure to know how exactly these factors affect corporate performance and how investors can benefit from this information to make the correct investment decision.

The paper is organized as follows: Section 2 background and literature review. Section 3 describes research design and methodology. Sections 4 present empirical results. Section 5 provides a brief summary and concluding remarks.

2 Background and literature review

Corporate performance and factors affecting it is an important topic in finance, as many researchers were concerned about the firm performance and what makes one firm more successful than another. There are two different lines of research in the business research world. The first one is concerned about factors in the external economic atmosphere that affects the firm's successfulness, and the second one is concerned about the internal organizational characteristics. Both lines do not give proper attention to the competitive position of the firm itself (Hansen and Wernerfelt, 1989).

Evaluation of the firm performance is an important issue to management of the company, investors and researchers. For managers, evaluation of the firm performance is sometimes tied to their compensation to alleviate the agency problem. To investors, performance is an important indicator for successfulness of their investment or not. In the following section, we will take a look on some performance measure and later on, we will use some of them in measuring the variables of the study.

Ownership structure and its effect on performance of the firm is one of the most covered topics in the literature of corporate finance although the results of most studies are conflicting and that may be because of the difference between these studies in the measurement tools used to measure ownership structure or the dimensions of ownership structure that is studied.

The issue of ownership structure was studied as early as the property rights were known. Berle and Means (1932) were from the earliest ones to study this topic and indicated that there is a significant relationship between ownership structure and company value. Perhaps it is useful to indicate that researchers from different countries found different results. Some researchers found that there is significant relationship between these two variables others couldn't find this relationship. That's could be because they studied the issue from different perspectives. Thus we found it easier to classify ownership structures that were reviewed according to the dimension that was studied and then we will take a look on the previous studies that studied ownership structure in different countries from around the world.

Ownership structure is divided into two dimensions which are: degree of concentration and identity of the owner which is also divided into sub dimensions which are: family ownership, institutional

ownership, government ownership, foreign ownership, and insider or management ownership.

2.1 Concentration of ownership

This dimension is concerned with the degree of dispersion of ownership among certain shareholders. Ownership could be diluted among large number of shareholders or concentrated in small number of shareholders or block holders. The problem of diffuseness of ownership among large number of shareholders is that there will be weakness in monitoring management (Morck et al. 1988), but the advantage is that, there will not be a structure large enough to over control management. In some cases, management would exploit the resources of the firm affecting its value and performance negatively (Berle and Means, 1932).

Some studies such as (Demsetz and Lehn, 1985; Demsetz and Vilalunga, 2001; Kumar, 2003 and Rowe and Davidson, 2002) found that there is no significant relationship between concentrated ownership and company value.

Other studies such (Pivovarsky, 2003; Sanda, Mikailu and Garba, 2005; Joh, 2002 and Xu and Wang, 1997) found a significant relationship between the two variables. Some studies found a positive relationship but insignificant relationship between the two variables such as (McConnell and Servaes, 1990).

2.2 Foreign ownership

Usually foreign investors perform a detailed analysis before investing and they tend to invest in profitable companies. Foreign investors are expected to bring in the latest technologies which allow companies to perform better in an efficient manner thus performance is expected to improve (Caves, 1996; Kumar, 2003)

Again researchers found conflicting results as some found a relation between foreign ownership and company value such as (Bai et al., 2005; Sarkar and Sarkar, 2000 and Patibandla, 2002). Others found a negative relationship such as (Sarac, 2002 and Kumar, 2003)

2.3 Institutional ownership

This dimension of ownership is related to the total percentage of equity owned by institutional investors. Fama, 1980 claimed that institutional ownership is beneficial to the firm and leads to improving its performance and value. Shleifer and Vishny, 1986 explained that possible relation in two points: The first one is that outside block owners have the ability to overcome the problem of controlling managers. The second one is that large block shareholders may also improve the effectiveness of takeover mechanism by overcoming the problem of free rider which rises from the lack of control by shareholders. (Berger, 2003 and Sarac, 2002) found a positive relationship with a moderate statistic effect between institutional ownership and firm value. Others like Wan (1990) found a positive, statistical and significant correlation between the two variables.

2.4 Managerial ownership

This dimension with the concentration ownership dimension forms the agency problem which still a debate between researchers, as when the management controls the firm, it is expected to work in its own interest and if owners control managers, they are expected to work in the interest of the firm thus improving its performance and value and not wasting the firms resources or abuse them. As expected, researchers also found conflicting results regarding managerial ownership as some found a positive relationship such as (Severin, 2001 and Kumar, 2003). Others didn't find that relationship such as (Demsetz and Villalonga, 1999; Rowe and Davidson, 2002 and long and So, 2002).

2.5 Family ownership

Family ownership is very common worldwide. Perhaps it's one of the most presented types of ownership structures around the world. La Porta et al. (2003) mentioned that family ownership is the most common type of organizations in 27 countries worldwide. Some studies found a positive relationship between family ownership and corporate value and performance while others did not find this relationship. A study like Villalonga and Amit (2006) found that firm only makes value when the founder of the firm acts as the COE of the firm. The most important issues that were studied are the founding family owner effect and generation difference effect. In an overall perspective, it can be seen that when family owners are in the management there will be what called incentive alignment where the conflict between owners and management will be reduced thus agency costs will be reduced too. The other important issue which was discussed that other types of owners think only about profit maximization but family owners look at the long term commitment to the company and they try to create competitive advantages that requires large investments at the beginning. (Hsu and Chen, 2009).

Some researchers found a negative effect of family ownership as when the family acts as the block holder of shares, the minority owners will be affected negatively specially when protection laws are weak in certain countries thus a conflict will be created and the performance of the firm will deteriorate. The other issue is that family owners, usually are involved in management thus there may be a bias in choosing management to the family relations issue versus the efficiency issue and that will affect performance for sure, this argument is known as manager discouragement. (Smith and Amoako – Adu, 1999).

2.6 Governmental ownership

In the early years of last century governments played an important role in planning market economy to overcome problems arising from social monopoly (Meade 1948). But in 1970's and 80's huge amount of government owned companies went through privatization to reduce the government role in market

mechanisms. Few governments around the world are still owning and controlling its markets such as China, Russia and some Eastern Europe countries.

There is a debate about the advantages and disadvantages of governmental ownership and the positive and negative effects of it on firm performance.

In the positive side, the total effect of government ownership on society as a whole is considered but not the success of the individual firms. It is known that governmental ownership cures market failures as when the social cost of monopoly becomes high, governments interfere to restore the purchasing power of its citizens thus protecting them. The other issue is governmental ownership of some industries is considered of strategic importance to the whole nation such as natural resources, utilities and infrastructures. As some studies found positive effect of government ownership among private ownership in some industries such as utilities.

In the negative side, governmental ownership is considered to be inefficient and bureaucratic. (Stulz, 1988). As the control rights and cash flow rights of decision maker are interfered, there will not be significant cash flow as all profits are allocated to the firm or to the national budget. Thus, there will be lack of incentives to maximize firm's profits.

Some studies concluded that government owned firms depends largely on the quality of the government itself which varies from one country to another. (La Porta et al., 1999).

The relation between ownership structure and performance has been investigated in many studies around the world. This part will review some of these studies that are related to our study in somehow from different countries.

Severin (2001) investigated the relationship between ownership structure, other variables and the economic performance in a sample of French companies. The results of his study indicated that there is a non-linear relation between ownership structure and performance. He also found that debt level has a negative effect on performance and a company size had a positive effect on performance.

Pinteris (2002) conducted a study on a panel data of 228 Argentine banks from 1997 to 1999. The study explored the relationship between ownership structure, board composition and performance. Results showed that there is statistically negative relation between the proportion of insider directors and performance.

In Turkey, Sarac (2002) conducted a study on a sample of 138 Turkish manufacturing companies. The results showed that a relation between ownership structure and net profit. It also proved that there is a positive relation between institutional ownership and profitability.

A study conducted by Reyana & Valdes (2012) in Mexico on a sample of 90 companies listed in Mexico Stock exchange over five years, explored the relationship between corporate governance, ownership structure and performance. Results indicated that there is a negative relation between CEO ownership and

performance. There was a positive relationship between governance mechanisms and performance.

A study by Tsegba (2011) was conducted on a sample of 73 companies listed in Nigerian Stock exchange. It investigated the relation between ownership structure and performance. It concluded that there is a negative relation between ownership concentration and performance. There was also a negative relationship between insider ownership and performance. The last finding was that there is a positive but insignificant relation between foreign ownership and performance.

Kummar (2003) investigated the relation between ownership structure and performance using ROA measurement on a sample of 5224 Indian companies from 1994 to 2000. He found an evidence that institutional ownership and managerial ownership are related to performance.

Nadia (2004) explored the impact of ownership structure on 15 private banks listed in Amman Stock exchange. The study found that there is a high concentration of ownership in Jordanian banks although it didn't affect performance which was measured using the accounting measurement Returns On Assets (ROA).

Another study which was conducted in Jordan by Jaafar & El-Shawwa (2009) on a sample of 132 Jordanian companies listed in Amman Stock exchange from 2002 to 2005. The study examined the influence of ownership concentration and board characteristics on performance. The study found that ownership concentration, board size and multiple directorships has a significant and positive relationship with performance.

Bjuggren, Eklund and Wiberg (2007) explored the relationship between ownership structure and performance on Swedish companies from 1997 to 2002. The study found that using dual class shares, which give different voting rights and dividends to public shareholders and founders of the company, has a negative effect on company's performance.

Perrini, Rossi and Rovetta (2008) used a sample of companies in Italian market from 2000 to 2003 to explore the relation between ownership structure and performance. It concluded that ownership concentration of the five biggest shareholders of the

company has a positive influence on firm valuation while management ownership benefited only un concentrated companies.

A study conducted by Sulong and Nor (2008) on Malaysian listed firms, investigated the effect of dividends, ownership structure and board governance on firm value. The study found that dividend has a positive significant relationship with firm value. It also showed that concentrated ownership and managerial ownership have insignificant effect on firm value which was unexpected.

3 Research methodology

This part will include three sections. Study sample and resources of data, second section will be measuring of variables and statistical tools, and study models and the last one will be validity of data.

3.1 Study sample and resources of data

This study will be conducted in Bahraini Stock Exchange which is an emerging market because most previous studies were conducted in developed ones like US, UK and European markets or other developing markets such as Nigeria, Pakistan, Malaysia and other developing Asian economies but fewer studies were conducted in the region specially in the GCC markets. Bahrain Stock exchange contains 48 listed companies. Companies were selected according to the following criteria:

- Data is available in the period of 5 years (2007 to 2011).
- Companies have not been closed or emerged with any other company during the study period.

Six companies were excluded from the sample and they were either non Bahraini or were closed during the study period, which left us with 42 companies representing 87.5% of the original sample.

Data was obtained from Bahrain Stock exchange data base. The data is considered panel data which resembles time series (2007 to 2011) and cross sectional data that resemble a group of companies. Panel data is considered as one of the best types of data because it contains two types of data. The procedure of selecting the sample is summarized in table 1.

Table 1. Sample selection

No	Sector	Listed Companies	Excluded Companies	Study Sample
1	Commercial Banks	8	0	8
2	Investment Sector	12	0	12
3	Insurance Sector	5	0	5
4	Service Sector	9	0	9
5	Industrial Sector	3	0	3
6	Hotel-Tourism	5	0	5
7	Closed Companies	2	2	0
8	Non Bahraini Companies	4	4	0
Total		48	6	42

3.2 Hypothesis development

This study will find the effect of ownership structure on one dependent variable which is company performance. The main hypothesis may be formed as follows:

H₀₁: There is a significant relationship between ownership structure and performance among Bahraini companies.

Thus, the study hypothesis may be divided into one main hypothesis and four sub hypotheses according to the ownership dimension that will be studied:

3.2.1 Ownership concentration and performance

The findings of previous studies are contradicted, as some of them like (Joh, 2002 ; Severin, 2001 ; Xu and Wang , 1997) found a positive effect of ownership concentration on performance as concentrated companies had a better performance. Other studies like (Kumar, 2003 ; Rowe and Davidson, 2002; Demsetz and Villalonga, 1999) couldn't find that positive relationship. Thus the first sub hypothesis may be formed as follows:

H_{a1.1}: There is a significant relationship between ownership concentration and performance among Bahraini companies.

3.2.2 Institutional ownership and performance

Reviewed previous studies concerning the relation between institutional ownership and company performance indicated a positive, significant statistical relationship between the two variables like (Wan, 1999). Other studies like (Berger, 2003 and Sarac, 2002) found a relationship between the two variables but in a moderate statistic effect. Thus the second sub hypothesis may be formed as follows:

H_{a1.2}: There is a significant relationship between institutional ownership and performance among Bahraini companies.

3.2.3 Foreign ownership and performance

Previous studies that studied the effect of foreign ownership on performance found different results. Some like (Kummar, 2003 and Sarac, 2002) couldn't find any relation between the two variables. Others, like (Sarkar and Sarkar, 2000 and Patibandla , 2002) found a positive relationship between foreign ownership and company performance. Thus, the third sub hypothesis may be formed as follows:

H_{a1.3}: There is a significant relationship between foreign ownership and performance among Bahraini companies.

3.2.4 Management ownership and performance

Results obtained from previous studies concerning the relationship between managerial ownership and company performance, were also confusing. While some of them found a positive influence of managerial

ownership on performance.(Severin, 2001 and Kummar, 2003). Others like (Demsetz and Villalonga, 1999; Rowe and Davidson, 2002; Long and So, 2002) found like managerial ownership does not enhance performance. Thus the fourth sub hypothesis may be formed as follows:

H_{a1.4}: There is a significant relationship between management ownership and performance among Bahraini companies.

3.3 Study models

This study tries to find the effect of ownership structure on company performance. Thus, ownerships are considered as independent variables and company performance is considered as the dependent variable. The study also uses two different measurement tools to measure the dependent variable (company performance). The first one is simple Tobin's Q formula and the second one is Return on Assets (ROA) formula. Based on that two study models may be developed as follows:

3.3.1 First model

The first model was developed using Tobin's Q as measurement tool to measure the dependent variable (company performance).

3.3.2 Second model

The second model was developed using Return On Equity (ROE) as a measurement tool of the independent variable (company performance).

3.4 Measuring of variables

The selection of variables is based on an examination of previous empirical studies, table 2 shows the dependent variable, the independent variables, and the control variables employed for all estimated models of the study.

3.4.1 Dependent variables; corporate performance

The main purpose of the study is to investigate the influence of ownership structure and other control variables on firm value in Bahrain stock exchange. Which means that firm performance will be considered as dependent variable. To measure firm performance three major ways were found in the literature:

- a) Financial ratios which are obtained from balance sheet and income statement. Studies that were reviewed and used this method are (Long and So, 2002; Pinteris, 2002; Kumar, 2003; Shahid, 2003).
- b) Tobin's Q (e.g. Ruan et al., and Sevein, 2001).
- c) Combined method which uses both measures combined together, financial ratios and Tobin's Q (e.g. Abu Serdaneh et al., 2010 and Demset and Villalonga, 1999 and Wan, 1999).

$$\begin{aligned} \text{Tobin's } Q_{i,t} = & \beta_0 + \beta_1 \text{Concen}_{i,t} + \beta_2 \text{Foreign}_{i,t} + \beta_3 \text{Institutional}_{i,t} + \beta_4 \text{Managerial}_{i,t} \\ & + \beta_5 \text{Size}_{i,t} + \beta_6 \text{Leverage}_{i,t} + \beta_7 \text{FirmAge}_{i,t} + \beta_8 \text{Income}_{i,t} + \beta_9 \text{EPS}_{i,t} \\ & + \beta_{10} \text{Industry}_{i,t} + \varepsilon_i \end{aligned}$$

Where Tobin's $Q_{i,t}$: is a continuous variable: dependent variable: is the firm value measured by Tobin's Q model, for the company (i) and the year of (t).

β_0 : is the constant.

$\beta_{1..10}$: is the slope of the independent and controls variables.

$\text{Concen}_{i,t}$: is the ownership concentration, for the company (i) and the year of (t).

$\text{Foreign}_{i,t}$: is percentage of foreign ownership, for the company (i) and the year of (t).

$\text{Institutional}_{i,t}$: is the percentage, for the company (i) and the year of (t).

$\text{Managerial}_{i,t}$: is the percentage of managerial ownership, for the company (i) and the year of (t).

$\text{Size}_{i,t}$: is a continuous variable: company size, for the company (i) and the year of (t).

$\text{Leverage}_{i,t}$: is a continuous variable: Financial Leverage is the ratio of total debt to the book value of total assets, for the company (i) and the year of (t).

$\text{FirmAge}_{i,t}$: is a continuous variable: is the number of years since the firm first appeared in the BSE database, for the company (i) and the year of (t).

$\text{Netincome}_{i,t}$: is a net income for the company (i) and the year of (t).

$\text{EPS}_{i,t}$: are earnings per share for the company (i) and the year of (t).

$\text{Industry}_{i,t}$: is a type of sector for the company (i) and the year of (t).

ε_i : random error.

$$\begin{aligned} \text{ROA}_{i,t} = & \beta_0 + \beta_1 \text{Concen}_{i,t} + \beta_2 \text{Foreign}_{i,t} + \beta_3 \text{Institutional}_{i,t} + \beta_4 \text{Managerial}_{i,t} \\ & + \beta_5 \text{Size}_{i,t} + \beta_6 \text{Leverage}_{i,t} + \beta_7 \text{FirmAge}_{i,t} + \beta_8 \text{Income}_{i,t} + \beta_9 \text{EPS}_{i,t} \\ & + \beta_{10} \text{Industry}_{i,t} + \varepsilon_i \end{aligned}$$

Where $\text{ROA}_{i,t}$: is a continuous variable: dependent variable: is the firm value measured by return on assets, for the company (i) and the year of (t).

β_0 : is the constant.

$\beta_{1..8}$: is the slope of the independent and controls variables.

$\text{Concen}_{i,t}$: is the ownership concentration, for the company (i) and the year of (t).

$\text{Foreign}_{i,t}$: is percentage of foreign ownership, for the company (i) and the year of (t).

$\text{Institutional}_{i,t}$: is the percentage, for the company (i) and the year of (t).

$\text{Managerial}_{i,t}$: is the percentage of managerial ownership, for the company (i) and the year of (t).

$\text{Size}_{i,t}$: is a continuous variable: company size, for the company (i) and the year of (t).

$\text{Leverage}_{i,t}$: is a continuous variable: Financial Leverage is the ratio of total debt to the book value of total assets, for the company (i) and the year of (t).

$\text{FirmAge}_{i,t}$: is a continuous variable: is the number of years since the firm first appeared in the BSE database, for the company (i) and the year of (t).

$\text{Income}_{i,t}$: is a net income for the company (i) and the year of (t).

$\text{EPS}_{i,t}$: are earnings per share for the company (i) and the year of (t).

$\text{Industry}_{i,t}$: is a type of sector for the company (i) and the year of (t).

ε_i : random error.

Demset and Villalonga (1999; 2001) compared between using financial ratios and Tobin's Q. They claimed that accounting ratios are used widely due to their simplicity but they may be affected by accounting practices. On the other side Tobin's Q which measures market value of the firm by using replacement cost and market value of equity may generate incorrect data regarding companies that depend on intangible capital. But on the other hand; using Tobin's Q captures the expected future performance of firm in addition to the past and current performance (Wan, 1999). The original Tobin's Q formula requires some figures that may not be obtainable because the data is not available, thus researchers usually use a simplified formula for Tobin's Q, the correlation between the two formulas

was found to be very high (97%) as calculated by Chung and Pruitt (1994), which means that it is reliable to use it instead of the original Tobin's Q formula. In this study both measures (ROA and Tobin's Q) will be used as using each measure individually may generate conflicting results concerning the same variables so combined measures will be used to capture features of each measure and the possibility of changing the results (Abu Serdaneh, Zriekat and Al- Shaikh, 2010).

Table 2. The labels and measurement of the variables

Variable	Label	Definition and Measurement
Dependent variables:		
Corporate performance:		
Return on Assets	ROA	Is the ratio of the net income to the total assets.
Simple Tobin's Q	Tobin's Q	Is the (Market value of equity + Book value of short term liabilities) ÷ Book value of total assets.
Independent variables:		
Ownership structure:		
Ownership Concentration	Concen	This dimension will be measuring the ratio of concentration/dispersion in a way that is similar to what was done in previous studies concerned with the same issue which is the ratio of total percentage of shareholding by the largest shareholder (Top1) divided by the sum of share holdings of largest five shareholders in the company.
Foreign ownership	Foreign	It 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	This dimension is related to 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' share holdings was used as a proxy of managerial ownership which is measured by total percentage of shares directly held by executive directors.
Control variables:		
Firm size	Size	The main objective of the study is to measure the effect of ownership structure on corporate value. It is expected that corporate value is not only affected by ownership structure dimensions but also other variables that will be controlled in the study. These control variables were chosen according to previous studies and they were used extensively. (e.g. Kumar, 2003; Berger, 2003; Nadia, 2004). Natural log of total assets. This variable was studied widely in previous studies and it was found that larger firms mostly has higher value and this may be explained to their experience and they may be more efficient due to economies of scales, the ability to employ skilled managers, ability to reach wider range of customers and diversify their operations .
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 affects the firm's profitability and value due to the increase of interest rate and financial obligations of the company.
Firm Age	FirmAge	The firm age is related to the shareholders distribution as companies with older ages entered many business cycles and they have more shareholder distribution. The age of incorporation is taken rather than the age of listing the stock in the market.
Net Income	Income	Information regarding net income of the company can be taken from the balance sheet and income statement of the company.
Earnings Per Share	EPS	is the (net income - dividends on preferred shares) ÷ number of outstanding shares. It indicates profitability of the firm and some researchers consider it as a performance measure.
Industry Sectors	Industry	Companies who belong to different sectors differ in their free cash issues and as a consequence in their dividends. In our study, Bahrain Stock Exchange contains 6 sectors. They were resembles by a dummy variable from 1 to 6 . e.g. bank sector =1 , Investment =2 , ...etc.

3.5 Data validity tests

This study belongs to the General Linear Model (GLM) which requires certain conditions before applying it. Table (3) summarizes the tests that were conducted to validate the date of the study.

3.5.1 Normal distribution test

To test normality of the data (Jarque-Bera) test was conducted and results showed that all the data of the study was normally distributed as p -value more than 5% except two variables which are ownership concentration and, company age and earnings per share where p -value less than 5%. To overcome this problem, natural logarithm of these variables was taken.

3.5.2 Time series stationarity test

Studies that use time series data as this study consider these series to be stable otherwise there might be autocorrelation because the time series are not stable. To test the stationarity of the time series Unit Root Test was used, which include: Augmented Dicky-Fuller Test (ADF) and Phillips-Person Test (PP). From table (1) we notice that the results of both tests were more than the critical value at 1% which means that the time series from 2007-2011 are stable.

3.5.3 Multicollinearity test

The strength of the general linear model depends on the independency of each variable of the independent variables used in the model. If this condition was not met, then the linear model is not considered to be good to be applied and used. To test the independency of the independent variables, (Collinearity Diagnostics Test) was used by measuring the tolerance of each independent variable and then finding the (Variance Inflation Factor (VIF)) as this test is used a measure of the effect of correlation between the independent variables .Gujarati (2003). If the value of (VIF) is more than (10), that indicates that there is a problem with the multicollinearity of the measured independent variable. From table (4), we notice that VIF value is less than (10) for all the independent variables, which means that the study models do not suffer from multicollinearity problem.

3.5.4 Autocorrelation test

Autocorrelation problem appears in the model when two following observations are related which will affect the validity of the model as the independent variables will be affecting the dependent variables in a high degree because of that correlation. To test the presence of that correlation Durbin Watson (D-W) test was used. Table (4) part (B) indicates that (D-W) for the two models is not located in this range (d-statistic

$d_L 1.665 - d_U 1.874$) which means that there is a positive correlation in the two study models (Gujrati, 2003) to overcome this problem Lag (-1) was used when testing the study models.

3.5.5 Homoscedasticity test

When using linear regression models and Ordinary Least Squares (OLS), variance of random error should be constant and the average of it should equal zero, that when it is said that the model has homoscedasticity. And if the variance is not constant it is said that the model has Heteroscedasticity then some statistical methods are used to overcome this problem, one of them is (White test) which is used automatically when using programs like (E-views) when detected by the program itself. From table (4) part (B) p -value for white test is less than 0.05 for both study models which means that the two study models has homoscedasticity and the random error is constant so the models are valid to be used.

4 Descriptive study

The first step in statistical analysis is descriptive statistics for the study variables as mentioned in table (5). After that in tables (6) and (7) we divided the firm performance into firms with high performance and the other with low performance based on the value of the median to compare between firms according to performance. In table (6) firms were divided to firms with high T'Q (high performance) and firms with low T'Q (low performance) which their T'Q value is less than the median. When doing so we end up with two samples and then we find the Mean and Standard deviation for the characteristics of the firm (dividends, ownership concentration, foreign ownership, institutional ownership, managerial ownership) and other control variables (company size, financial leverage, company age, net income, EPS). To identify the significance in the variance between the means of the two samples t -statistic test and z -statistic tests were used. The same can be said about table (7) where performance was divided based on ROA measurement.

In table (8), we looked at the other side, where we divided the characteristics of the firm (ownership concentration, foreign ownership, institutional ownership, managerial ownership) into two parts according to the median value and in each part the mean and standard deviation was found to T'Q and ROA values one at a time. Based on that we can describe the study variables.

Table 3. Normal Distribution and Time Series Stationarity Tests

Variable	Normal Distribution: Jarque-Bera Test				Time Series Stationarity: Unit Root Test	
	J-B	p-value	Skewness	Kurtosis	ADF Test	PP Test
Dependent variables:						
Tobin's Q	2.886**	0.236	0.312	1.739	4.259***	6.211***
Return on Assets	2.324**	0.313	0.625	3.178	4.870***	9.287***
Independent variables:						
Concentration ownership	11.181	0.004	1.263	4.132	6.370***	5.287***
Foreign ownership	1.044**	0.593	-0.331	2.473	4.035***	3.874***
Institutional ownership	4.743**	0.093	0.694	1.849	4.560***	4.225***
Managerial ownership	3.658**	0.161	-0.771	2.634	6.741***	5.455***
Control variables:						
Firm Size	5.456**	0.065	-0.823	4.016	7.455***	5.292***
Financial Leverage	3.452**	0.178	0.029	1.462	3.683***	4.032***
Firm Age	6.102	0.047	-0.227	2.297	5.677***	5.213***
Net Income	2.461**	0.292	0.240	1.793	6.996***	11.826***
Earnings per Share	100.748	0.000	2.702	9.315	7.611***	18.358***

Note: Distributor naturally at: **5%; ADF test Critical Value at 1% is 3.468; at 5% is 2.878; and at 10% is 2.575; Time Series Stationarity at: ***1%; **5%; and *10%

Table 4. Multicollinearity, Autocorrelation and Homoskedasticity Tests

Part A: Multicollinearity Test: Collinearity Statistics Test		
Variables	Tolerance	VIF
Independent variables:		
Concentration ownership	0.804	1.243
Foreign ownership	0.560	1.785
Institutional ownership	0.461	2.169
Managerial ownership	0.897	1.115
Control variables:		
Company Size	0.725	1.379
Financial Leverage	0.831	1.204
Company Age	0.685	1.460
Net Income	0.669	1.495
Earnings per Share	0.793	1.261
Panel B: Autocorrelation and Homoskedasticity Tests		
Model	D-W Test	White Test (p-value)
Model 1: Tobin's Q Model	0.722	2.570 (0.001)
Model 2: Return on Assets Model	1.614	2.407 (0.001)

Note: Durbin–Watson d Statistic at k=10, and n=210 is: d_L 1.665 – d_U 1.874

Table 5. Descriptive statistics of study variables

Variables	Label	Mean	Std. Deviation	Minimum	Maximum
Dependent variables:					
Tobin's Q	Tobin's Q	1.024	0.374	0.201	2.336
Return on Assets	ROA	3.713	31.357	-300.030	38.670
Independent variables:					
Concentration ownership	Concen	55.324	24.668	0.000	98.000
Foreign ownership	Foreign	28.632	27.133	0.000	94.510
Institutional ownership	Institutional	51.049	27.342	0.000	94.510
Managerial ownership	Managerial	4.525	11.087	0.000	47.140
Control variables:					
Company Size BD'000'000	Size	981	2,282	5	12,344
Financial Leverage	Leverage	0.428	0.293	0.001	0.934
Company Age	FirmAge	26	13	1	54
Net Income BD'000'000	Income	11	54	-315	212
Earnings per Share	EPS	-1.300	30.371	-422.240	79.924

Table 6. The company characteristics depending on the level of performance measured by Tobin's Q

Variables	Companies with high Performance			Companies with low Performance			Difference	
	No. Obs.	Mean	Std. Deviation	No. Obs.	Mean	Std. Deviation	t-statistic	z-statistic
Independent variables:								
Concentration ownership	102	57.118	24.139	102	52.791	25.580	1.243 (0.108)	1.330** (0.029)
Foreign ownership	101	26.085	26.126	98	30.615	28.004	-1.180 (0.120)	1.048 (0.111)
Institutional ownership	101	48.949	29.418	98	51.486	24.936	-0.655 (0.256)	1.233** (0.048)
Managerial ownership	101	4.824	12.167	98	4.495	10.223	0.206 (0.418)	0.415 (0.498)
Control variables:								
Company Size BD'000'000	102	506	1,082	102	1,455	2,973	-3.028*** (0.001)	1.890*** (0.001)
Financial Leverage	102	0.463	0.286	102	0.393	0.298	1.714** (0.044)	1.050 (0.110)
Company Age	102	28.520	12.704	102	22.176	11.799	3.695*** (0.000)	1.540*** (0.009)
Net Income BD'000'000	102	14	57	102	8	51	0.872 (0.192)	2.030*** (0.000)
Earnings per Share	101	-3.084	42.716	102	0.485	4.777	-0.839 (0.201)	2.591*** (0.000)

Note: t-test and z-test top, p-value (bottom), one-tailed; Significance at: *10%; **5% and ***1% levels.

Table 7. The company characteristics depending on the level of performance measured by ROA

Variables	Companies with high Performance			Companies with low Performance			Difference	
	No. Obs.	Mean	Std. Deviation	No. Obs.	Mean	Std. Deviation	t-statistic	z-statistic
Independent variables:								
Concentration ownership	102	54.684	24.172	102	55.225	25.730	-0.155 (0.439)	1.330** (0.029)
Foreign ownership	102	21.095	22.251	97	35.908	29.657	-3.998*** (0.000)	2.742*** (0.000)
Institutional ownership	102	45.193	28.681	97	55.462	24.760	-2.698** (0.004)	1.613** (0.006)
Managerial ownership	102	5.674	13.087	97	3.597	8.800	1.307*** (0.096)	0.700 (0.356)

Table 7. The company characteristics depending on the level of performance measured by ROA (continued)

Variables	Companies with high Performance			Companies with low Performance			Difference	
	No. Obs.	Mean	Std. Deviation	No. Obs.	Mean	Std. Deviation	t-statistic	z-statistic
Control variables:								
Firm Size BD'000'000	102	177	309	97	1,785	3,011	-5.365*** (0.000)	3.221*** (0.000)
Financial Leverage	102	0.289	0.232	97	0.566	0.284	-7.618*** (0.000)	3.361*** (0.000)
Firm Age	102	26.363	12.436	97	24.333	12.814	1.148 (0.126)	0.770 (0.297)
Net Income BD'000'000	102	18	36	97	31	67	1.908** (0.029)	3.221*** (0.000)
Earnings per Share	102	0.533	4.772	97	-3.132	42.712	0.861 (0.195)	3.711*** (0.000)

Note: t-test and z-test top, p-value (bottom), one-tailed; Significance at: *10%; **5% and ***1% levels

Table 8. Company performance measured by Tobin's Q and ROA depending on characteristics of the company

Statistics	Concentration ownership		Foreign ownership		Institutional ownership		Managerial ownership	
	High Level	Low Level	High Level	Low Level	High Level	Low Level	High Level	Low Level
Descriptive								
No. Obs.	99	105	98	101	99	100	25	174
Mean	1.005	1.042	0.982	1.068	1.062	0.989	0.896	1.04
Std. Deviation	0.312	0.425	0.402	0.351	0.421	0.329	0.325	0.38
Difference								
t-statistic	-0.710		-1.613*		1.362*		-1.840**	
p-value (t-test)	(0.239)		(0.054)		(0.087)		(0.034)	
z-statistic	1.318**		0.938		1.311**		0.969	
p-value (z-test)	(0.031)		(0.171)		(0.032)		(0.152)	
Return on Assets								
No. Obs.	99	105	98	101	99	100	25	174
Mean	0.841	6.554	1.941	5.775	2.997	4.768	5.601	3.64
Std. Deviation	11.545	6.628	9.436	9.909	9.861	9.796	5.596	10.3
Difference								
t-statistic	-4.365***		-2.794**		-1.271		0.931	
p-value (t-test)	(0.000)		(0.003)		(0.103)		(0.177)	
z-statistic	1.708**		2.301***		1.463**		0.862	
p-value (z-test)	(0.003)		(0.000)		(0.014)		(0.224)	

Note: Significance at: *10%; **5% and ***1% levels.

Table 9. Company performance depending on industry sector

Variables	Banks	Investment	Insurance	Service	Industrial	Hotel-Tourism	F-statistic	Chi-Square
Dependent variables:								
Tobin's Q	0.858	1.003	1.141	1.191	0.709	1.079	6.599***	36.707***
Return on Assets	0.804	-2.147	3.211	11.299	6.100	7.778	15.272***	86.734***
Independent variables:								
Concentration ownership	41.981	62.911	49.926	48.676	65.023	70.011	7.657***	31.859***
Foreign ownership	20.126	46.012	42.272	15.579	16.020	16.248	14.054***	49.056***
Institutional ownership	53.974	56.419	52.302	33.731	68.950	53.240	6.178***	23.201***
Managerial ownership	0.000	4.022	5.320	11.493	0.000	1.448	6.407***	29.208***
Firm Size BD'000'000	2,331	1,673	123	122	323	34	8.052***	106.699***
Financial Leverage	0.662	0.543	0.622	0.217	0.208	0.097	43.925***	106.832***
Firm Age	24.026	23.000	25.400	26.556	35.667	26.400	2.741**	18.872***
Net Income BD'000'000	24	3	2	16	21	3	1.106	13.649**
Earnings per Share	0.015	-4.750	0.029	0.067	0.042	0.030	0.200	30.552***
No. Obs.	40	60	25	45	15	25		

Note: Significance at: *10%; **5% and ***1% levels

4.1 Company performance

Company performance was measured using T'Q and ROA measurements. The Mean for T'Q was more than (1) which gives a positive indication about the value of companies listed in Bahrain Stock Exchange as this means that it achieved a market value that is higher than its book value. The lowest value of T'Q was (0.201). The highest value was (2.336). The highest T'Q was achieved by service sector while the lowest value was achieved by industrial sector. Regarding the second measurement (ROA), it had a mean of 3.782% during the study period and the standard deviation was very high which means there is huge difference between companies in achieving returns on their assets. Lowest (-45.4%) – highest (24.34%). The highest ROA was achieved by service sector and the lowest value was achieved by investment sector. All these results may be found in table (9).

4.2 Ownership concentration

In table (5) we notice that ownership concentration “which was measured by dividing number of shares owned by the largest investor by the total number of shares owned by the largest five investors.” is 55.3% with a very high standard deviation which means that the sample is dispersed.

From table (6) we notice that ownership concentration was higher in companies with high performance as ownership concentration in companies with higher performance (using T'Q measurement) was 57% whereas ownership concentration in companies with lower performance was 52.8%. This difference was statistically significant at 5% according to z-test while it was not according to t-test. This means that whenever the performance of the company increases, it attracts more investors who wish to control the company to invest in it. Whereas if we looked at table (8) where we divided concentration into two parts according to the median value and then we found the mean and standard deviation for the T'Q values, we notice that T'Q values for companies with low ownership concentration was higher than companies with high ownership concentration. This is an indication that ownership concentration does not contribute in improving the company performance as investors invest in companies with high performance without working on improving and increasing the company performance following their investment. Industrial sector has the most concentrated ownership and bank sector had the least as seen in table (9).

4.3 Foreign ownership

Foreign ownership was measured by the percentage of shares owned by non - Bahraini investors in BSE. From table (5) we notice that foreign ownership percentage in BSE is 28.632% and the highest

percentage of foreign ownership was 94.51% that was because Bahraini laws allow GCC citizens to invest and own freely in the country while other companies was with 0% foreign ownership. In table (6) we notice that foreign ownership was less in companies with higher performance using T'Q and ROA measurements. And that difference was statistically significant at less than 1% in performance using ROA measurement but it wasn't the same using T'Q. In table (8) we notice that low percentage of foreign ownership in companies is followed by lower performance using both measures (ROA and T'Q) and that was statistically significant using both measures. Which indicates that foreign ownership and performance has negative relationship in both directions. Foreign ownership was the highest in investment sector and the lowest in service and industrial sector as seen in table (9).

4.4 Institutional ownership

Institutional ownership was the most form of ownership presented in the Bahraini market. As 51% of companies' shares were owned by institutional investors. In some companies, the percentage of institutional ownership reached 94.5%. The relation between institutional ownership and performance was cleared out in table (6, 7) as we notice that institutional ownership decreases in companies with high performance and it increases in companies with low performance and that difference was statistically significant. Also it was found that companies with high institutional ownership have lower dividend yields with statistical significance while company performance measured by T'Q increased when institutional ownership increased. Institutional ownership was the highest in industrial sector and the lowest in service sector as seen in table (9).

4.5 Managerial ownership

Bahraini market may be characterized by the low managerial ownership in its companies. The mean percentage of this ownership dimension was 4.525% meanwhile, the standard deviation was very high, while in some companies, managers owned 47% of the shares, and other companies presented 0% managerial ownership according to the measurement tool used in our study. Managerial ownership did not differ in companies with high or low performance using T'Q measurement while there was difference at 10% using ROA measurement as companies that achieved high ROA was characterized by high managerial ownership and vice versa, companies that are characterized by high managerial ownership had high ROA but that was not statistically significant. Managerial ownership was the highest in service sector and it reached 0% in bank and industrial sectors as cleared out in table (9).

5 Empirical study

After validating the data used in our study using statistical tests to ensure that this data goes with the conditions of applying General Linear Model and Ordinary Least Squares (OLS) as been cleared in the

section methodology. As data is considered as panel data that combine time series (2007-2011) and cross sectional data (42 companies). Based on that Pooled Regression and the results of this test can be found in table (10).

Table 10. Pooled Least Squares Regression Results

Variables	Pooled Least Squares			
	Model 1: Tobin's Q		Model 2: ROA	
	t-Statistic	p-value	t-Statistic	p-value
Independent variables:				
Constant	-0.174	0.863	0.190	0.850
Concentration ownership	1.427	0.161	-2.014**	0.045
Foreign ownership	0.538	0.594	-0.747	0.456
Institutional ownership	2.518**	0.016	-0.273	0.786
Managerial ownership	-1.742*	0.089	0.388	0.699
Control variables:				
Firm Size	-1.833*	0.074	0.973	0.332
Financial Leverage	5.322***	0.000	-2.490**	0.014
Firm Age	0.327	0.745	1.137	0.257
Net Income	1.762*	0.080	5.568***	0.000
Earnings per Share	1.295	0.203	-0.263	0.793
Industry Dummy	5.284***	0.000	2.863***	0.005
R-squared	0.391		0.482	
Adjusted R-squared	0.239		0.451	
F-statistics	2.573**		15.320***	
p-value (F-statistics)	0.017		0.000	
No. of Observations	210		210	

Note: *t*-Critical: at df 209, and confidence level of 99% is 2.326 and level of 95% is 1.960 and level of 90% is 1.645; *F*-Critical (df for denominator $n-\beta-1 = 210-10-1 = 199$) and (df for numerator $=\beta = 11$ and confidence level of 99% is 2.34 and confidence level of 95% is 1.84 and confidence level of 10% is 1.6; Significance at: *10%; **5% and ***1% levels.

The study hypothesis may be tested as follow:

5.1 Testing the first Sub-hypothesis; relationship between ownership concentration and performance

Ownership concentration is considered to be as one dimension of ownership structure. Many studies explored the effect of ownership concentration on company performance. Morck et al. (1988), claimed that the diffuseness of ownership would weaken the monitoring power on management or it may be an advantage to the management by not letting any block shareholders control the firm in their favor against minority shareholders. In both cases company performance would be affected. Table (10) clears out that the effect of ownership concentration on company performance in Bahrain Stock Exchange using T^Q, we notice that t-statistic was positive which indicate the presence of a positive relation between concentration and performance, nevertheless, this relation was not statistically significant, where t-statistic was less than the critical value and p-value was more than 5%. This is consistent with what was found by some researchers such as, (McConnell and

Servaes, 1990) when they found that there is a positive but insignificant relation between the two variables. And it is also consistent with (Perrini, Rossi and Rovetta, 2008), when they indicated a positive effect of ownership concentration on performance.

The relation between concentration and performance using ROA, we notice that it was a negative relation and statistically significant at less than 5%. Which make us accept the hypothesis that indicate that ownership concentration has a negative effect on ROA. Which means that companies that has high ownership concentration will have reduced ROA. This result is consistent with (Abuserdaneh, Zureikat and Al- Sheikh, 2010) where they found a negative and statistically significant relation between ownership concentration and performance in the Jordanian market. But however our results contrasted what was found in Nadia (2004) study which was conducted on the Jordanian banks using ROA measurement and it indicated that ownership concentration did not affect performance.

5.2 Testing the second Sub-hypothesis; relationship between foreign ownership and performance

The effect of foreign ownership was studied by many researchers like (Caves, 1996 and Kummar, 2003) where they mentioned in their studies that usually foreign investors buy shares in successful companies and in some how they are expected to bring in the most recent technologies to the firm thus they play an important role in improving the performance in the firms they invest in. In table (10), we notice that the effect of foreign ownership on performance using T'Q was positive, which is consistent with studies like (Bai et al., 2005, Sarkar and Sarkar, 2000 and Patibandla, 2002) and a negative effect on performance using ROA model which consistent with studies like (Solung and Nor, 2008). But both models failed to find a statistically significant effect neither positively nor negatively.

5.3 Testing the third Sub-hypothesis; relationship between institutional ownership and performance

Fama (1980), indicated in his study that institutional ownership improves firm performance, many studies like (Shleifer and Vishny, 1986) that institutional ownership would affect performance in two ways: the first one that it makes outside block shareholders overcome the controlling managers and the second one is: that it would reduce the free rider problem which arise from the lack of shareholders control. Institutional ownership is the most common form of ownership structure in Bahrain Stock Exchange as mentioned in the descriptive statistics section as they own over 51% of the companies' shares, but the question here is does this type of ownership affects performance? In table (10), we may see the regression results where we can see the effect of institutional ownership on performance using T'Q model, we notice that it was a positive effect and statistically significant at less than 5%. This result is consistent with what was found in some studies like (Wan, 1990) and partially with what was found by others like (Berger, 2003 and Sarac, 2002) where they found a positive relation but with moderate statistic effect between the two variable. Using ROA model, the effect was negative and without any statistical significance between institutional ownership and performance. This result contrast what was mentioned in the study of (Abuserdaneh, Zureikat and Al-Sheikh, 2010) where the effect of institutional ownership on performance was positive when using ROA model.

5.4 Testing the fourth Sub-hypothesis; relationship between management ownership and performance

This dimension is related to the agency theory, as when management owns a large portion of the firm, it is expected to work in its own favor and when it owns less portion, it is expected to work in the favor of the firm itself. In Bahrain, although management ownership percentage is minimal, there was a negative effect with statistical significance at less than 10% on performance using T'Q model which is consistent with what was found by researchers like (Demsetz and Villalonga, 1990 and Rowe and Davidson, 2002) and a positive insignificant effect using ROA model which is consistent with studies like (Severin, 2001 and Kummar, 2003).

5.5 Testing the effect of control variables on performance

The findings of the study were conflicting regarding the effect of company size on performance. We can see in table (10) that company size has a negative effect that is statistically significant at less than 1% on performance using T'Q model. We can see also in the same table that it has a positive effect that is not statistically significant on performance using ROA model.

The results were conflicting again. We noticed that financial leverage has a positive effect with statistical significance at less than 1% on performance using T'Q model and a negative effect with statistical significance at less than 5% on performance using ROA. Although company age has a positive relation with performance as seen in table (10) but it was not a statistical significant effect on performance. The study proved that net income has a positive significant effect on performance using T'Q and ROA models. In table (10), we can see that EPS has a positive insignificant effect on performance using T'Q model and a negative insignificant effect on performance using ROA model.

Our results confirmed that the sector that the company belong to has a positive significant effect at less 1% on performance. This is consistent with what was mentioned previously in the descriptive statistics which indicated that the performance of the company is different according to the sector it belongs to.

5.6 Comparing the study models

To know which of the study models represents the relation between the study independent variables (ownership structure & dividends) and the dependent variable (company performance), Adjusted R-Squared was measured, as seen in table (10), which is used to compare between the models of the study. Whenever Adj. R² increases this means that the model represents the relation more. From table (10), we notice that Adj. R² for ROA model equal 45.1% and

for T'Q equal 23.9%. Based on that we may consider ROA model represents the relation between variables more. This is consistent with what was found by previous studies such as Abu Serdaneh et. al. (2010) , where they used both models to measure performance and they found that ROA model represents the relation more but they indicated that this needs to be confirmed by other studies that follow the same methodology.

6 Conclusion and recommendation

The main objective of the study was; knowing what really affect company performance. Four factors of ownership structure were chosen and believed to be from the most important factors that affect performance. ownership structure were from the earliest factors to be studied as (Berle and Means, 1932) were from the first researchers to study the effect of ownership structure on performance. Few studies were conducted in the Middle East and very few or no studies were conducted about this topic in the GCC area. In Bahrain, this is the first time that this topic has been studied. So, this study is considered to be the first study to cover this gap.

It is beneficial to know what really affects company performance in this area and whether ownership structure really affect performance. The study also aimed at investigating the most common type of ownership structure that presents in Bahraini market. It also consider giving investors some hints about what may be the best choice of companies to invest in that achieve the best performance according to the statistical analysis conducted by the study.

To conduct this study, the sample was chosen to be the whole Bahraini Bourse which includes all the listed companies in Bahrain Stock Exchange during a period of 5 years from 2007 to 2011. Six companies were excluded because they were either non-Bahraini or closed during the study period. The study after that considered ownership structure dimensions as independent variables and company performance as the dependent variable. Ownership structure was studied from different dimensions. The dimensions that were chosen to represent ownership structure were: ownership concentration, institutional ownership, foreign ownership and managerial ownership. Several control variables were chosen based on previous studies and what was believed to be affecting the variables of the study. The study built two different regression models to study the effect of ownership on performance. The first model used simplified Tobin's Q formula as an indicator of performance and the second model used Return on Assets as an indicator of performance. The two models were used to capture the differences between them and justify the conflicting results found by different previous studies and then we compared between them using statistical tools to determine

which indicator is better to be used as an indicator of company performance.

Different validity tests were conducted on data and the models to validate them before testing them. The data and the models were valid and any errors that were found were overcome using statistical tools. Four hypotheses were developed regarding the relation between each independent variable (ownership concentration, institutional ownership, foreign ownership and managerial ownership) and company performance. The models after that were tested and some descriptive statistics were defined, the following results were obtained:

a) The results of testing regression models were conflicting depending on the performance indicator that was used (T'Q or ROA).

b) The most common type of ownership structure found in Bahraini market was institutional ownership.

c) The most profitable sector that achieved the highest profits during the study period was the bank sector and the least one was.

d) The best performance using T'Q indicator was achieved by service sector and the lowest was by industrial sector. Using ROA, the highest performance was achieved by service sector and the lowest was by investment sector.

e) Ownership concentration was found to be having positive effect but not statistically significant on performance using T'Q indicator. And it has a negative statistically significant effect on performance using ROA measurement.

f) Institutional ownership was found to be having positive and statistically significant effect on performance using T'Q indicator. And using ROA indicator, the effect was negative with no statistical significance.

g) Foreign ownership was found to be having positive effect using T'Q indicator and negative effect using ROA indicator with no statistical significance using both indicators.

h) Managerial ownership was found to be having negative statistically significant effect on performance using T'Q and a positive insignificant effect using ROA indicator.

i) The effect of company size on performance was found to be negative with statistical significance using T'Q and a positive effect that is not statistically significant using ROA indicator.

j) The effect of financial leverage on performance was found to be positive and statistically significant using T'Q and a negative effect that is statistically significant using ROA indicator.

k) Company age was found to be having positive effect with no statistical significance on performance.

l) Net income was found to be having positive significant effect on performance using ROA and T'Q indicators.

m) EPS was found to be having positive effect on performance using T'Q and a negative effect on performance using ROA. Both effects were not statistically significant.

n) Company sector was found to be having a positive statistically significant effect on performance.

o) The best indicator of performance that was used by the study was ROA over T'Q. As it was found to be more related and it reflects the truth about performance more than the other indicator as was proved by statistical tests when the hypothesis of the study were tested.

Based on the study results; Investors are strongly encouraged to look at low debt companies when they expect high profits. The study found that ownership concentration affects performance negatively when applying ROA indicator so lows that protect minority shareholders and their rights are surely welcome.

The study is considered to be limited because it studies performance in companies in a period of five years only 2007-2011. This time series may be unstable because the global financial crisis occurred during this period. Future studies may take longer and different time series. The study was conducted in Bahraini market and it is considered to be a small sample to be studied and it is considered to be an emerging market. Further studies may be conducted on the whole GCC market, because the GCC economies are considered to be having a lot of similarities in lows and nature of economy. The study found that ROA indicator is more representative and related to performance. This needs to be confirmed by other studies following the same methodology to confirm what was found in our study or other data needed to be known when applying the T'Q indicator to correctly assess its relevance to performance. Family ownership was not studied in our research although it exists in Bahrain because of lack of data; Bahrain Stock Exchange is encouraged to announce the data that is related to family ownership so that its effect on performance may be studied in future.

References

- 1 Abu-Serdaneh, J., Zuriekat, M., & Al-Sheikh, I. (2010). Ownership Structure and Corporate performance in the Jordanian manufacturing companies. *Jordan journal of Business Administration*, 6(3), 426-439.
- 2 Berger, A. (2003). Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry. Working Paper, *University of South Carolina* <http://papers.ssrn.com>.
- 3 Berle, A. & Means, G. (1932). *The Modern Corporation and Private Property*. New York: Larcourt, Brace and World Inc., (Republished:1968).
- 4 Bjuggren, P., Eklund, J. & Wiberg, D. (2007). Ownership Structure, Control and Firm Performance: The Effects of Vote-differentiated Shares. *Applied Financial Economics*, 17 (16), 1323-1334.
- 5 Caves, E. (1996). *Multinational Enterprises and Economic Analysis*. 2th edition, Cambridge: Cambridge University Press.
- 6 Chang, R. & Rhee, S. (1990). The Impact of Personal Taxes on Corporate Dividend Policy and Capital Structure Decisions, *Financial Management*, 19(1), 21-31.
- 7 Chen, C. Guo, W. & Mande, V. (2003). Managerial Ownership and Firm Valuation: Evidence from Japanese Firms. *Pacific-Basin Finance Journal*, 11(3), 267-283.
- 8 Chen, C., Guo, W. & Mande, V. (2003). Managerial Ownership and Firm Valuation: Evidence from Japanese Firms, *Pacific-Basin Finance Journal*, 11(1), 267-283.
- 9 Chung, K. & Pruitt, S. (1994). A Simple Approximation of Tobin's Q, *Financial Management*, 23, 3: 70-74.
- 10 Demsetz, H. & Lehn, K. (1985). The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy*, 93(6), 1155-1177.
- 11 Demsetz, H. & Villalonga, B. (1999). Ownership Structure and Corporate Performance, Working Paper, *University of California*.
- 12 Demsetz, H. & Villalonga, B. (2001). Ownership Structure and Corporate Performance. *Journal of Corporate Finance*, 7(3), 209-233.
- 13 Fama, E. (1980). Agency Problem and the Theory of the Firm. *Journal of Political Economy*, 88(2), 288-307.
- 14 Fama, E. & Jensen, M. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26(June), 301-325.
- 15 Gordon, M. (1959). Dividends Earnings and Stock Prices. *Review of Economics and Statistics*, 41(1), 99-105.
- 16 Gujarati, D. (2003). *Basic Econometrics*. 4th Ed. McGraw-Hill Higher Education: New York.
- 17 Han, C., Lee, S. & Suk, D. (1999). Institutional Shareholders and Dividends, *Journal of Financial and Strategic Decisions*, 12(1), 53-62.
- 18 Jaafar, A. & El Shawa, M. (2009). Ownership Concentration, Board Characteristics and Performance: Evidence from Jordan. SSRN: <http://ssrn.com/abstract=1392727>
- 19 Jensen, M. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review Papers and Proceedings*, 76(2), 323-329.
- 20 Jensen, M. & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, *Journal of Financial Economics*, 3(1), 305-360.
- 21 Joh, S. (2002). Control, Ownership and Firm Performance: The Case of Korea. Working Paper, *Corea Development Institute*.
- 22 Kumar, J. (2003). Does Ownership Structure Influence Firm Value? Evidence from India. Working Paper, *Indira Gandhi Institute of Development Research, India*.
- 23 La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (1998). Law and Finance, *Journal of Political Economy*, 106(6), 1113-1155.
- 24 La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (2002). Investor Protection and Corporate Valuation, *Journal of Finance*, 57(1), 1147-1170.
- 25 La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (2000a). Agency Problems and Dividend Policies Around the World, *Journal of Finance*, 55(1), 1-33.

- 26 La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (2000b). Investor Protection and Corporate Governance, *Journal of Financial Economics*, 58(1), 3-28.
- 27 Lang, L. & So, R. (2002). Bank Ownership Structure and Economic Performance. Working Paper, *Chinese University of Hong Kong*.
- 28 McConnell, J. & Servaes, H. (1990). Additional Evidence on Equity Ownership and Corporate Value. *The Journal of Financial Economics* 27(1), 595-612.
- 29 McConnell, J. & Servaes, H. (1995). Equity Ownership and the Two Faces of Debt. *Journal of Financial Economics*, 39(1), 131-157.
- 30 Morck, R., Shleifer, A. & Vishny, R. (1988). Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20(1988), 293-315.
- 31 Morck, R., Shleifer, A. & Vishny, R. (1988). Management Ownership and Market Valuation: An Empirical Analysis, *Journal of Financial Economics*, 20(1-2), 293-315.
- 32 Nadia, T. (2004). Ownership Structure, Board Characteristics and Firm Profitability, Master Dissertation, *Hashemite University*, Jordan
- 33 Perrini, F., Rossi, G. & Rovetta, B. (2008). Does Ownership Structure Affect Performance? Evidence from the Italian Market. *Corporate Governance*, 16(4), 312-325.
- 34 Pinteris, G. (2002). Ownership Structure, Board Characteristics and Performance of Argentine Banks. Working Paper, *University of Illinois*.
- 35 Rowe, W. & Davidson, W. (2002). Endogeneity in Financial Performance and Board Composition: The Case of Closed-End Funds. Working Paper, *University of Nebraska*.
- 36 Sarac, M. (2002). An Empirical Analysis of Corporate Ownership Structure in Turkish Manufacturing Sector. Working Paper, *Bogazici University*, Istanbul.
- 37 Sarkar, J. & Sarkar, S. (2000). Large Shareholder Activism in Corporate Governance in Developing Countries: Evidence from India. *International Review of Finance*, 1(3), 161-194.
- 38 Severin, E. (2001). Ownership Structure and the Performance of Firms: Evidence from France. *European Journal of Economic and Social Systems*, 15(2), 85-107
- 39 Shleifer, A. & Vishny, R. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy*, 94(3), 461-488.
- 40 Sulong, Z., & Nor, F. (2008). Dividends, ownership structure and board governance on firm value: empirical evidence from Malaysian listed firms. *Malaysian Accounting Review*, 7(2), 55-92.
- 41 University of Texas-Dallas. Xu, X. & Wang, Y. (1997). Ownership Structure, Corporate Governance, and Firm's Performance: The Case of Chinese Stock Companies. Working Paper, *Amherst College and the World Bank*.
- 42 Wan, K. (1999). Do Ownership and Firm Performance Proxies Matter? An Empirical Study of the Relation of Ownership Structure and Firm. Working paper.