

Ownership Structure and Corporate Performance in the Jordanian Manufacturing Companies

Jamal Abu-Serdaneh, Majdy I. Zuriekat, Imad Al-Sheikh

ABSTRACT

This study examines empirically the effects of ownership structure and other explanatory factors on the firm performance for a five year panel of 56 Jordanian manufacturing companies. The results suggest that profitability decreases with high concentration ownership and increases with high portion of equity owned by institutional investors. However, there is no significant relationship between profitability and foreign ownership and management ownership dimensions. The study results document that using different ownership structure dimensions and different profitability measures may justify the different results between ROA and Tobin's Q in this study and in prior studies.

Another byproduct objective in this study is to explore the patterns of ownership structure in Jordanian manufacturing companies. The findings show that these companies tend to be concentrated rather than diffused, foreign ownership dimension is nearly constant at moderate level 14% average, institutional ownership dimension is around 28% over the five years (2002 to 2006), and the number of companies in which a general manager is a member on the board of directors is more than 50%.

Keywords: Ownership Structure, Corporate Performance, Shareholding Pattern.

INTRODUCTION

The relation between ownership structure and performance has captured the attention of researchers for many decades, since they started to study the conflict between management and owners. The importance of this topic goes back to the Berle and Means (1932) who indicated that an increase in professionalization of management, firms might be operating for managers' benefit rather than the owners.

The core of this issue is the agency problem due to the conflict of interests between the owners of the firms and those who manage the firm (Pintetris, 2002). The agency theory suggests that the corporate form of organization is characterized by professional

management with little ownership operating a business on behalf of a large number of widely dispersed shareholders. This agency problem stems from the fact that managers often have the discretion and incentives to pursue strategies and practices that benefit themselves at the expense of shareholders (Fama and Jenson, 1983).

By increasing the size of the firm and diffusing its ownership, the resolution for the conflict of interests between owners and managers becomes a central issue. Accordingly, determining the ownership structure of the firm and testing its effect on the firm's performance has captured the attention of many researchers in different countries but not in our region.

This paper provides empirical evidence on the relationship between ownership structure and performance in the Jordanian manufacturing sector. The paper contributes to the existing empirical literature on corporate governance in four ways. First, investigating

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the conflicting results in prior empirical studies and applying methodology to capture the possibility of changing in results by using different measures of corporate performance and different dimensions of ownership structure. Second, there is limited empirical evidence on corporate governance issues in Jordanian manufacturing sector. Third, exploring the patterns of ownership structure in Jordanian manufacturing companies. Fourth, providing some implications to different parties (e.g. Amman Stock Exchange, investors and researchers).

In particular, the objective of this study is to provide answers to questions that may arise, such as does ownership structure matter? If it does, what is the preferred ownership structure for shareholding companies? What are the recent trends in ownership structure? What are the other firm characteristics that could affect corporate performance?

These important questions captured the attention of researchers who are trying to explore in recent literature. In this context, the study investigates Jordanian manufacturing companies in order to provide new evidence on how ownership structure influences corporate performance.

LITERATURE REVIEW

The nature of the relationship between the ownership structure and corporate performance has been the core issue of corporate governance literature. The overall concept of corporate governance aims to improve the firm value or performance and achieve good administrative performance. The Organization for Economic Co-operation and Development (OECD) issued some roles and principles to guarantee the best financial and administrative performance. OECD has started to develop and issue general principles since 1992 as follows: the right of shareholders, the equitable treatment of shareholders, the role of stockholders in

corporate governance, and the responsibilities of the board.

Agency cost represents an important problem in corporate governance. The separation of ownership and control in a professionally firm may result in managers exerting insufficient work effort, choosing decisions that suit their own preferences, or otherwise failing to maximize corporate performance. On the other hand, the controlling owner may use his/her position in the firm to extract private benefits at the expense of the other shareholders by appointing managers that represent its own interest.

Ownership Structure and Performance

Ownership structure or shareholding patterns are considered as one of the major mechanisms to control the agency's costs in the corporate governance literature (Kumar, 2003). Numerous empirical studies have tried to highlight in evidence the relationship between ownership structure and corporate performance. Prior literature can be divided into two categories; First, literature that provided evidence that a significant relationship between these two concepts does exist. This literature was conducted with seminal work Berle and Means (1932) and later it was supported by McConnell and Servaes (1990), Short and Keasey (1999), Berger (2003), Kumar (2003) and Chen et. al. (2003). Such literature hypothesized that the diffuseness of ownership should result in an increased relationship between ownership concentration and firm performance, because when ownership structure is sufficiently diffused, managers can entrench themselves and pursue non value maximizing objectives even if they hold little equity. The second category is literature that concluded that there is no relationship between ownership structure and firm performance. Such studies were conducted by Demsetz (1983), Demsetz and Lehn (1985), Himmelberg et al. (1999), and Habib and Ljungqvist (2005).

The prior empirical studies apparently have

conflicting results, which requires asking what accounts for such disagreement? Cho (1998) and Wan (1999) suggested a possible explanation for these contradictory empirical evidences. The different measures of ownership structure may be one explanation for such different empirical evidences. From reviewing the empirical literature, it can be established that different dimensions are used to define corporate ownership; for example Demsetz and Lehn (1985) used ownership concentration to measure the ownership structure dimension, Morck et. al. (1988) and McConnell and Servaes (1995) used management ownership, Gedajlovic and Shapiro (2002) and Lang and So (2002) and Shahid (2003) used the owner controller dimension, Kumar (2003) used foreign ownership and manager controller vs. owner controller.

Using the different dimensions of corporate ownership means using a different metric of ownership structure; for example, ownership concentration measures dispersion of ownership among all certain shareholders, whereas management ownership measures the aggregate ownership and/or the voting power of the management team.

The different measures of a firm performance are another explanation for the different empirical evidences presented in prior studies. Shahid (2003), Kumar (2003), Pinteris (2002), and Joh (2002) used return on asset ratio to measure firm performance. Lang and So (2002), Demsetz and Villalonga (1999) and others used Tobin's Q to measure performance. Different measures for firm performance may produce different relations with the same ownership structures. For example, return on asset ratio measures the past and current performance of the firm; whereas Tobin's Q captures the expected future performance of the firm in addition to the past and current performance (Wan, 1999).

The last possible explanation to the different results in prior studies is using different methodologies and

statistical analysis. Some of these studies proposed the existence of a linear relationship between ownership structure and performance, which required designing a linear model and using multivariate multiple regression analysis (e.g. Cole and Mehran, 1998; Kumare, 2003; Pinteris, 2002; Nadia, 2004; Berger, 2003). Other sort of studies hypothesized a non-linear relationship between ownership structure and performance, which requires using different statistical methods such as Wilcoxon and Mann-witny (e.g. McConnell and Servaes, 1990; 1995; Kole, 1995; Short and Keasy, 1999).

Prior Studies

Corporate ownership studies since 1930's and the issue of relation between ownership and performance has always been in the field of hot discussions. This paper will review only the most related empirical studies after 2000.

Severin (2001) examined the influence of ownership structure, variables of external and organizational discipline on financial and economic performance for a sample of French companies. He found a non-linear relation between ownership structure and performance. The study results revealed that the variables of external discipline, that is leverage and stock-turnover, partly explain performance. Although debt level negatively influences performance, conversely, stock-turnover has a beneficial impact on performance. Finally, though the organizational variables seem to have no significant impact on performance, corporate size has a positive influence on performance.

Pinteris (2002) provided empirical evidence on the relationship between ownership structure, board composition and performance on the panel data of 228 annual observations on Argentine bank from 1997 to 1999. The main empirical findings showed that no relationship between ownership concentration and accounting can be measured by profitability. However, there was a statistically negative relationship between

the proportion of inside directors and performance.

Sarac (2002) attempted to find out whether corporate ownership structure affects firm performance in published data of 138 Turkish manufacturing companies. The analysis showed that there is a meaningful relationship between ownership structure and net profit. Also, institutional ownership is positively related to profitability.

Kumar (2003) examined empirically the effect of ownership structure on the firm performance (ROA) using a panel of 5224 Indian corporate firms from 1994 to 2000. He provided some evidence that the shareholding by institutional investors and managers affects firm performance.

Nadia (2004) investigated the impact of ownership structure on the 15 private Jordanian listed banks. The findings indicated the presence of a highly concentrated ownership structure in the Jordanian banks that does not influence the accounting performance indicator (return on asset).

Bjuggren, Eklund and Wiberg (2007) examined the relationship between ownership, control and performance of Swedish listed companies (1997-2002). They also investigated how the separation of vote and capital shares' creates a wedge between the incentives and the ability to pursue value-maximization. The findings displayed that firms, on average, are making inferior investment decisions and that the use of dual-class shares have a negative effect on performance.

Perrini, Rossi and Rovetta (2008) explored the relationship between ownership structure and firm performance by using panel data from the Italian market since 2000 to 2003. They used two ownership dimensions; the fraction of shares owned by the five largest shareholders and the fraction of shares owned by management. The results showed that the ownership concentration of the five largest shareholders is

beneficial to firm valuation, while managerial ownership is beneficial only in non-concentrated firms.

Jaafar and EL Shawa (2009) examined the effects of ownership concentration and board characteristics on the performance of 103 listed Jordanian companies for fiscal years 2002-2005. The results suggest that ownership concentration, multiple directorships and board size are each positive and significant in determining firm performance. The study results support authors argument that the reforms of corporate governance principles in emerging markets must go beyond adopting the best practice in developed markets and take into account the country and firm-specific.

DATA AND METHODOLOGY

Sample

This study represents a sample consisting of all Jordanian manufacturing companies traded in Amman Stock Exchange (ASE). A five year panel data are compiled out of ownership information and financial statements of these companies between 2002 and 2006.

However, the data from some companies were unavailable in some years because of liquidation, merger, or the establishment of new companies; such companies have been eliminated from the sample set. The total number of companies analyzed is 56 and the total number of observations added up to 280 (Appendix 1 lists the companies that are included in the study sample).

This study uses an average for each company over five years (2002-2006) in order to reduce the effects of temporary shocks on the measurement of performance and to examine the equilibrium relationship in the data.

Variables and Measurements

To examine the effect of ownership structure on the performance of Jordanian manufacturing companies, it is assumed that firm's performance depends on a number

of explanatory variables; ownership structure, dimensions, and other firm characteristics.

Performance Variable

The main objective of this study is to investigate the impact of ownership and other control variables on the Jordanian manufacturing companies, which means considering company's performance as the dependent variable. The literature employs a number of different measures of firm performance. These measures include; 1) financial ratio from balance sheet and income statement (e.g. Long and So, 2002; Pinteris, 2002; Kumar, 2003; Shahid, 2003). 2) Tobin's Q (e.g. Severin, 2001; Zhou, 2001). 3) financial ratios and Tobin's Q (e.g. Demset and Villalonga, 1999; Wan, 1999).

Demset and Villalonga (1999; 2001) discussed the features of using financial ratios versus Tobin's Q. They argued that accounting ratios are used extensively in the literature because of its simplicity, but such ratios are affected by accounting practices. On the other hand, Tobin's Q which considers market value of the firm by using replacement cost and market value of equity, may lead to distort performance comparisons of the firms that rely on differing degrees on intangible capital. However, using Tobin's Q captures the expected future performance of firm in addition to the past and current performance (Wan, 1999).

As mentioned earlier, different measures for firm performance may produce a different relation with the same ownership structure. Therefore, both measures (accounting ratios and Tobin's Q) are used in this study to capture features of each measure and the possibility of changing the results.

Ownership Structure Variables

Most of the prior empirical studies used only one dimension of ownership structure, which is proposed to be one of the reasons for producing conflicting results. This study draws a picture of ownership structure in

Jordan across the time using multiple dimensions. The following are the dimensions of ownership structure that are used in this study:

1- Concentration Ownership

Ownership concentration measures dispersion of ownership among all or certain shareholders. The problem with diluted ownership in public held corporations is that ownership is distributed among an extremely large number of shareholders, none of whom has incentives to monitor management (Morck et al., 1988). The advantageous feature of diffuseness is producing ownership structure where shareholders are large enough to not surrender control to management and cannot control the firm, which leads to extract their private benefits or abuses minority shareholder. But this situation may make the shareholder unable to effectively control the decisions of the management team, and thus encourages management to exploit the firm's resources to serve its own interests (Berle and Means, 1932).

Empirical prior studies which are related to the effect of ownership concentration on corporate performance found contradicted results; for example, some studies found that concentrated structure firms have significant better performance (e.g. Joh, 2002; Severin, 2001; Xu and Wang, 1997), other studies did not find such a relationship (e.g. Kumar, 2003; Rowe and Davidson, 2002; Demsetz and Villalonga, 1999).

In this study, concentration/dispersion is the first dimension of ownership structure, which requires to determine if ownership of Jordanian companies is diffused or concentrated and to determine if such ownership structure affects performance. To measure this dimension, the same measure that was used in prior similar studies is used; the ratio of total percentage of shareholdings by persons who have 5%, 10%, 15% or 20% of issued company's shares. Therefore, hypothesis 1 is stated as follows:

H1: There is a significant relationship between ownership concentration and performance among the Jordanian companies.

2- Foreign Ownership

Foreigners usually invest in profitable companies, because they do sophisticated analysis prior to investment. So, as the proportion of stock owned by foreign investors increases, performance is expected to increase as well (Sarac, 2002). Increased foreign investors provide advantages for using technology and know-how, which allows the firm to be more productive and efficient than domestic firms (Caves, 1996; Kumar, 2003).

The prior literature that examined the impact of foreign ownership on performance found different results; Sarac (2002) and Kumar (2003) did not find any relationship between ownership structure and performance. But a relationship was found in other studies such as Sarkar and Sarkar (2000) and Patibandla (2002). Therefore, hypothesis 2 is stated as follows:

H2: There is a significant relationship between the foreign ownership and performance among the Jordanian companies.

3- Institutional Ownership

Institutional ownership dimension is related to a portion of equity owned by institutional investors. The choice of this dimension is lined with Fama (1980), Severin (2001) and Sarac (2002). They indicated that it must have a beneficial influence on performance. Shleifer and Vishny (1986) and Berger (2003) justify the expected relationship between institutional ownership and performance in two directions. Firstly, outside block owners are able to help mitigate problems of controlling managers. Secondly, large block shareholders may also improve the effectiveness of takeover mechanism by mitigating the free rider problem. Free rider problem is related to the lack of control by shareholders.

Wan (1999) found that institutional ownership is

positively, statistically, and significantly correlated with firm performance. Also, a relationship existed in Berger (2003) and Sarac (2002) studies but in a moderate statistic effect. Thus, hypothesis 3 is stated as follows:

H3: There is a significant relationship between the institutional ownership and performance among the Jordanian companies.

4- Management Ownership

The fourth ownership structure dimension in this study is management ownership. This dimension and the concentration dimension are related to the agency's problem, which creates a debate in the literature on the impact and merit of separation of ownership and control. In an environment where management is in control, managers can be expected to operate the firm in their own interest, while in an owner controlled environment; managers are expected to act in the interest of the firm's external owners.

Prior studies that considered the effect of non-owner managed and owner-managed firms on performance found confusing results. While many studies found a relationship between performance and management ownership (e.g. Severin, 2001; Kumar, 2003), other studies found that management ownership does not promote performance (e.g. Demsetz and Villalonga, 1999; Rowe and Davidson, 2002; Long and So, 2002). So hypothesis 4 is stated as follows:

H4: There is a significant relationship between the management ownership and performance among the Jordanian companies.

Control Variables:

To examine the impact of ownership structure on performance, it is assumed that the company's performance depends on a number of explanatory variables, as well as other ownership structure dimensions. Therefore, the estimated study models controlled a number of company characteristics that affects the company's performance. The

control variables used in this study are selected with reference to the most repeated in earlier empirical studies (e.g. Kumar, 2003; Berger, 2003; Nadia, 2004). The following provides a brief justification for control variables used in this study.

Size: firm size used extensively in prior literature as one of the explanatory variables for the fact that large firms may exhibit higher performance. This could be due to their higher ability to turnout to be more efficient as they are likely to exploit economies of scales, employ more skilled managers, ability to diversify their operation and targeting a large number of customers. Size variable is measured in this study by the natural logarithm of total asset. Then, the following hypothesis can be formulated:

H5: There is a significant relationship between the firm size and performance among the Jordanian companies.

Leverage ratio: capital structure is also able to impact performance through reducing free cash flow (Jensen, 1986; Severin, 2001). A firm's debt-to-equity ratio or leverage ratio affects corporation ability to borrow and the cost of borrowing, which affects profitability as a result of increasing the interest and financial obligations. Therefore, the following hypothesis is formulated as follows:

H6: There is a significant relationship between the firm leverage ratio and performance among the Jordanian companies.

Retained Earning: firms with higher concentration on equity (capital and retained earning) in their inputs will have better performance (Nerlove, 1968; Kumar, 2003). Retained earning intensity provides autonomy for corporate management from dependence on external capital and equity market, which enhances corporate performance. Therefore, hypothesis 7 is stated as follows:

H7: There is a significant relationship between the firm retained earning and performance among the Jordanian

companies.

Regression Models:

A linear multiple regression analysis is used to test the association between the dependent variable of performance and the independent variables of ownership structure and other control variables. There are three reasons for using linear multiple regression in this study. First, it is one of the most powerful statistical techniques in parametric tests (Bryman and Cramer, 2005). Second, the nature and measures of dependent and independent variables make such technique as the appropriate one. Third, similar prior literature used this statistical technique (e.g. Pinteris, 2002; Kumar, J. 2003; Berger, 2003; Jaafar and EL Shawa, 2009).

The following general model is estimated:

$$PERFOR_i = f(OWNER_i, Z) + e_i \quad (1)$$

Where PERFOR is the company performance, OWNER are variables of ownership structure, Z are company characteristics, and e is the error term. In this study, the error term is ignored since it is not used for making predictions (Bryman and Cramer, 2005). The general model in equation (1) is implemented by dividing the regression model into two detailed models as a result of using two different measures for performance variables (Return On Asset and Tobin's Q) as follows:

$$ROA_i = CONC_i + FORE_i + INST_i + MANG_i + SIZE_i + LEVR_i + RE_i + e_i \quad (2)$$

$$Tobin'sQ_i = CONC_i + FORE_i + INST_i + MANG_i + SIZE_i + LEVR_i + RE_i + e_i \quad (3)$$

Where ROA_i is return on asset ratio, $Tobin'sQ_i$ is Tobin's Q ratio, $CONC_i$ is concentration ownership, $FORE_i$ is foreign ownership, $INST_i$ is institutions' ownership, $MANG_i$ is management ownership, $SIZE_i$ is the company size, $LEVR_i$ is the leverage ratio, RE_i is retained earning, and e_i is the error term. Table (1) presents the study variables, definitions, and measurement of these variables.

Table 1. Definitions and Measurement of Study Variables

Variable	Definition	Measurement
Dependent Variable – Performance		
ROA	return on asset	Ratio of after tax net income to total assets
Tobin'sQ	Tobin's Q ratio	(Market value of equity + book value of debt)/(Total of assets in book value)
Independent Variables - Ownership Structure Dimensions		
CONC	concentration ownership	The ratio of total percentage of shareholdings by persons who have 10% or more of the issued shares of the company
FORE	foreign ownership	The ratio of total shares owed by foreign investors to the total company's shares
INST	institutions ownership	The ratio of total shares owed by holding companies to the total company's shares
MANG	management ownership	Dummy 1 is used when the general manager is a member on the board of directors, and 0 otherwise
Independent Variables - Control Variables		
SIZE	company size	The natural logarithm of total assets.
LEVR	leverage ratio	Total liabilities divided by shareholders equity.
RE	retained earning	retained earning.

FINDINGS

This section is divided into three sub-sections: sub-section 1 tests the empirical model assumptions. The descriptive statistics are presented in sub-section 2, while sub-section 3 deals with multiple regression results.

1) Testing Empirical Models:

Applying a multiple regression model requires meeting specific conditions and assumptions related to multicollinearity, linearity, independent error, sample size, and normality (Hair et al., 1998; Field, 2001; Bryman and Cramer, 2005).

Tables (4) to (7) in Appendix (2) show all the information related to multiple regression assumptions. The VIF and tolerance values presented in Table (4)

indicate that there is no multicollinearity problem since there is no VIF, values more than 10 and tolerance values below 0.1 (Field, 2001, p. 132). According to the casewise diagnostic in Table (5), there is only one case, more than 2 in Tobin's Q model and no other case exceed this limit in ROA model, which means that there is no linearity problem with the two models. The acceptable number of cases that may exceed limit 2 is around 3 (number of cases multiplied by 5%) (Field, 2001). In terms of testing the independent error assumption, Table (6) shows that the Durbin-Watson tests for two models are around 2, which means that the residuals are not correlated (Field, 2001, p. 137).

To test the sample size assumption, several rules of thumb have been proposed ranging from 4 to 15

observations per independent variable (Hair et al., 1998, p. 182). In this study, based on the number of independent variables, there are approximately 8 observations (cases) for each independent variable. Kurtosis test is considered to be a prominent measure of normality. According to hair et al. (2003, p. 244) the acceptable range of Kurtosis for data distributed normally is -3 to +3. Table (7) shows Kurtosis's measure for dependent and independent variables, which indicates that all these variables are within the acceptable range except retain earning variable at 3.3 edge limit.

2) Descriptive Statistics

One of the objectives of this study is to explore the patterns of ownership structure in the Jordanian manufacturing companies. Table (2) summarizes all ownership dimensions that are considered in this study. Concentration ownership dimension that measures the degree of dispersion among shareholders is measured by the ratio of total percentage of shareholdings owned by the persons who have 10% or more of the issued shares of the company. The direction of concentration ownership over five years was around 40% average which reflects relatively high concentration ownership compared with some western economies (e.g. US and United Kingdom).

The Foreign ownership dimension is also nearly constant at a moderate level of 14% average. This can be

justified by the relatively small size and modest performance. This conclusion can be estimated from the primary exploration of the data collected, that showed that 19 of the 56 manufacturing companies has negative average retained earning. This picture is different in the banking sector which has better performance and foreign investment that exceeded 50% (Nadia, 2004).

The percentage of equity beneficially owned by the institutional investors in this study was around 28% over five years and the numbers of companies in which the general manager is a member on the board of directors is ranged between 52% and 63% with an average of 56%. To justify why there is a large percentage of companies that do not have an independent board from directors (general manager), further data is collected about the percentage of equity owned by those managers. The results show that only 8 of 56 companies have managers who owned a relatively significant percentage of equity ranged between 6% and 30% in the last three years, which indicates that the manager is not a member of the board of directors because he owns a high equity percentage. This result agrees with Demsetz and Villalonga (1999) argument; they proved that a person who is a professional member of the management team hardly holds enough shares to make him one of the most important shareholders of a corporation. Therefore, such managers are mostly derived from high bulk owners.

Table 2. Ownership Structure Dimensions in the Jordanian Manufacturing Companies for the Period 2002 to 2006

Year	2006	2005	2004	2003	2002	Average
Concentration Ownership	42%	39%	39%	40%	40%	40%
Foreign Ownership	18%	13%	13%	14%	14%	14%
Institutions Ownership	29%	28%	28%	28%	29%	28%
Management Ownership	52%	52%	54%	63%	61%	56%

Regression Results

In equations 2 and 3, the ownership structure and other explanatory variables are included in the estimated models in order to examine their effects on manufacturing companies' profitability. The use of two models in this study is to test if producing different results in prior literature is a result of using different profitability measures.

Table (3) displays the result of multiple regression

models used to test hypotheses H1 – H7. It can be noted from the indications of R Square and Sig. F that the first model (Dep. Variable: ROA) is more explanatory and powerful than the second model (Dep. Variable: Tobin's Q), since independent variables in the first one are explained around 50% of the profitability at 0.000 significant level, while the Tobin's Q model explained only 23% of the profitability at 0.07 significant level.

Table 3. Multiple Regression Models

	Dep. Variable: ROA		Dep. Variable: Tobin's Q	
	t	Sig.	T	Sig.
(Constant)	0.883	0.381	0.818	0.418
Concentration Ownership	-2.279	0.027	-1.799	0.078
Foreign Ownership	-0.451	0.654	-0.156	0.877
Institutions Ownership	1.992	0.052	-0.547	0.587
Management Ownership	-0.246	0.807	-0.503	0.617
Company Size	-0.299	0.767	-0.109	0.913
Leverage Ratio	-3.096	0.003	1.636	0.108
Retained Earning	3.696	0.001	0.106	0.916
R	0.696		0.478	
R Square	0.484		0.229	
F	6.426		2.032	
Sig. F	0		0.07	

To justify this difference between the powerful two models, it is essential to know how Tobin's Q variable is measured. Measuring Tobin's Q variable depends on the market value of the company [(Market value of equity + book value of debt)/(Total of assets in book value)] and the market value was measured depending on the closing market price in the last 5 years (average of closing price * number of common shares), which presumed that the main determinant of market price is performance. However, the share market price is constrained by

investor acumen, optimism, or pessimism, and it does not necessarily reflect the company's performance. On the other hand, accounting profit measures, such as ROA, are not affected by the psychology of investors (Demsetz and Villalonga, 1999).

According to the ROA model, the results show that concentration ownership and institutional ownership are significant at 0.05 level related to profitability (ROA), the leverage ratio and retained earning variables are significant at 0.01 level related to ROA profitability

indicator. While the other ownership structure dimensions; foreign ownership and management ownership, and the size variable have no significant effect on ROA indicator.

The direction of the significant relationship with the concentrated ownership dimension is negative; profitability decreases with high concentration ownership or the profitability increases with increasing dispersion of ownership among shareholders. This result is in accordance with Demsetz (1983), who argued that diffuseness of firm's ownership structure plausibly serves the firm shareholders better than it would serve a concentrated ownership structure. Also, the negative relationship between leverage ratio and profitability is expected because increasing debt requires further borrowing costs that absorbs the company's profits.

The direction of the significant relationship with the institutions ownership is positive; profitability increases with a high portion of equity owned by institutional investors. This result is in agreement with the findings of Fama (1980), Shleifer and Vishny (1986), Sarac (2002), and Berger (2003), since a substantial block of institutional investors mitigates a problem of controlling managers and improves the effectiveness. Another positive relationship exists between retained earning and profitability. Such a relationship is predictable because retained earning reflects the company's ability to create profit and provides autonomy for corporate management from dependence on debt and equity market.

On the other hand, the Tobin's Q model shows that no significant relationship between all of the independent variables and Tobin's Q profitability indicator except a modest relationship with concentration ownership dimension at 0.10 level. The second model findings are consistent with Wan's (1999) argument which states that using different profitability measures would produce different results and relations

with the same ownership structures.

SUMMARY AND CONCLUSIONS

This study investigates whether ownership structure has significant effects on the financial performance of Jordanian manufacturing companies. Also, the study aimed to explore the patterns of ownership structure in the targeted companies. Multidimensional ownership structure is considered to highlight any evidence of the relationship between ownership structure and corporate performance. Also, two performance indicators are used (ROA and Tobin's Q) as dependent variables to capture features of each measure and the possibility of changing the results.

The findings revealed different results by using different performance measures. When ROA indicator is applied, the concentration ownership is negative and the institutional ownership is positive, statistically and significantly correlated with the company's performance. According to other company characteristics, the leverage ratio is negative and the retained earning is positively correlated with the company's performance. However, when Tobin's Q indicator is applied, the results show that no significant relationship between profitability and all ownership structure and other characteristics except a modest relationship with concentration ownership dimension.

According to the patterns of ownership structure in the Jordanian manufacturing companies, the findings show that these companies tend to be concentrated rather than diffused at 40% average over the last five years. But foreign ownership dimension is nearly constant at a moderate level of 14% average. Institutional ownership dimension in this study has been around 28% for over five years (2002-2006) and the numbers of companies in which the general manager is a member on the board of directors is ranged between 52% and 63% with an average of 56%.

The implications of these results can be aggregated as follows:

- The model that uses ROA as a dependent variable is more powerful and explanatory than the other model (Tobin's Q model), which provides strong implication to consider ROA model by the researcher. However, further research by using the same methodology is needed to confirm such conclusion or by using a different measure for Tobin's Q variable. In this study, no other measure can be used because information related to market value of corporate assets is not available.
- The study document that dispersion of ownership among shareholders (low concentration) is preferred and can increase corporate performance. Hence, applying corporate governance roles and changing regulations that

protect small investors are surely welcome.

- The institutional ownership (high portion of equity owned by institutional investors) has a positive effect on corporate performance. In this context, institutional ownership in Jordan could be more related to family business than independent institutional business. Therefore, a robust test of the relationship between institutional ownership, family business ownership, and corporate performance is postponed for future research.
- The study provides evidence that leverage ratio and retained earning variables reflect highly significant effect on corporate performance, which implies that the investors should consider the low debt and high accumulated prior profit indications in their investment decisions.

REFERENCES

- 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>.
- Berle, A. A. and Means, G. C. 1932. *The Modern Corporation and Private Property*. New York: Larcourt, Brace and World Inc., (Republished:1968).
- Bjuggren, P., Eklund, J. and Wiberg, D. 2007. Ownership Structure, Control and Firm Performance: The Effects of Vote-differentiated Shares. *Applied Financial Economics*, 17 (16): 1323-1334.
- Bryman, A. and Cramer, D. 2005. *Quantitative Data Analysis with SPSS 12 and 13: A Guide for Social Sciences*. London and New York: Routledge Taylor and Francis Group.
- Caves, E. 1996. *Multinational Enterprises and Economic Analysis*. 2th edition, Cambridge: Cambridge University Press.
- Chen, C. R. Guo, W. and Mande, V. 2003. Managerial Ownership and Firm Valuation: Evidence from Japanese Firms. *Pacific-Basin Finance Journal*, 11 (3): 267-283.
- Cho, M. 1998. Ownership Structure, Investment and the Corporate Value: An Empirical Analysis. *Journal of Financial Economics*, 47 (1): 103-121.
- Cole, R.A. and Mehran H. 1998. The Effect of Changes in Ownership Structure on Performance : Evidence from The Thrift Industry. *Journal of Financial Economics*, 50(3): 291-317.
- Demsetz, H. 1983. The Structure of Ownership and the Theory of the Firm. *Journal of Law and Economics*, 26 (2): 375-390.
- Demsetz, H. and Lehn, K. 1985. The Structure of Corporate Ownership : Causes and Consequences. *Journal of Political Economy*, 93(6): 1155-1177.
- Demsetz, H. and Villalonga, B. 1999. *Ownership Structure and Corporate Performance*, Working Paper,

- University of California.
- Demsetz, H. and Villalonga, B. 2001. Ownership Structure and Corporate Performance. *Journal of Corporate Finance*, 7 (3): 209-233.
- Fama, E.F. 1980. Agency Problem and The Theory of the Firm. *Journal of Political Economy*, 88(2): 288-307.
- Fama, E. and Jensen, M. 1983. Separation of Ownership and Control. *Journal of Law and Economics*, 26 (June): 301-325.
- Field, A. 2001. *Discovering Statistics Using SPSS for Windows, Advanced Techniques for The Beginner*. London: Sage.
- Fort, J.C. and Pagès, G. 1995. *About Kohonen algorithm : Strong or Weak Self Organization*. *Neural Networks*.
- Gedajlovic, E. and Shapiro, M. 2002. Ownership Structure and Firm Profitability in Japan. *Academy of Management Journal*, 45(2): 565-575.
- Habib, M. A. and Ljungqvist, A. P. 2005. Firm Value and Managerial Incentives: A Stochastic Frontier Approach. *Journal of Business*, 78 (6): 2053-2093.
- Hair, J., Anderson, R., Tatham, R. and Black, W. 1998. *Multivariate Data Analysis. 5th edition*. New Jersey: Upper Saddle River, Prentice-Hall International.
- Hair, J. F., Babin, B., Money, A. and Samouel, P. 2003. *Essentials of Business Research Methods*. New York: John Wiley and Sons.
- Himmelberg, D., Simar, L. and Paril, S. 1999. Understanding the Determinants of Managerial Ownership and the Link Between Ownership and Performance. *Journal of Financial Economics*, 53 (3): 353-384.
- Huafung, X. and Jianguo, Y. 2007. Ownership Structure, Board Composition and Corporate Voluntary Disclosure. *Management Auditing Journal*, 22 (6): 604-619.
- Jaafar, A. and El Shawa, M., 2009. Ownership Concentration, Board Characteristics and Performance: Evidence from Jordan. SSRN: <http://ssrn.com/abstract=1392727>
- Jensen, M. 1986. Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review Papers and Proceedings*, 76 (2): 323-329.
- Joh, S. 2002. *Control, Ownership and Firm Performance: The Case of Korea*. Working Paper, Corea Development Institute.
- Kole S.R. 1995. Measuring Managerial Equity Ownership : A Comparison of Sources of Ownership Data. *Journal of Corporate Finance*, 1 (3): 413-435.
- Kumar, J. 2003. *Does Ownership Structure Influence Firm Value? Evidence from India*. Working Paper, Indra Gandhi Institute of Development Research, India.
- Lang, L. and So, R. 2002. *Bank Ownership Structure and Economic Performance*. Working Paper, Chinese University of Hong Kong.
- McConnell, J. J. and Servaes, H. 1990. Additional Evidence on Equity Ownership and Corporate Value. *The Journal of Financial Economics* 27 (1): 595-612.
- McConnell, J.J. and Servaes, H. H. 1995. Equity Ownership and The Two Faces of Debt. *Journal of Financial Economics*, 39 (1): 131-157.
- Morck, R., Shleifer, A. and Vishny, R. 1988. Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20 (1988): 293-315.
- Nadia, T. 2004. *Ownership Structure, Board Characteristics and Firm Profitability*, Master Dissertation, Hashemite University, Jordan
- Nerlove, M. 1968. Factors Affecting Differences Among Rates of Return on Investment in Individual Common Stocks. *Review of Economic and Statistics*, 1 (3): 312-331.
- Patibandla, M. 2002. *Equity Pattern, Corporate Governance and Performance: A Study of Indian Corporate Sector*. Working Paper, Copenhagen Business School.
- Perrini, F., Rossi, G. and Rovetta, B. 2008. Does Ownership Structure Affect Performance? Evidence from the Italian Market. *Corporate Governance*, 16 (4): 312-325.

- Pinteris, G. 2002. *Ownership Structure, Board Characteristics and Performance of Argentine Banks*. Working Paper, University of Illinois.
- Rowe, W. and Davidson, W. 2002. *Endogeneity in Financial Performance and Board Composition: The Case of Closed-End Funds*. Working Paper, University of Nebraska.
- Sarac, M. 2002. *An Empirical Analysis of Corporate Ownership Structure in Turkish Manufacturing Sector*. Working Paper, Bogazici University, Istanbul.
- Sarkar, J. and Sarkar, S. 2000. Large Shareholder Activism in Corporate Governance in Developing Countries: Evidence From India. *International Review of Finance*, 1 (3): 161-194.
- Severin, E. 2001. Ownership Structure and The Performance of Firms: Evidence from France. *European Journal of Economic and Social Systems*, 15 (2): 85-107
- Shahid, S. 2003. *Does Ownership Structure Affect Firm Value? Evidence from the Egyptian Stock Market*. Working Paper, Cairo and Alexandria Stock Exchanges, Egypt.
- Shleifer, A. and Vishny, R. 1986. Large Shareholders and Corporate Control. *Journal of Political Economy*, 94 (3): 461-488.
- Short, H. and Keasey, K. 1999. Managerial Ownership and the Performance of Firms : Evidence from the UK. *Journal of Corporate Finance*, 5 (1): 79-101.
- Wan, K. 1999. *Do Ownership and Firm Performance Proxies Matter? An Empirical Study of The Relation of Ownership Structure and Firm*. Working paper, University of Texas-Dallas.
- Xu, X. and 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.
- Zhou, X. 2001. Understanding The Determinants of Managerial Ownership and The Link Between Ownership and Performance: Comment. *The Journal of Financial Economics* 62 (3): 559-571.

