Board Independence, Ownership Structure and Firm Performance: Evidence from Pakistan

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ABSTRACT

The present study carried out to examine the relationship between ownership structure, board independence and firm performance of eighty listed firms at KSE for the period of 2005-2009. Performance is evaluated with the help of market based and accounting based performance measures. Marris ratio and Tobin’s Q are used as estimators of market performance, while ROA, ROE has been used as accounting performance estimators. Percentage of shares held by CEO, directors, their spouses and children are used as proxy of Ownership structure. Percentage of independent directors on board and board size has been used as proxy for board independence. Size and leverage have been used as control variables. Common effect model has been applied as data analysis technique to test the significance of these relationships. The study found significant positive effect of board size on both market based and accounting based performance measures and significant negative effect of insider ownership on ROA, while board independence has significant positive impact on market based performance measures. The research is limited to the number of companies selected as sample and one dimension of ownership structure. Other dimension of ownership structure may have more influential and generalizable results. The study provides the valuable information regarding board size and managerial ownership that form a significant part of decision making of companies.

Keywords: Board independence; Ownership structure; Firm performance.

1. Introduction

Businesses are likely to have hierarchy of goals. However, the most important is finance objective. Businesses are incorporated with the objective of earning profit. Profit maximization is most commonly cited business goal. Investors invest in businesses with the intention of getting profit so; investor attraction is associated with business financial growth, strength and solvency. Corporation follows the separate entity principle. According to that business and owner are separate. Shareholders are owners of business who appoint directors to run the operations of company in their best interest so, control is delegated to directors. This relationship between stockholder and director is known as agency relation “The relation of trust”. The conflict of interest arises in this relation when manager start working to maximize their own effectiveness through the consumption of perks rather than working in the best interest of share holder so the value of firm effected. To resolve these issues and to make management operations effective corporate Governance is needed.

Corporate Governance is a framework by which organizations are directed and controlled. Its objective is to monitor the activities of directors who control the organization owned by stockholders. It is a system of allocating and distributing the rights and responsibilities among different participants in organization such as, board of directors, shareholders and...
managers and to improve corporate performance and accountability by creating value to shareholders.

The board of directors acts as part of internal governance system with the view to align the interest of shareholders and managers, and to remove discrepancies between them. The function of BOD is to reduce the agency cost that arises in result of conflicting interests of shareholders and managers (Barnhar and Rosenstein, 1998). Board comprises of inside and outside directors. There are different theories in literature about the effectiveness of inside and outside directors. Some has views that insider are more effective because they have more information about organization activities so they take decisions that are more effective for organizational financial health, while some other have supported the inclusion of outside directors on board because of their breadth of knowledge, expertise, controlling role (Farinha, 2003). Ownership structure, another important component of corporate governance, comprises of insider ownership, institutional ownership, foreign ownership, family ownership, concentration ownership, block holder ownership and bank equity ownership. According to agency theory the main categories of shareholders are managerial, institutional and financial shareholders. Researchers also have different views about managerial ownership in line with board independence. According to Jensen and Meckling (1976) and Demsetz (1983) due to increase in insider ownership convergence of interest arises. However Stulz (1988) argued that it can result in managerial entrenchment and self serving behavior, hence affect the performance of firm.

1.1 Significance of the Study

Manager’s decisions significantly impact the value of organization. Their decisions have two-fold effect. It can result in maximizing the value of firm if these decisions are in interest of share holders or it might result in poor organizational performance if these are in the self interest of managers. Researchers have different views about managerial stake in organization. Managers having more stock in organization might enforce them take decisions that are in their best interest to increase their wealth, job tenure and enhancing their value and reputation. A situation of conflict is arises in result of these decisions. To resolve these issues corporate governance is needed to ensure that all activities are properly managed and decisions are effectively made by managers to enhance the value of shareholder wealth, so the value of firm. One of the important mechanisms of corporate finance to deal with above issue is board of directors that are hired to monitor the decisions of management and to ensure these are in the best interest of shareholders. This job performed by BOD increases the firm value (Hennesay, 2005). Managers perform those activities that are concerned with fulfillment of their own goals on the investment of shareholders. It may lead towards inefficient utilization of free cash flows (Shleifer, & Vishny, 1989).

Corporate Governance plays an important role in governing organizations. It is generally assumed that good corporate governance is essential for good corporate performance. The purpose of study is to analyze empirically the impact of board independence and ownership structure on performance of firms particularly with reference to Pakistan. This study will provide an insight about board independence, board size and ownership structure and will investigate their impact on firm performance. The study mainly focused on managerial shareholders who are having direct involvement in organization decision making to testify the entrenchment hypothesis.

1.2 Statement of the Problem

The process of structural and reform changes has been started in Pakistan since 1991. These changes in financial regulations influenced the capital structure, risk premia and compliance to corporate governance. In 2002 a target has been assigned to Securities and Exchange Commission of Pakistan (SECP) for establishment of good corporate governance structure in Pakistan for all listed companies, whereby BOD act as controlling and monitoring devices in line with best governance practices to achieve the objective of shareholder interest protection. It was the first time these rules were provided for corporate sector. It was expected that with the implementation of these reforms corporate performance will increase (Mir and Nishat, 2004). Its new area and is its initial
phase of implementation so performance evaluation studies need to be conducted from time to time to investigate its impact. Some studies have already been conducted in this area but there focus was some different variables and they have used different data analysis techniques and models. However, there is still need to conduct more studies in this area with increased sample size and more advanced analytical techniques to investigate whether the proportion of outside directors on board, Board Size and Insider ownership has significant impact on performance of firm. The purpose of this study is to investigate this issue in Pakistani context. This study will focus on both market and accounting based performance measures and will make contribution in existing literature by exploring this area.

1.3 Objective of the study

1. To investigate the impact of board independence, board size and insider ownership on Firm performance.
2. To identify what’s the average percentage of managerial ownership, independent directors in organization and to identify are they having any relationship with firm performance

2. Literature Review

Corporate governance is a framework to direct, administer and control the business activities of the company to achieve the objective of shareholder wealth maximization in accordance with enhancing business wealth and corporate responsibility (Keasey, Thompson, & Wright., 1997). Parum (2005, p.702) defined corporate governance as "A set of principles concerning the governing of companies and how these principles are disclosed or communicated externally".

According to the legislative and regulatory framework, it’s a structure. According to that Annual General Meeting (AGM) is called to set the objectives of all governing authorities, who are responsible to monitor management activities. The BOD is one of them (Bahaa El Din and Shawky, 2005).

The board of directors works for shareholders in their best interest through their monitoring and controlling activities (Fama and Jensen, 1983). The board is authorized by law for sanction, monitoring and evaluation of managerial commencement and performance respectively.

2.1 Board Independence

Board composition is an important element of board characteristic. Board composition structure varies from organization to organization. Most corporate boards are composed by the inclusion of some top managers of the firm's as well as directors from outside the firm, the combination of inside and outside directors. The inside director are the part of organization so they are more informed about organizational activities and provide valuable information, while outside directors performs controlling role in evaluating managers decisions through their skills, knowledge expertise and objectivity to reduce the agency cost and safe the shareholders interest (Farinha, 2003). The presence of outside director on board improves the practicability of board (Ghosh, 2006) and firm performance (Adams & Mehran, 2003).

The entrance of outside directors on board is attributed as board independence. Board independence is one of the significant determinants of board effectiveness. People outside the firm other than current or past employees of organization are supposed to be independent directors and are representatives of shareholder interest (Hermalin & Weisbach, 1988). Outside directors having no attachment with organization might be true representatives of shareholders interest (Dobrzynski, 1991).

The existence of outside directors on board is likely to trim down the managerial utilization of perks. Outside directors are more likely to join the company after its declining period when there is severe need of outside guidance and assistance for strategy modification (Hermalin and Weisbach, 1988). Outside director’s selection on board escort to momentous, constructive, share price reactions (Rosentein and Wyatt, 1990).

2.2 Board size

There are different views about board size in literature. According to Lipton and Lorch (1992); Jensen (1993); and Hermalin and Weisbach (2003) the board size should be limited to 7 or 8 because large boards are less effective and difficult for CEO to control. Large boards are detrimental because they give birth to free riding issues (Hermalin and Weisbach, 2003) and also create hurdles in coordinating activities (Jensen, 1993). Another disadvantage of large board is large time span is required to take decisions, and its lack board cohesiveness (Lipton and Lorch, 1992). Opposite to that some researchers are in favor of large boards. Large boards are more diversified, provide blend of expertise, knowledge and skills. They are having the advantage of getting expert opinions and advice that small boards lack (Dalton and Dalton, 2005).

2.2.1 Board size and firm performance

These arguments by different researchers are empirically tested and reported different results. Yermack (1996) conducted a study to find out a relationship between large board size and firm performance. He selected 452 U.S industrial corporations as sample for the period of 1984-1991, and applied a number of models; fixed effects, random effects and OLS estimates to test the relation. Tobin's Q, ROA, ROS and sales to asset ratios were used as performance measure and negative association is found between these variables. Yermack (1996) results were consistent with Lipton and Lorch (1992) and Jensen (1993). His findings are further supported by Eisenberg, Sundgren and Wells (1998) and Barnhart and Rosenstein (1998).

In contrast to these studies Bhagat and Black (2002) and Abdelsalam, Masry and Elsegini (2008) analyzed that firm performance is not affected by board size. Bennedsen, Kongsted and Nielsen (2004) concluded that his results are consistent with Bhagat and Black (2002) for board size below or equal to six. However, with increasing the no of directors on board, more than 6, negative associations is found between two. Abor and Biekpe (2007) also support these findings. Bonn, Yokishawa and Phan (2004) keeping in view the above idea, further supported the results. They conducted a comparative study between Japanese and Australian firms and used another variable to evaluate performance (Book to market value ratio). The study found negative association for Japanese firms between these two variables. However, for same variables no relationship is found for Australian firm.

A positive relationship is also reported in many studies between these two variables. Mak and Li (2001) conducted a study in Singaporean environment by taking a sample of 147 firms for the period of 1995 and found a positive relationship between board size and performance of firms. Adams and Mehran (2003) conducted a similar study in U.S financial sector measure the firm performance by Tobin’s Q and fond the similar result as Mak and Li (2001). Dalton and Dalton (2005) performed a Meta analysis based on 131 studies and found a positive correlation between large boards and firm performance.

2.3 Managerial ownership

The relationship between ownership structure and firm performance an important issue, make considerable importance in the world of research. The inspiration to explore this area has been started from the separation of ownership and control (Berle and Means, 1932). The conflict of interest arises in result of this separation that adversely affects the performance of firms. Jensen and Meckling (1976) argued that this conflict can be resolved by increasing the manager's stake in organization. This will result in
convergence of interest between managers and shareholders, so act to increase the value of firm. However, Stulz (1988) give his argument that increase in managerial ownership might encourage the managers to take decisions in their self best interest, known as entrenchment effect. In the presence of self serving behavior negative association is expected between managerial ownership and firm value.

2.3.1 Managerial ownership and firm performance

Previous studies in this area have mixed results. Some researcher supports the presence of these effects in their studies

Morck, Shleifer, and Vishny (1988), in their study applied piece wise regression to find out presence of these effects. They found that managers having stake between 0 and 5% make decisions that are in the interest of both. However, as ownership stake increases from 5% and it lies between 5% and 25%, influences the managerial decisions and leads them towards entrenchment. McConnell and Servaes (1990) also conducted the curvilinear relationship working on same lines. He used Tobin’s Q as performance measures and evaluate the performance for the period of 1976-1986 by taking into account all dimension of ownership structure; insider, individuals, block holders, and institutional ownership investors. Hermalin and Weisbach (1991) found the same result in his study, conducted on 134 listed firms of NYSE. In addition to Tobin’s Q, ROA was also used to measure performance. These results are obtained without controlling certain factor firm size, leverage and dividend that might have different effect.

Lasfer and Faccio (1999) results were also consistent with these studies. Holderness et al. (1999) studied the same dimensions as Morck et al. (1989) found contradicting result to that. He did not find entrenchment effect for managerial shareholding above 5% and its negative association with firm performance as compared to Morck et al. (1989). Mir and Nishat (2004); Farooque, Zilj, Dunstan and Karim (2007) and Shah, Butt and Saeed (2011) studied the ownership structure as endogenous variable and found negative relationship between them.

Some other studies reported managerial ownership does not affect firm performance (Cho, 1998; Himmelberg, Hubbard and Palia., 1999; Demsetz and Villalonga, 2001; Seifert et. al., 2005; and Brick, Palia and Wang, 2005). Himmelberg et al. (1999) studied the same relationship by adding some new variables, using panel data and applying fixed affect model. He found negative association between insider ownership and capital-to-sales ratio. However, positive relationship is found for managerial ownership and advertising-to-sales ratio and operating profit margin. He filled the gap of previous studies by using the control variables and found changes in ownership structure are not significantly related to firm performance. Cho (1998) found the same results by using cross section data and considering ownership structure as dependent variable. Demsetz and Villalonga (2001) also considering ownership structure as endogenous variable and using 2-stage least square found insignificant relationship between them.

Kaserer, & Moldenhauer (2005) examined significant positive relationship between them by taking the sample of 245 German firms. Abor and Biekpe (2007) also found the same relationship. Welch (2003) investigated this relationship in Australian listed firms and regress the ownership structure as both endogenous and exogenous variable and concluded that relationship is significant if ownership is considered as exogenous variable. As endogenous variable no relationship is found between them.

From the above literature it is analyzed in most studies positive association is found between board independence, board size and firm performance; however some studies found no relationship between these variables. Some are in the favor of large boards and inside directors. Similarly studies about ownership structure have also produced different results. Some found significant positive relationship between them, some found negative relationship, and also curvilinear relationship and no relationship are also reported by some studies. These studies conducted in different environment provided different result. This study will examine this relationship in Pakistani environment to investigate what type of relationship exists in Pakistan.
3. Methodology

3.1 Data
For the purpose of study 80 non financial companies are selected from the population of all firms listed at Karachi Stock Exchange (KSE) for the period of 2005-2009. These firms are selected from different industrial sector of Pakistan (Sugar, Textile, Engineering, Cement, tobacco, Oil and gas, Chemical and Others). At first 100 companies were selected for sample but due to non availability of data for all years and all selected variables 20 are excluded. The study only focused on non financial companies and ignores the financial sector because of its different capital structure regulated at substantial level by SECP and SBP. Data is collected from published annual reports, KSE and State Bank of Pakistan (SBP) databases.

3.2 Variables
In this study, Performance is studied as endogenous variable. Firm performance is subdivided in two categories. Market based performance and accounting based performance measures. Market performance is evaluated with the help of Tobin's Q and Marris ratio while for accounting performance ROA and ROE is used.

3.2.1 Tobin's Q
Tobin's q an important performance indicator used in no of studies of corporate governance as performance evaluation measure (Himmelberg et.al., 1999; Faccio and Lasfer, 1999; Demsetz and Villalonga, 2001; Claessens., Djankov., and Lang, 2002; Cronqvist and Nilsson, 2003). Tobin's Q developed by James Tobin in 1969 is defined as ratio of market value of firm asset to replacement cost of these assets. However, Lindenberg and Ross (1981) argued that it is very difficult to calculate the accurate value of both nominator and denominator of Tobin's Q so to make the result of Tobin’s Q meaningful its accurate measure is necessary. Lang and Litzenberger (1989) elucidated the Tobin’s Q as growth measure. A high value of Tobin’s Q indicates that the firm has good growth opportunities (Cronqvist and Nilsson, 2003).This study uses the same formula for its calculation as used by previous researchers.

Tobin’s Q= (Market value of equity + book value of debit)/book value of assets

Its value greater than 1 is indication of growth. Below 1 shows growth opportunities are not there.

3.2.2 Marris Ratio
It’s a long term performance measure also called market to book value (MBV). It measures the current value of shareholders past investments. The higher this ratio is indicating that company has high potential of making profit and creating value for its shareholders. It’s simple and accurate measure of shareholder investment (Fama and French, 1992). This study also uses this measure for performance evaluation. It’s calculated as:

Marris Ratio= Market value of equity/book value of equity

3.2.3 Return on Equity and Return on Asset
ROE an accounting performance measure explain how much a company earns on investments made by shareholders fund. It did not take into account the amount earned on borrowed funds. It ignores the earning on levered fund .This gap is filled by using ROA ratio. Its profit earned on each unit of asset utilized. Pervious researcher also used these ratios as performance measures in their studies (Abdelsalam, Masry &Elsegini., 2008; Adams & Mehran, 2003). They calculated them as:

ROA = Net income/Total assets –book value
ROE =Net income/ Total share holder equity- book value

Exogenous variables are Percentage of independent directors (IND), board size (BS) and insider ownership (IOWN). IND is measured as proportion of Independent director to total number of directors on board (Abdelsalam, Masry &Elsegini, 2008) where board
size is measured by taking natural log of total directors on board. Insider ownership is measured as

Insider Ownership = No of shares held by directors, CEO and their spouse and minor children / total number of shares outstanding (Morck, Shleifer and Vishny, 1988).

3.2.4 Control variables

Size and leverage studied as control variables in this study, has also been studied as control variables in number of other studies (Morck et al., 1988; McConnell and Servaes, 1990; and Cho, 1998). Size is calculated by taking the natural log of total assets. Both positive and negative association of size with performance has remained the part of discussion in literature. According to Claessens et al (2002) size has positive impact on firm performance by increasing their trading liquidity and having vast network of opportunities. Morck et al (2002) argue that firms with large asset base might having the less growth opportunities. Leverage is defined as ratio of book value of total debt to book value of total assets. According to Stiglitz (1985) leverage is positively associated with firm performance. It brings motivation in managers to make efficient utilization of resources to meet the obligations of debt repayment and interest. These obligations restrict the mangers from inefficient utilization of free cash flows by decreasing the amount available as free cash flow through its utilization in debt repayment (Jensen, 1986). However, emphasized that repayment puts pressure on managers and make the cause for them not to invest in profitable project.

3.3 Model

The data used in this study is panel data, having the characteristics of both cross sectional and time series. Panel data is used to control heteroscedasticity in data and to provide more reliable estimates of coefficients. A panel regression model is used in this study by pooling the data of 80 firms over 5 year period to get 400 observations of each variable. Its equation is differentiated from simple cross sectional or time series equation by adding the subscripts (i,t) with each variable. The panel regression model of this study is

\[
\text{Tobin}'Q_{it} = \alpha_i + \beta_1 (\text{BDI})_{it} + \beta_2 (\text{BS})_{it} + \beta_3 (\text{IOWN})_{it} + \beta_4 (\text{Size})_{it} + \beta_5 (\text{Lev})_{it} + \mu_{it}
\]

\[
\text{Marris}_{it} = \alpha_i + \beta_1 (\text{BDI})_{it} + \beta_2 (\text{BS})_{it} + \beta_3 (\text{IOWN})_{it} + \beta_4 (\text{Size})_{it} + \beta_5 (\text{Lev})_{it} + \mu_{it}
\]

\[
\text{ROE}_{it} = \alpha_i + \beta_1 (\text{BDI})_{it} + \beta_2 (\text{BS})_{it} + \beta_3 (\text{IOWN})_{it} + \beta_4 (\text{Size})_{it} + \beta_5 (\text{Lev})_{it} + \mu_{it}
\]

\[
\text{ROA}_{it} = \alpha_i + \beta_1 (\text{BDI})_{it} + \beta_2 (\text{BS})_{it} + \beta_3 (\text{IOWN})_{it} + \beta_4 (\text{Size})_{it} + \beta_5 (\text{Lev})_{it} + \mu_{it}
\]

Where BDI is proportion of independent director on board, BS is board size, IOWN is proportion of insider ownership, lev is leverage and \(\mu_{it}\) is error term.

3.4 Hypothesis

The following hypothesis have been developed on the basis of above discussion

H1: Ownership structure affects the firm performance

H2: Board size affects the firm performance

H3: Proportion of independent directors on board effects the firm performance

3.5 Data Analysis Technique

Common effect model has been applied to test the significance of these relationships. Cross sectional and time series data has been changed into pooled data by combining both features. Common effect, Fixed effect and Random effect model has been applied on data. To decide which model is best HUSMAN's test has been applied. After the completion of whole procedure on the basis of \(\chi^2\) it is decided that Common Effects Model is best for this study.

4. Data Analysis and Discussion

OLS regression is applied on pooled data as data analysis technique in order to find out relationship between Board independence, Ownership structure and firm performance. Percentage of independent directors, board size and insider ownership are regressed with all performance indicators; ROA, ROE, Tobin's Q and Marris Ratio.
Table 4.1 presents the descriptive statistics of all variables included in the study as dependent, independent, or control. The average mean, S.D., min, and max values of all variables are given in the table. From above results, it is analyzed that average shares held by insiders is 14 percent, which is consistent with average mean values reported by previous studies (Morck, Schleifer, and Vishney (1988); McConnell and Servaes, 1990; Hermalim and Weisbach, 1991; Cho, 1998; and Lasfer and Faccio, 1999). This percentage lies between 5%-25%, which is consistent with previous studies, which indicates that an increase in managerial ownership leads towards entrenchment effect. Managers' decisions in self-interest result in high agency cost, hence low firm performance (Stulz, 1988).

Average board size is 2.13, from whom 56 percent are independent directors. This high percentage of outside directors is evidence of the fact that independent directors are needed at board for effective monitoring and to resolve the agency problem that arises in result of managers' self-benefiting decisions, excessive use of perks at the expense of shareholders. Board size has an average mean of 2.13, which is equal to 7. As board size has been measured by taking the natural log of total directors on board, 7 is found to be an average board size. This is consistent with previous studies (Jensen, 1993; Lipton and Lorch, 1992; and Hermalim and Weisbach, 2003) who defined that the board size should be limited to 7 or 8. Company performance measures ROA and ROE are having average of 13% and 16%, which are not indicating good performance on average. However, Tobin's Q average value is 1.59, which is greater than 1, indicating the indication of growth opportunities. This Tobin's Q average is similar to previous studies; as 1.1 and 1.51 reported by Demsetz and Villalonga (2001) and Faccio and Lasfer (1999), respectively. Size variable measure by taking the natural log of total assets has an average of 8.66 and leverage used as control variables have the mean of 2.07.

Table 4.2&4.3 presents the regression results of all variables included in the study. All performance indicators ROA, ROE, Tobin's Q and Marrias ratio are all separately regressed with a set of independent and control variables (Insider ownership, independent directors, and board size, size, and leverage).

A negative significant relationship is found between the percentage of share held by directors, CEO, their spouses, and children and ROA. However, this relationship is statistically significant only with ROA at 1% level of significance. This negative association is evidence of entrenchment hypothesis. These results are consistent with Nishat and Mir (2004); Farooque, Zilj, Dunstan, and Karim (2007) and Shah, Butt, and Saeed (2011). However, other performance indicators show ownership structure does not affect firm performance, these results are significant as (Cho, 1998; Himmelberg et al., 1999; Demsetz and Villalonga, 2001; Seifert et al., 2005; and Brick, Palia, and Wang, 2005).

Percentage of independent director on board is positively associated with Tobin's Q and Marrias ratio which are statistically significant at 1% level of significance. These results are in line with Fama & Jensen, 1983; Gompers, Ishii, & Metrick, 2003; Agrawal & Chadha, 2005; Abor and Biekepe, 2007). It means higher the percentage of independent directors on board, the better for firm performance. Performance of a firm increases by the inclusion of outside directors. This is the evidence that outside directors are performing their monitoring jobs effectively, decreasing the agency cost and safeguarding the shareholders' interest (Farinha, 2003). However, no association is found with accounting measures. These results are consistent with (Fosberg, 1989; Hermalim and Weisbach, 1991; Bhagat and Black, 2002; and Abdelsalam, Masry, and Elsegini, 2008). Board size and all performance indicators (ROA, ROE, Tobin's Q and Marrias Ratio) are positively related and this relationship is significant at 1% level of significance. These findings are consistent with Jensen (1993); Lipton and Lorch (1992) and Hermalim and Weisbach (2003); Yermack (1996); Eisenberg, Sundgren, and Wells (1998) and Barnhart and Rosenstein (1998).

Size is significantly positively related with ROE at 1% level of significance. The positive relationship between size and ROE is a good sign, showing that as company increases its total assets, ROE increases. The company is utilizing assets effectively and is having potential to create value for its shareholders. These results are consistent with Claessens et al., (2002). Leverage is showing negative association with all other
performance measures except Marris ratio. These results are consistent with Nishat and Mir (2004) and Brick, Palia and Wang (2005). From the results it is analyzed that leverage is not playing any role in motivating the managers towards the effective utilization of resources. Debt is not creating any value for organization might be due to high interest and repayment cost. The reason can also be the ineffective utilization of these free cashflows by managers in attainment of their self interests. The company debt cost also has an effect on shareholder return. By getting more debt financial risk of shareholder increases so increases the required return of shareholders as discussed by Modigillani and Miller in Proposition II. A positive association of leverage with Marris ratio also justifies this. It indicates that shareholder required high return due to risk associated with debt. By taking these decisions conflict of interest arises between managers and shareholders, agency cost increase and effect the overall value of firm negatively. The another reason of this negative relation can be that managers are not investing in profitable projects due to huge debt repayments plus interest cost associated with it. F-value shows the fitness of model. For all models it is less than 0.05, which shows that model is fit at 1% level for all performance indicators. The value of R² in all models is not up to mark except the model with ROE. it shows that the explanatory power of models with ROA, Tobin’s Q and Marris ratio is very low. Result shows that 18.16% variation has been explained in ROA, 11.3% in Tobin’s Q, 21.25% in Marris ratio and 89% in ROE due to variables. Explainatory power of the model with ROE has increased by the inclusion of Control variables.

5. Conclusion

The present study conducted with aim to investigate the impact of Board independence and ownership structure on firm performance of eighty listed firms in KSE. Performance is measured in terms of ROA, ROE, Tobin’s Q and Marris ratio. Independent variable board independence is measured by taking the proportion of independent directors on board and board size, while to measure the ownership structure managerial ownership is emphasized. Common effect model has been applied to test the significance of these relations. From overall results it is analyzed that negative association of managerial ownership with performance is best explained by ROA. Negative association between managerial ownership and accounting performance indicator is sign of conflict of interest between managers and shareholders and provide evidence of entrenchment effect. However, with all other performance indicators no association is found so the research hypothesis is rejected that ownership structure affects the firm performance. Percentage of independent directors on board is positively and significantly related with market based performance measures. However no significant relationship is found between proportion of independent directors on board and accounting based measures. These results are also in line with previous researchers and support the hypothesis that there is positive association between board independence and firm performance. Board size is positively significantly associated with both accounting and market based performance measures and supports the hypothesis strongly.
References


Annexure

Statistics | N | Mean | S.D | Min | Max |
---|---|---|---|---|---|
ROA | 400 | 0.131518 | 0.117881 | -0.19178 | 0.837124 |
ROE | 400 | 0.168638 | 1.16504 | -26.1543 | 11.28596 |
Tobin’s Q | 400 | 1.59886 | 1.14849 | 0.329984 | 8.729038 |
Marris | 400 | 2.450672 | 3.553542 | -3.08038 | 25.88071 |
IOWN | 400 | 0.142855 | 0.226911 | 0.000 | 1.0823 |
IND | 400 | 0.561039 | 0.276397 | 0.000 | 1.00 |
Board Size | 400 | 2.136093 | 0.206598 | 1.94591 | 2.70805 |
Size | 400 | 8.66862 | 1.333666 | 5.676411 | 12.0895 |
Leverage | 400 | 2.072148 | 11.06181 | -67.7877 | 175.6114 |

Table 4.1: Descriptive Statistic

N= Number of observations
IOWN= % of insider ownership
IND= % of independent directors

Dependent Variables

<table>
<thead>
<tr>
<th>ROA</th>
<th>COEFFICIENT</th>
<th>t-value</th>
<th>P-value</th>
<th>ROE</th>
<th>COEFFICIENT</th>
<th>t-value</th>
<th>P-value</th>
</tr>
</thead>
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<tr>
<td>Intercept</td>
<td>-0.3253516</td>
<td>-4.65**</td>
<td>0.000</td>
<td>-0.81698</td>
<td>-2.28**</td>
<td>0.023</td>
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<tr>
<td>IOWN</td>
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<td>-3.3**</td>
<td>0.001</td>
<td>-0.22511</td>
<td>-1.64</td>
<td>0.102</td>
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<tr>
<td>IND</td>
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<td>0.281</td>
<td>-0.20518</td>
<td>-1.81</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Board size</td>
<td>0.1921036</td>
<td>6.46**</td>
<td>0.000</td>
<td>0.371372</td>
<td>2.44**</td>
<td>0.015</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.0054251</td>
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<td>0.239</td>
<td>0.072564</td>
<td>3.08**</td>
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<td>-0.0006095</td>
<td>-1.13</td>
<td>0.261</td>
<td>-0.13967</td>
<td>-50.38**</td>
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<td>R squar</td>
<td>0.1816</td>
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<td>0.8904</td>
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<tr>
<td>F-value</td>
<td>0.0000**</td>
<td></td>
<td></td>
<td>0.0000**</td>
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</tr>
</tbody>
</table>

Table 4.2: Regression Results of Common Effect Model

**significant at 1%
* significant at 5%
# Table 4.3: Regression Results of Common Effect Model

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Tobin’s Q</th>
<th>Marris Ratio</th>
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<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>t-value</td>
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<tr>
<td><strong>intercept</strong></td>
<td>-1.66258</td>
<td>-2.34**</td>
</tr>
<tr>
<td><strong>IOWN</strong></td>
<td>-0.3749</td>
<td>-1.38</td>
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<tr>
<td><strong>IND</strong></td>
<td>0.719027</td>
<td>3.21**</td>
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<tr>
<td><strong>Board size</strong></td>
<td>1.376692</td>
<td>4.57**</td>
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<tr>
<td><strong>Size</strong></td>
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<td>-0.07</td>
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<td><strong>Leverage</strong></td>
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<td>-0.24</td>
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<tr>
<td><strong>R^2</strong></td>
<td>0.113</td>
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</tr>
<tr>
<td><strong>F-value</strong></td>
<td>0.000**</td>
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</tr>
</tbody>
</table>

**significant at 1%**  
* significant at 5%