INVESTIGATING THE STOCHASTIC RELATIONSHIP BETWEEN OWNERSHIP AND FIRM FINANCIAL PERFORMANCE: AN EVIDENCE FROM LISTED PSX (PAKISTAN STOCK EXCHANGE) SUGAR COMPANIES OF PAKISTAN

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ABSTRACT

The objective of the study is to investigate the stochastic relationship between ownership and firm financial performance. To achieve an objective, the panel data for the period of 9 years have been collected of the top 10 sugar producing companies listed on Pakistan Stock Exchange (PSX). The data extracted from annual financial statements and reports of sugar companies. The total 90 observations have been taken to conduct this study after total panel observations adjusted. In addition, some companies have been excluded on the basis of non-availability of data in order to ensure sufficiency of data. Total seven variables have been applied in this study, four independent variable (i.e. Board Size, Board Independent Directors, Board Audit Committee, and Owners Equity) and three dependent variables (i.e. Return on Assets (ROA), Return on Equity (ROE) and Earnings Per Share (EPS)). The study concluded and explained the significance of ownership with financial position and it showed that the sugar Industry has good financial performance on the basis of results. In addition, corporate governance is considered as one of the extensively studied subject and helps in mitigating the divergence of interests among managers and investors. Board size shows negative association with return on assets as Board sizes decreases return on assets increases and vice versa. Furthermore, independent director & audit committee have positive relation with the earning per share. 

Keywords: Board Size, Corporate governance, Financial Performance, Independent Directors

Jel Classification: B21, D2, G3, L2.

*The material presented by the author does not necessarily portray the view point of the editors and the management of the Ilma University – Formerly IBT

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Main Ibrahim Hydri Road, Korangi Creek, Karachi-75190, Pakistan
1. INTRODUCTION

Corporate governance is extensively studied subject and helps in mitigating the divergence of interests among managers and investors. Primarily, corporate governance purpose is to guard wealth owners from the unscrupulous activities of administration and safeguard the interests of shareholders and stakeholders (Rouf, 2011). Moreover, corporate governance gives rights to the directors to make useful decisions in the wellbeing of shareholders to achieve firm’s objectives (Shleifer and Vishny, 1997). And evidently it is revealed that firms with superior corporate governance improved their operating performance in concentrated ownership firms (Irina and Nadezhda, 2009).

In relation to the above, ownership structure is one of the widely utilized corporate governance mechanism and this has gained lot of attention from various scholars and analysts. Moreover, the company’s investors have become gradually more enthusiastic to employ their ownership rights to force managers to take steps in the best interests of shareholder. And evidence confirmed that there is significant positive relationship between companies investors involvement in firm operating cash flow returns which is denoted by ROA (Return on Assets). Meanwhile, the number of Company’s investors holding stock, seats on the board and percent of board of directors comprised of institutional investors had correlations on the financial performance of the firms (Cornett, Marcus, Saunders &Tehranian, 2007)). It is further evident that there is association among board ownership and the financial performance of Bangladesh firms and it is being observed as exogenous and endogenous. Whereas, this asks for to investigate parity and disparity between the ownership and financial performance of local firms and comparisons made with developed economies gave mixed results and indicates that there is significant role of corporate governance in improving corporate performances (Farooque, Zijl, Dunstan and Karim, 2007).

1.1 Background of the Study

The sugar Industry of Pakistan is the second major agro-based industry aftermath textile industry of Pakistan. Pakistan has significant place in the cane producing countries around the globe. It holds 6th place in the cane production and fifteenth in sugar production. And it has strongest Industry by having installed capacity around six million tons of sugar production yearly. Since last three years the industry faced record crisis around the country. This crisis has negatively affected various determinants including raw material suppliers, employees and the owners of company. However, this compelled to the owners to make right composition of directors and hold maximum control of company by investing maximum wealth as a shareholder so they may retain power of making effective decision to maximize wealth of all stake holders and minimize risks and associated costs of production.

1.2 Hypotheses

Ho: There is no significant relationship between Board size & Return on Assets
Ho: There is no significant relationship between Independent Directors & Return on Assets
Ho: There is no significant relationship between Board Audit Committee & Return on Assets
Ho: There is no significant relationship between Return on equity & Return on Assets
Ho: There is no significant relationship between Board size & Return on Equity
Ho: There is no significant relationship between Independent Directors & Return on Equity
Ho: There is no significant relationship between Board Audit Committee & Return on Equity
Ho: There is no significant relationship between Return on equity & Return on Equity
1.3 Problem Statement

Sugar Industry of Pakistan is facing issues related to factors of production i.e. raw materials supplies, delay in payment of employees and volatility of shareholders equity has created an impact on financial performance of Industry. In such situation, owners and composition of board of directors has significance in the decision making to improve financial performance. Therefore, it is important to investigate to what extent owners have impact and its relationship with financial performance.

1.4 Objective of Study

The objective of the study is to investigate the stochastic relationship between ownership and firm financial performance.

1.5 Scope of the Study

Many researcher and scholar have already studied on the sugar industry of Pakistan and explained their insight which is in due course relative to this detailed study. Through distinctive research papers and articles by means of different research journal websites and multiple sources data has been collected. Data collection method is being explained in which tells that in what method the data is collected for the study, illustrated data collection method, which sampling technique has been chosen, what are the tools used for data gathering and sample size analysis model.

2. LITERATURE REVIEW

Rapid amalgamation of marketplace around the globe, significance of corporate governance performing in promising financial system is gradually more apparent to domestic as well as to the global organizations. To draw the stable surge of foreign capital towards these economies, there may be growing international marketplace coerce on financial system to diminish risk to capitalist and reduced the cost of investment (world financial1999). Enhanced governance can strengthen trust of investor and meet the expectations and considerably decrease the waste and improper allocation of assets. From the perspective of shareholders being the enduring applicant of the company, company governance point out to mechanisms through which supplier of money have power over managers which ensure the maximize profits on their investments (Shleifer and Vishny 1997). These formal procedures vary among countries, specifically between advanced as well as with growing financial states. Growing marketplaces oscillate largely from developed financial systems, dogmatic and permissible environments (Prowse 1999). Pakistan is promising marketplace and financial system ruthless for monetary boom. Over the last few years corporate governance has appeared as a fundamental concern for Pakistan because of the enduring results of globalization, and the need of domestic economic system integration with the international economic system in order to companies attempt to get advantage from global competitiveness. Whereas, financial liberalization achieved thus far has unlocked the gate for equally foreign direct investment, capital market investment and domestic corporate investors. But, consequently it has grown to be crucial to re-examine the present governance
mechanism to look at its usefulness and advise ways to result in changes if essential. Meanwhile, corporate governance studies based on ownership performance relationship based on two extensive parts – one that proprietorship is an exogenous variable, secondly proprietorship is an endogenous variable. Presumptuous proprietorship to be exogenous, primarily studies confirmed the substantiation of one way causality’ succession from proprietorship to performance or a ‘mono directional’. Ordinary least squared method estimation shows a linear and also a non-linear association among proprietorship and financial performance. A monatomic mounting association among ownership and overall performance proposed that the company performance is the growing role of the size of board, shareholding and that is steady with enticement-orientation testable assumptions (Dodd, 2017; Jensen and Meckling 1976). Contrary, a non-monotonic association among the 2 variables indicates that firm overall performance primarily increases up to a definite altitude of board shareholdings, then decreases as ownership will increase up to another degree and sooner or later will increase with in addition to the board ownership. This clarify that an association among ownership and performance is not usually a positive one. The correlation might be in reality being inverse at better degrees of ownership. This negative association is steady with the testable assumptions (Fama and Jensen 1983; Morck et al. 1988). Stulz (1988) explain the tested model which predict a non-linear (i.e., bell or roof shaped) relative among executive ownership and monetary performance. Overall performance is predicted to enhance as proprietorship rises from the lowest probable point (zero percentage). Conversely, this begins to diminish subsequent to a definite altitude of ownership and reach at lowest while executives hold fifty or more percent of stocks of the firm.

Study revealed on the basis of empirical evidence that the ownership has statistically significant direct relationship with firm performance and other types ownership show combined results Lichtenberg and Pushner (1994). And further evident that firm performance also positively associated with ratio of equity hold by managers as well ratio of equity and stock hold by the firm CEOs Mehran (1995), comparatively, similar results which shows that ownership composition and ownership have statistically significant direct performance effect Xu and Wang (1999). Meanwhile, greater extent of inside ownership has a direct effect on the increasing growth of founding family businesses Randoy and Goel (2003). Meanwhile, a study confirmed opposed results to previous studies is that ownership and performance has negative relationship O’Boyle et al. (1998).

Since the 1980s, the literature on corporate governance has developed on two fronts. On the one hand, it has focused on improving understanding of model of corporate governance and, on the other hand, has attempted to develop scores and reliable measures of "good governance", that is best control practices executives by the investors tending to guarantee efficiency and performance of the firms. The analytical foundations of agency theory, coupled with traditional instruments of financial theory, allow the definition of new indicators as an evaluation tool for the practitioner and guiding economic policies in this area (Aggarwal and Samwick, 2003).

Since its inception, the issue of corporate governance has been directly linked to search for the efficiency of the company. Berle and Means (1932), the separation between ownership and control is the basis for the conflict of interest between management and shareholders creates inefficiency in large companies. The first contributions of the theory of the agency (Jensen and Meckling, 1976, Fama 1980, Fama and Jensen 1983) also to show that information asymmetries between a principal, the shareholder or the investor, and one agent, the company director, will be reduced by the definition of an optimal contract leading the agent to always
choose actions in the interest of the principal, and to limit discretionary behavior. Explicit consideration of the situations of low rationality and costs of writing and negotiating contracts by approaches in terms of transaction costs (Williamson, 1988) or property rights (Hart, 1995) also lead to proposing different control mechanisms to by shareholders or investors in order to resolve the issues of opportunism and of discipline of the leaders. For a recent and comprehensive review of research on corporate governance, we refer the reader to the special issue prepared by Bebchuk and Weisbach (2009). Taking into account the impact of corporate governance on performance markets, and not just on internal efficiency gains, appears with the emergence of the shareholder value theory that codifies the relationship between shareholders and managers (Jensen, 1986). Innovative sectors need to benefit from hybrid governance where shareholders, managers and other stakeholders can intervene jointly in the industrial strategy (Krafft and Ravix, 2005; Filatotchev and Wright, 2005). Given that corporate governance work from this angle of analysis is rare, to our knowledge, fields other than finance, such as strategy, can contribute to a better understanding of this phenomenon. In addition, research combining several theoretical perceptions seems deficient, although a "multi-layered" approach to corporate governance is needed to better understand the impact of EMM and EMS on the process of value creation. Let us mention, nevertheless, Montgomery (1994) who explains diversification strategies through three different theoretical frameworks: agency theory, resource-based view and market forces. A majority shareholder has the legal power to influence the manager and the strategy of the latter. The links he has with the leader then have their importance. The holder of a block can decide on the strategy to implement and pursue his interests, in the framework of the theory of the agency it means not to diversify (Baysinger and Butler 1985). The purpose of this article is to contribute to the debate on the growing demand for scores and reliable measures of corporate governance by carrying out a critical assessment of existing criteria. Our criticism is mainly based on the observation of the virtual absence of reference to sectoral effects in the literature. It will therefore be a question of showing that reproaches existing indicators can be better founded if we take into account explicitly sectoral disparities. These make it possible to better interpret the changes in good governance scores, and their reliability. This article proposes to focus on the empirical analysis of these questions, considering that it is illusory to define a model of governance in a normative way, but instead proposing a way of positive research on governance (Belkaoui and Pavlik, 1992). These sectoral disparities make the adoption of good measures governance has a differentiated impact on performance volatility. The main mechanisms that allow the providers of financial resources to companies to secure return on their investments. These mechanisms are two types: internal (supervision of the board of directors, internal control procedure internal audit, power structure, remuneration and compensation) and external (mergers-acquisitions, takeover bids, regulatory and legal system, competition and regulation, market work of the leaders). This valuation, always oriented towards shareholder value, is based on different quantifiable determinants and therefore marks the advent of a multi-criteria measure of corporate governance. At the same time, the first empirical studies conducted from the end of the 1990s continue to measure the impact of a single determinant on the performance of the "business. The gap between theoretical and empirical work can be explained by the difficulty in accessing comprehensive data on all governance dimensions "company. It follows that the results obtained in the various contributions remain often not very coherent, even contradictory (Chleifer and Vishny, 1997). A founding article that the prevalence of outside members in Boards Boost Stock Marketplace Performance (Adams, Hermalin&Weisbach, 2010). While Bhagat, Black and Blair (2004) argue, on the contrary, that firms where long-standing relationships predominate with shareholders (relational investors) have the best results. With regard to compensation and compensation of executives, it is even less certain that to make them
Empirical evidence supporting assumptions shared in a consensual way by the scientific community is not yet reached. However, it must also be admitted that work carried out over different periods, in different countries, on populations of different firms, and measuring determinants that themselves have different components, cannot easily lead to immediately readable results. The emergence of real multi-criteria work on governance is a very recent phenomenon which accords with the expansion of databases exclusively steadfast to this question. Systematically evaluate the strengths, weaknesses and characteristics of corporate governance practices compared to the standard that represents the maximization of shareholder value. The adoption of this standard at of a firm, industry or country is calculated on the basis of a multi-criteria index which integrates the different dimensions of governance. Databases thus offer a gathering the most exhaustive information possible on these different dimensions and, for each dimension, a system of scores (assumable in more global scores) specific to each database provider the main dimensions which are taken into account in these bases and how these are scored against the corporate governance standard by maximizing shareholder value. For example, if we are interested in the dimension "advice", and more particularly in the structure of the Board of Directors (AC), it can be said that is in line with the values of good control when the Board is composed of a broad majority of outside affiliates, and the score will be 5 (on a scale of 0 to 5). If in On the other hand, the CA is composed solely of members internal to the company, whereas the measures of good governance are not respected and the score will be 0. These sub-scores are then summed to give a score by major category, ie "advice", "audits", "Charter / statutes", "compensation of managers and executives", and "progressive practices", which finally give a global score (Gompers et al., 2003, Core et al., 2006).

2.1 Conceptual Framework

![](image)

ROA = $\beta_0 + \beta_1 Bsize + \beta_2 BIND + \beta_3 BACOM + \beta_4 OEquity + \varepsilon_{it}$

ROE = $\beta_0 + \beta_1 Bsize + \beta_2 BIND + \beta_3 BACOM + \beta_4 OEquity + \varepsilon_{it}$

EPS = $\beta_0 + \beta_1 Bsize + \beta_2 BIND + \beta_3 BACOM + \beta_4 OEquity + \varepsilon_{it}$
3. METHODOLOGY

3.1.1 Source of Data

The panel data have been collected of the top 10 sugar producing companies listed on Pakistan Stock Exchange (PSX). The data extracted from annual financial statements and reports of sugar companies.

3.1.3 Sample Size

The sugar company’s data have been collected for the extensive period 2009 to 2017. The total 90 observations have been taken to conduct this study after total panel observations adjusted. In addition, some companies have been excluded on the basis of non-availability of data in order to ensure sufficiency of data.

3.1.4 Variables

Total seven variables have been applied in this study, four independent variables and three regressors. Table 2 provides explanation of all the regressors employed in this study:

Table 3: Definitions of Variables Applied in Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variables</td>
<td></td>
</tr>
<tr>
<td>Return on Assets (ROA)</td>
<td>“ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company’s annual earnings by its total assets.”</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>“Return on equity (ROE) measures a corporation’s profitability by revealing how much profit a company generates with the money shareholders have invested”</td>
</tr>
<tr>
<td>Earnings Per Share (EPS)</td>
<td>“Earnings per share (EPS) is the portion of a company’s profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company’s profitability.”</td>
</tr>
</tbody>
</table>

4. RESULTS & DISCUSSION

The set of variables data were collected and then analyzed and studying the stochastic association between ownership and firm financial performance and evidences shows that model is significant as Prob (f-statistic) 0.00416 < level 0.010. But, model explained 19% which shows that model is weak to show significance of study.
Table 4.1 ROA Panel Least Squares

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.626892</td>
<td>1.951131</td>
<td>-0.321267</td>
<td>0.7490</td>
</tr>
<tr>
<td>BOARD_AUDIT_COMMITTEE</td>
<td>-0.166612</td>
<td>0.153658</td>
<td>-1.095381</td>
<td>0.2769</td>
</tr>
<tr>
<td>BOARD_INDEPENDENT_DIRECT</td>
<td>0.185034</td>
<td>0.234895</td>
<td>0.787941</td>
<td>0.4334</td>
</tr>
<tr>
<td>BOARD_SIZE</td>
<td>-0.322169</td>
<td>0.092329</td>
<td>-3.246387</td>
<td>0.0018</td>
</tr>
<tr>
<td>LnOEQ</td>
<td>0.283490</td>
<td>0.123223</td>
<td>2.390626</td>
<td>0.0244</td>
</tr>
</tbody>
</table>

R-squared 0.196088
Adjusted R-squared 0.149434
S.E. of regression 0.796035
Sum squared resid 44.00938
Log likelihood -85.77394
F-statistic 4.207570
Prob(F-statistic) 0.004167

However, board size and owners equity shows significant relationship on level of p-value <0.05. Meanwhile, Board size shows negative association with return on assets as Board sizes decreases return on assets increases and vice versa. The same relationship confirms by a study conducted (Irina and Nadezhda, 2009).

Moreover, owner’s equity shows a positive relationship with return on assets which means an increase in owners’ equity shall increase return on assets and decrease may cause decrease in return on assets. Randoy and Goel (2003) also confirm the same results of direct relationship owner’s equity with return on assets. Whereas, another study, tells that board size, board composition and audit committee has significant direct relationship with return on assets (Azhar and Mahmood, 2018).

Furthermore, another model tested by explanatory variables with new regressand ROE return on equity and shows results in the table 4.2ROE Panel least squares.
Table 4.2 ROE Panel least squares.

The ROE model is significant as Prob (F-static) 0.07 < 0.010 which indicates the model is significant but with one significant variable of Independent Directors that has significant impact on return on equity. Shleifer and Vishny, (1997) explained that Independent directors had positive association with return on equity.

Table 4.3 EPS Least Squares

The final model of study table 4.3 also indicate significant results with Prob (f-static) 0.00 < 0.10 and furthermore showing that independent director & audit committee have positive relation with the earning per share. This study endorses the result of (Farooque, Zijl, Dunstan
and Karim, 2007) which tells that both variable have significant and positive relationship with the earning per share.

5. CONCLUSION

To conclude this study, the results can be taken from the preceding evidence over the period of 2009 – 2017 of Sugar industries of Pakistan. The study explained the significance of ownership with financial position and it showed that the sugar Industry has good financial performance on the basis of results. In addition, corporate governance is considered as one of the extensively studied subject and helps in mitigating the divergence of interests among managers and investors. Primarily, corporate governance objective is to guard capital owners from the opportunistic activities of administration and safeguard the interests of shareholders and stakeholders (Rouf, 2011).

Board size shows negative association with return on assets as Board sizes decreases return on assets increases and vice versa. The same relationship confirms by a study conducted (Irina and Nadezhda, 2009). However, owner’s equity shows a positive relationship with return on assets which means an increase in owners’ equity shall increase return on assets and decrease may cause decrease in return on assets. Randoy and Goel (2003) also confirm the same results of direct relationship owner’s equity with return on assets.

Furthermore, independent director & audit committee have positive relation with the earning per share. This study endorses the result of (Farooque, Zijl, Dunstan and Karim, 2007) which tells that both variable have significant and positive relationship with the earning per share. Shleifer and Vishny, (1997) explained that Independent directors has positive association with return on equity.

REFERENCES


