

Impact of Corporate Governance on Financial Performance of Organization: Study of Manufacturing Firms in Pakistan

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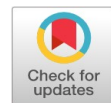
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Abstract: This study aimed to discover the impact of the corporate governance mechanism on firm financial performance and better understand the relationship among different corporate governance mechanisms such as board size, board composition, and firm performance in the Karachi Stock Exchange. All listed manufacturing firms at PSE are the population of this study. The data has been collected through simple random sampling of different manufacturing firms. The panel regression method technique is used in the present study to identify corporate governance effect on a firm's financial performance. The findings of this study highlight that the Board of directors characters do matter a lot in the non-financial sector of Pakistan. So the policymakers and rest of the stakeholders must consider the finding of this study while formulating different policies regarding the above-discussed dimension of Board of directors to magnify their respective firms' financial performance.

Keywords: Corporate governance, Board size, Board composition, Return on assets, Performance

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INTRODUCTION

Financial performances of any firm are relevant to the different subjective measures to determine that how good firms utilize their resources for the primary aim to generate profit (Al-ahdal, Alsamhi, Tabash, & Farhan, 2020). According to Eyenubo (2013), it is the process of success to achieve objective, targets and goals in set time period. Performance is a favorable result by an individual/team or an organization accomplishment or contribution within a specified time period through mandated process (Gilang, Fakhri, Pradana, Saragih, & Khairunnisa, 2018; Watkins & Arrington, 2007). Some researchers have suggested different approaches to corporate governance suggested by different theories, but two prominent approaches are most widely used and applied. First approach is conformance issues (relating to director's commitment) and second approach is performance issue. Both of these approaches must be fair and answerable as well as critical for business success. The first dimension conformance dimension focuses on an implementation and execution of a regulatory model of operation for the directors and related issues like structures of a board and their roles and responsibilities. Contrary to conformance dimension performance issues put a greater emphasizes on the strategic value and stimulate the important drivers of performance. Klapper and Love (2004) conducted a research on the relationship between good governance and firm operating performance by using a firm level data of fourteen growing stock exchanges and they used a ROA as a proxy for firm operating performance and found a positive and significant relationship among study variables.

The firm financial performance can be identified via some essential reports of any firm which are discussed here. Financial statements help in identifying the financial health of the whole firm's performance.

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It provides information about the firm financial results such as firm budgets and information about the physical asset that ultimately helps firm in enterprise decision management system. But this information is inadequate because this information's do not clear the whole picture of firm business. For this purpose three important financial documents provide the complete picture of a firm financial situation: Balance sheet, income statement and the cash flow statement. The balance sheet summarizes the values of assets and liabilities that firm possessed. While on the other hand income statement portrays the amount of profit that business generates. Ordinarily income statements are prepared annually. To get a better understanding of firm performance accrual income statement is used because it considers both the change in inventory as well as cash transaction. While the sources from where cash is generated and where it is spent is reported in cash flow statement. This statement gives a detail description of how much change in firm financial resources during a financial year and from where and when the cash was received and consumed. This understanding and information regarding the timing of firm cash received and expenses is very important in managing the entire firm business.

In year 2000 and 2001 world's biggest corporate scandals were shown in United States (Enron, WorldCom and Tyco) these corporate failures hurt corporate world badly. [Vinten and Mardjono \(2005\)](#) in study tried to identify the reason behind the failure of some big corporations like (Enron, WorldCom and Tyco) and found that these corporations were failed not because of its practices of doing business but they violated the basic and fundamental principle of good corporate governance. Regulatory authorities bound to established corporate rules against the compliance of frauds, deception, misrepresentation, and insider trading like in Sarbanes Oxley act (2000). These corruption scandals leave a clear message to moderate the traditional corporate structure and reduce the errors and omissions. Due to these scandals investors are threaten to invest their resources. As a result, regulatory authorities all over the world emphasized more on protecting and promoting shareholder interest by making and laws and set a rule that uses best approaches of corporate governance ([Makki & Lodhi, 2013](#)).

In Pakistan most of the manufacturing companies operate at smaller scale and do not follow the basic principles of corporate governance. Previous studies has demonstrated that firm who were not properly governed demonstrated lower firm financial performance and market share as compared to firms who was managed governed properly ([La Porta, Lopez-de Silanes, Shleifer, & Vishny, 1997](#)). According to the World Bank in 1999, the corporate governance comprise of two mechanisms one is internal and second is external. Internal corporate governance provides security and preference to share holder interest also guide board of directors to monitor upper level management. Manager's behavior control and appraised through external regulation and factors of external corporate governance that include different parties such as stakeholders, accountants, suppliers, debtor and some professional institutions ([Kombo, Chepkoech, Koech, & Shavulimo, 2014](#)).

[Gugnani \(2013\)](#) articulated that problems and issues in corporate governance are similar to the agency related problems that arises in a form of conflict between shareholders and manager, most of the organization who operate at global level they follow the GAAP assumption and maintain their record according to the legislation. It is a process that is used to minimize the agency related costs that emerge as a result of the clash in the middle of managers and shareholders interest. Conflict arise due to departure of ownership, according to the modern day business managers take powerful position that provide them independence to take decisions in favor of firm's value maximization and to achieve their objectives.

Hence, manager can also use their control to fulfill their personal need at the expenses of stakeholders. Moreover previous studies has demonstrated that this relationship among firm financial performance and corporate governance bot in developed as well as under developed countries is very inspiring, due to this the relationship among the corporate governance mechanism and the quality of financial reporting has improved significantly to a greater extent ([Hassan & Ahmed, 2012](#)). Corporate governance has major importance at both at country and corporate level because it plays a vital role in creating suitable environment through microeconomic stability of a country. It is also important for economic development as well as for a society well-being; as international institution gives priority and deep attention to both aspect of this issue at both micro and macro level.

Corporate Governance is "a set of relationships among a company's executive, its board members,

shareholders, and company stakeholders. It also provides the structure or road map through which company objectives are set or established; specify the means and ways of achieving those objectives and checking performance as determined and comparing that with set standard of performance. Better corporate governance always provides appropriate incentives for the board members and for the management and always pursues those objectives that are in the best interest of a company and shareholders. It should assist in effective monitoring and encourage firm to utilize its resources more efficiently and effectively” (OECD, 2005).

Kapooria, Sharma, and Kaul (2013) corporate governance involved in the development and improvement of country economy as well as exercise a solid impact on the allocation of resources. It has a strong and positive influence over the behavior formation and upon firm performance, entrepreneurship, innovation and in the development of country economy. Liu and Sun (2005) highlighted various corporate governance tools or mechanisms. Such as: size of a board, composition of the board, status of CEO status, independence of board, transparency and accountability. In today business world majority of the larger organization uses this mechanism of corporate governance for managing organizations because of its larger size and complexity in external environment. A corporate governance mechanism is primarily used by public organization.

The purpose of this study was to discover the impact of the corporate governance mechanism on firm financial performance and provide a better understanding of the relationship among different corporate governance mechanism such as: Size of Board, Composition of Board and Duality of CEO and firm performance in Karachi Stock Exchange . The focus is on these dimensions of corporate governance in the present study. Vo and Phan (2017) suggests that relationship among firm’s financial performance and corporate governance.

Through extensive review of literature the author identify the range of variable who contribute to corporate governance. Data were analyzed by using flexible generalized least square technique on listed firms in KSE, the results of present study demonstrated that corporate governance variables such as CEO duality, female board members presence , working experience members of board possess and the board member compensation has a positive influence over the firm financial that was measured through a proxy Return on Assets (ROA). While the size of a board was negatively associated with the firm financial performance and consequently study also found that the ownership of the board member and firm financial performance has a nonlinear relationship. A negative relationship of CEO duality with customer satisfaction is found although separate leadership structure increase customer satisfaction. Although there is a relationship among quality of audit, corporate governance and firm financial performance, but the most significant relationship exist between dividend yield and quality of audit as compared to operating performance of a firm (Brown & Caylor, 2004).

Problem statement

Board of Directors are the agents of the owner they manage the corporation on behalf of owners. So there is a chance of conflicts between agents and principal that can affect the corporate performance. This phenomenon is explained by the agency theory. Likewise, the characteristics of board of directors i.e., the composition, size etc. has nexuses with agency problem and eventually corporate performance. Literature evidenced that abundant studies have been conducted on the relationship between board of director’s characteristics and financial performance and reported inclusive results. These indecisive results justify the need of this study and motivate me to study this relationship with context of Pakistani non-financial sector. The findings of this study will be significant contribution to literature.

Research objectives

The overall research objective of this study was assessing the control mechanism of corporate governance. Specific objective of the objectives of the study are as follows:

- To find out the impact of board size on firm financial performance.
- To find out the impact of executive and non-executive board composition on firm financial performance.

- To find out the impact of CEO duality on firm financial performance.

Significance of the research

The present study measured the effectiveness of corporate governance mechanism that will be beneficial in following:

Academic point of view: The present research study was conducted on a very informational topic such as relationship among corporate governance and firm financial performance of the firm. It is very important for those people who are engaged in business study, this study explore the relationship with financial performance and its impact of strong and weak governance and transparency of financial document and their strength of decision making, corporate governance receive valuable attention of researcher after some big financial upsets.

Practitioner point of view: People who are engaged in doing investment on other business are worked as accountant in some organizations that is essential for them to know hard and core rules of good corporate governed firms. This study suggests them how to protect investor funds and their satisfactions. It also tells, what were the essentials for the safe investment and good return and those people who worked in good governed firms are always interested to improve their knowledge for taking job incentives and best compliment from boss.

Societal point of view: Knowledge of corporate governance tells the society how to use their resources and averse the risk elements for the interest of society. Corporate governance bound organizations to protect shareholder's wealth and disclose all the pros and cons to them which help to improve the life style of society.

LITERATURE REVIEW

Theoretical background of the study

Corporate governance is a set of relationship that exists among shareholders, board of directors and the upper level management that assist in defining the direction and performance of the overall corporation. It is a multiplayer relationship among the stakeholders and the goals for which the corporation exists and governed (Kim & Rasiah, 2010). Imam and Malik (2007) speculated that one of the key tools of corporate factor that assists in proper and efficient utilization of resources is a theoretical framework of corporate governance.

The major issue corporate governance is facing is that it has to align the rights and interests of an individual persons, businesses and overall society by employing a important ethical basis and it also have to attain the long term planned goal and objective of the owners. However this process is not applicable to all organization, but it take into account the concerns of all important stakeholders (Imam & Malik, 2007). So by employing corporate governance mechanism company ensures that all agreements are legally maintained and mechanism through company is controlling its activities of doing business is also legally formulated. Different theoretical prospective has been used in explaining the impact of corporate governance mechanisms and firms' financial performance. Among from those approaches the most prominent perspectives are stakeholders' theory, agency theory and finally the resource dependency theory

Agency theory

The most famous theory which has received a greater attention from academicians and practitioners is agency theory (Habbash, 2010). It is based on the relationship between principle and agent. In today modern world companies the discretion of ownership that results in the agency problem and provides a foundation for agency theory. The shareholder as a principle do not directly involved themselves in day to day operation and caring out the routine tasks of its business for this purpose they hire a manager who act as an agent who are directly involved in managing the corporation (Habbash, 2010). This distribution results in the distribution of ownership and give the controlling right to the agent that give raise the conflict of interest .The agent on the behalf of principle tries to protect its own interest. The company has to suffer a massive cost including incentives for its managers in bringing the balance between the conflicting interests of the principle and agent.

According to agency theory the agent strives to achieve his personal goals at the expense of the principal. Managers are mostly motivated by their own personal interests and benefits, and work to maximize their own personal benefit rather than considering shareholders' interests and maximizing shareholder's wealth. To reduce agency problem there must be better monitoring and controlling mechanisms which helps to ensure that managers pursue the interests of shareholders rather than only their own interests.

The concept of corporate governance put a spot light on basic conflict that exists among a shareholders and corporate managers (Jensen & Meckling, 1976). The shareholder ultimate interest is to get maximum return on its investment contrary to this objective manager may have conflicting interest such as authority and power, prestige of governing a big organization.. Manager always has the better access to information as compared to many shareholders who are helpless in this regard (Fama & Jensen, 1983). For this purpose share holder employee board of directors who are there representative and monitor and control the activities of manager. Boards of directors are thought of to be an important tool through which shareholders protect themselves of being exploited by manager, direct and control the activities of manager and prevent manager from achieving its personal interest at company costs.

This theory provides a strong theoretical base for studying corporate governance by taking into consideration many internal as well as external mechanisms. The basic aims of designing mechanisms of corporate governance is ensuring the process that aligns the conflicting interest of shareholders and managers and provides a safeguard against a self-serving behaviour of a manager and help to resolve agency problem (Habbash, 2010). It is mechanism that ensures shareholders that manger will always act and behave in a best interest of corporation. Agency theory has suggests a numerous ways through which agency problem can be resolved such as , effective audit committee suitable board composition in terms of size, gender, experience and competence, and the threat of firing (Tandelilin, Kaaro, Mahadwartha, & Supriyatna, 2007).

From agency theory perspective, corporate governance increases corporate performance by solving agency problems through proper monitoring of manager activities, controlling self-seeking behaviors of manager and reviewing the financial reporting process (Habbash, 2010). Moreover, corporate governance has the capacity to lessen agency costs by bringing in balance the conflicting interests of managers and shareholders by using different corporate governance mechanisms. The corporate governance mechanism like boards of directors and audit committee empowers shareholders to closely monitor the activities of management. As the agency theory put a greater emphasizes on the structure of board that has key controlling role (Habbash, 2010). The corporate governance mechanisms included in the present study was board size of the board, diversity in gender, board members educational qualification, specific and general industry experience of board members and finally the size of the audit committee.

Size of board

Board size considered as important corporate governance's variable of a firm. Board of directors plays a fundamental role in the corporate governance of recent companies. Jensen and Meckling (1976) and Lipton and Lorsch (1992) speculated that when board of director are large there is hard to work effectively and might create problem for CEO to control, as greater the member of board may also give rise to the issue of resolving the agency problem among the members of the board. Appropriate size of board is 7-9 directors; market value firms have small boards for quick decision making. This conclusion is summarized in the survey by Hermalin and Weisbach (1991) theory behind survey was that when board become too large than agency problem arises such as director are free to ride a corporation within the board and board become more representative and disable the management to perform their functions efficiently, corporate board must be internally determined institution on which number of characteristics and organization depends upon.

The board of directors has been widely acknowledged as an important corporate governance mechanism that bring in balance the conflicting interests of management and shareholders as well as the stakeholders of the firm. The key driver behind this alignment is agency problem that focuses much on choosing a correct governance mechanism through which agency cost is minimizes to a greater extent and prevents the manger from free riding of a corporation. Keeping in view these types of issues the

dominant role of board of directors in this process has been widely recognized in recent years for a couple of reasons. First as today the business environment is rapidly changing and competitive that makes it difficult for developing as well to attract resources for investment. Second is the recent corporate scandals at world renowned corporations such as Enron, Tyco and World Com has put a much greater emphasizes on policies and procedure that promote the board and many other features of corporate governance (Sanda, Mikailu, & Garba, 2010).

Uadiale (2010) found in strong significant association among board size and corporate firm financial performance. Their study results were consistent with the findings of Dehaene, De Vuyst, and Ooghe (2001). Literature also illustrated the positive significant association among board size and financial performance. As Raheja (2005) speculated that board of directors is performing two fundamental functions of advising and monitoring. First advisory function of the board of director is providing expert advice and skilled management to CEO (Fama & Jensen, 1983). Corporate governance is consider as a first step in solving a different type of agency problems by employing it different mechanisms .As the monitoring role of board's plays a critical role in good corporate governance, in which its efficiency and effectiveness are reflected through the composition of board , size of the board and its independence. Second and most important function of the directors is to hire the CEO and other top executive with best quality and skills moreover evaluate their performance and to make sure that managers are working in the interest of shareholders executive are replace in case of unsatisfactory performance. Topak (2011) has found an insignificant association among the size of board and firm financial performance.

Board composition

This study conducted to determine the association among the composition of board composition and its effects on firm's financial performance. Many researchers have carried out their studies on this area. Moreover, this analysis and theoretical observation verify evidence from the literature referring to the topic under study; express the association between corporate governance, board composition and firm performance. Furthermore, primary purpose of this study is to examine how that board composition had an effect on firm's performance and what are the effects of Independent board on firm performance in Pakistani listed companies. According to Shah, Khan, Bokhari, and Raza (2011) members of boards must include executive as well as non-executive directors, executive directors are mostly refer to as dependent director and non-executive directors refer to as independent director. Beasley (1996) speculated that in order to monitor the board member in unbiased manners and for effective functioning of board at least one third part of the independent director are in board member side. While on the other side the importance of dependent directors can't be ignored because they are more aware organization inside information which is far behind the reach of directors who are outside the organization, this will give rise to the possibility of using this information for personal benefits on the part of dependent directors .The literature has also illustrated that composition of board and firm financial performance has a positive association among themselves, despite this some researcher has also report contradictory findings such as Hermalin and Weisbach (1991); Shah et al. (2011) found that the independent board had a positive association with firm's financial performance and while on the other hand Bhagat and Black (1999) found in his study that the independent board and firm's financial performance has no relationship.

The implications of previous study was to articulate these contradictory point among the studies that has tried to studies the relationship among board composition and firm financial performance among the companies listed in Karachi Stock Exchange of pakistan. The present study tried to explore that whether independent board result in higher firm performance. Afify (2009) argued that the board member composition reflect whether its members are independent are not if the outside directors are in greater numbers compared to non-independent director the board is expected to be more. The independence of board member reflects effective monitoring and better monitoring of the corporation. Independent members of board who are in a greater possession of expertise related to financial issues may contribute in better firm performance by analyzing company financial reporting processes and practices. Similarly, Cheng and Courtenay (2006) highlighted that as the number of independent director increase its result in voluntary cloudiness of many ethical issues in a corporation. Furthermore, Klein (2002) speculated that

the structure of board, such as independent board who are working independently of chief executive officer also plays its role more efficiently and effectively by analyzing the corporation financial accounting process.

CEO Duality

CEO duality is a practice when one person is acting as both the chief executive officers as well as a chairman of board of director. This practice has received a greater attention of academicians as well as practitioners from past two decades. While the activities of chief executive officer are monitor and controlled by the member of board who are working on the behalf of shareholders. They have the right to design compensation packages for CEO, sign contracts on the behalf of shareholders and ultimate right of hiring or firing of CEO. This Duality has the benefits of creating more value for the corporation as it works more closely with the members of the board. [Abbasi, Hossain, and Leydesdorff \(2012\)](#) in his study the existence of relationship among corporate governance mechanisms and CEO duality and found a significant association among Board's size and CEO duality, and a significant positive association among the Board's Independence and CEO duality. The results of the study revealed the fact that institutional ownership is positively and significantly affected by corporate performance while CEO duality is negatively affected by corporate performance in companies who has a larger board size distribution of and low top management ownership.

Furthermore, [Dorata and Petra \(2008\)](#) in their study tries to examines the association among the level of performance-based incentives and corporate governance structures. They conclude that the CEO duality decreases the risk of awarding managers incentives to lower outstanding performance but the amount of incentives will be influenced by the board size. Similarly study conducted regarding CEO dualities among a sample of manufacturing firms that were listed in also found that CEO duality has a positive and significant influence over the firm value creation. The resulted of the study has suggested that separate role of CEO and chairman in manufacturing firms has significantly influenced firm value.

When CEO, as the top manager of the corporation, responsible for channelizing resources to achieve companies' strategic goals that are set by the board, but chaired by CEO is expected to improve company's performance due to dual leadership. Nevertheless, some others have another opinion that separating CEO and chairman could reduce the bankruptcy risk and increase the chances of raising capital ([Amba, 2013](#)). According to [Fosberg \(2004\)](#), "Firms where the position of CEO and chairperson are clearly separated are likely to employ the optimal amount of debt in their capital structure".

The basic proposition of agency theory is that the chairmanship and chief executive officer must be a different individual in order to protect from self-serving behaviour. As the primary responsibility of board member is to look monitor, control and evaluate the management. As per agency theory proposition this duality may contribute to greater firm value but may also has the possibility of hindering board in proper monitoring of CEO activities and actions ([Habib & Hossain, 2013](#); [Wang & Chen, 2020](#)). Agency theory recommends that this separation may result in more better and efficient functioning and monitoring. Consistent with agency theory the Jordanian Corporate Governance Code also suggested this separation of positions and responsibilities. As this split-up result in better control over the activities of manager and aligning the conflicting interests of managers and shareholders.

RESEARCH HYPOTHESES

The present study was mainly consisted of following hypotheses which are stated as below:

H1: There is a positive relationship among Board size and firm's financial performance.

H2: There is a positive relationship among Board composition and firm's financial performance.

H3: There is a negative relationship among CEO Duality and financial performance of the firm.

RESEARCH MODEL

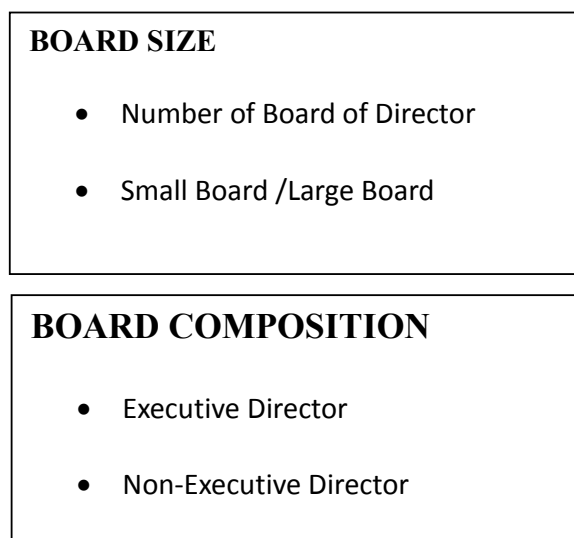


Figure 1. Research framework.

$$ROA = \beta_1 + \beta_2 BS + \beta_3 BC + \beta_4 CEOD + \sum$$

ROA = Return on Assets

BS = Board Size

BC = Board Composition

CEOD = Chief Executive Officer Duality

Dependent & independent variables

As the firm financial performance is dependent on corporate governance variables. Corporate governance variables includes board of director, board composition and CEO Duality are independent variables which were taken as independent variables in present study while ROA is taken as dependent variables in current study.

RESEARCH METHODOLOGY

Recent research and extent literature in this area consider the use of different econometric techniques and variables to found out the association between firm's financial performance and Board of Directors attributes. After the brief survey of literature, it is confirmed that good or bad decisions of governance arise some essential points of the governance in discussion among different governance mechanism, as corroborated by all studies. Nevertheless, still in line with the research in that area, the objective of this paper is to answer the research questions. The use of more sophisticated methodology, we use different mechanism to prove our hypothesis we collected board of director's data from 2010-2015, majority of researcher used Pearson correlation and regression to check the relationship among corporate governance and firm financial performance on collected data through simple random sampling. Current study is conducted on specific areas of manufacturing from evidence from Pakistan Stock Exchange (PSE). This study discloses the governance impact on financial performance of manufacturing sector only.

Population and sampling

All listed manufacturing firms at PSE is the population of this study. The data has been collected through simple random sampling of different manufacturing firms.

Target population

For the purpose of testing hypothesis of current study research all manufacturing firms of PSE was

taken as the target population of the study. More specifically the listed firms of PSE who were trading in manufacturing sector we set as target population to accomplishment of our research.

Sampling technique

To answer the research questions and to test the proposed hypothesis in our research we use simple random sampling, there is equal chance of selection of an organization as our sample in population. We are trying to collect data from different fields with in the boundary of manufacturing firms of Pakistan Stock Exchange (PSE).

Sample sizes

For the accomplishment of our research and to test the proposed hypothesis through using different statistical techniques we select 10 manufacturing firms from target population as a sample size of our research. Sample size is 10 consisting of randomly selected from PSE and data

Data source

Secondary data about the board of director proxies has been sourced form Annual Audited Reports of the selected firms and data of financial performance proxies has been compiled from BSA.

Selection of measures

Selection of measures for Board of directors' characteristics and financial performance along with the rationale for the selection of these measures is explained here under.

Firm's financial performance: Firms' financial performance is measured through a popular accounting based measure of performance that is return on equity. The ROA is most accepted measure used in the area of corporate. Though, some researchers have a preference to use market based measures of performance. Both accounting and market based measures indicates different perspective of firms financial performance but these perspectives have some limitations as well as some biases (Hillman & Keim, 2001).

In past critics target greatly accounting based measures of performance but recently these measures have been defended on number of grounds (Bromiley, 1986). This measure is considered as very good measure of financial performance by large number of researchers (Bettis, 1981). Therefore, this study would also be using ROA as performance measure which is an accounting based measure of performance in line with R. A. Latif, Kamardin, Mohd, and Adam (2013).

Board of directors: Literature has suggested that there are generally two methods are used by the scholars to measure the corporate governance. Some have used corporate governance index and some other have identified directly various proxies of corporate governance and separately study the relationship they wish to study. Both the methods have some limitations. However, in some studies authors have used both the methods. So, in line with B. Latif, Shahid, Haq, Waqas, and Arshad (2013); Shah et al. (2011); Staikouras, Staikouras, and Agoraki (2007) this study has also employed individual proxies of corporate governance (BS, BI, ACI, MO and OC) and studied their impact on firms, performance (ROA).

Final econometric model

The main purpose of the current study was to explore the influence of corporate governance on firms' financial performance. To this end, both firm and year fixed effects panel regression method has been used in this study, as guided by the above selection process. The data of present study is consisted mainly of time series as well as cross-sectional data, panel data and longitudinal data.

So, panel regression method technique is used in present study to identify the effect of corporate governance on firm' financial performance. Panel data is more advantageous as the degree of freedom is increased by using panel data, and reduces the multi co-linearity between independent variables.

The model is specified to test the hypotheses is stated as below:

$$ROA_{(i,t)} = \alpha_P(i, t) + \beta_1 BI_{(i,t)} + \beta_2 BS_{(i,t)} + \epsilon_{(i,t)}$$

Whereas,

$ROA_{(i,t)}$ = ROA for firm i at time t .

$BI_{(i,t)}$ = Board Independence for firm i at time t .

$BS_{(i,t)}$ = Board Size for firm i at time t .

$i = 1$ to 100 firms, $t = 2005$ -2014

Finally, β_1 , β_2 , captures all variation in dependent variable, and $\alpha_{(i,t)}$ is the intercept, and $\epsilon_{(i,t)}$ is the error term.

RESULTS AND DISCUSSION

Descriptive statistic

Mean, standard deviation and maximum and minimum value of the variables are described here the minimum number of available board of director in our data is 5 and maximum number of directors are 12. As it is average size of executive directors in a firm is 3 and, 4 non-executive directors are fit for any firm, Minimum ROA are -0.0274% and highest return in our research is 0.3% annually as well as percentage of return on equity is -0.07% lower and 10.5% is higher return annually further static shown below in a Table 1.

Table 1: Descriptive statistics

| S.No | Variables | Mean | Std. Deviation | N |
|------|-----------|-------|----------------|-----|
| 1 | BS | 7.72 | 1.55 | 50 |
| 2 | CEOD | 1.16 | .37033 | 50 |
| 3 | BC | 3.48 | .72111 | 50 |
| 4 | FP | .9122 | 1.14572 | 50 |

Inferential statistics

In this section correlation matrix, Variance Inflation Factor (VIF), unit root test and results of panel regression has been presented.

Before the execution of regression it is necessary to check the multi-co-linearity among independent variables included in the model. For this purpose, the correlation matrix and VIF has been employed. Moreover, stationary of the data is also checked thorough unit root test. The results of correlation matrix are presented in Table 2, variance inflationary factor in Table 3 and unit root in Table 4.

Table 2: Correlation of independent variable

| | Board Size | Board Independence |
|--------------------|------------|--------------------|
| Board Size | 1.000000 | |
| Board Independence | -0.183285 | 1.000000 |

Table 3: VIF results

| Variable | Coefficient Variance | Unmetered VIF | Centered VIF |
|----------|----------------------|---------------|--------------|
| BI | 0.001925 | 28.13183 | 1.941710 |
| BS | 1.82E-05 | 32.45447 | 1.131939 |
| Const. | 0.001754 | 41.45298 | 0.0000 |

Source: Calculated by author from data of sample firms by using eViews

The above results are depicting that the correlation between the variables is weak. This weak correlation between explanatory variables (Independent variables) is demonstrating that there is no serious issue of multi-co-linearity. Moreover, VIF is also less than 5 for all variables which further proved that the multi-co-linearity among the variables is at patience level and there is no problem to use these variables for regression analysis in respect of multi-co-linearity.

Regression analysis

After fulfilling the all the due formalities, the regression analysis has been don and the following results has been obtained.

The results of regression analysis are demonstrating (Table 4) that *R*-square with explanatory variables (BS, MO, OC, BI and ACI) is 0.26 and adjusted *R*-square is 0.25, which means all variables have collectively explained almost 26% variation in this model with dependent variable (Firms, financial performance) and remaining variation is required to be explored.

Furthermore, the value of *F*-statistic is showing the goodness of fit of this model and its value is significant, which means this model is specified. It is further added that the constant term of this model is significant, which is depicting that more explanatory variables are required to include in the model.

Table 4: Summary of panel data regression analysis

| Variables | Coefficient | Std. Error | Statistic | Prob. |
|---------------------|-------------|-------------------|-----------|------------|
| C | 0.70823 | 0.220927 | 3.2057 | 0.0038 *** |
| BS | 0.467306 | 0.150103 | 3.2465 | 0.0012*** |
| BI | -0.00269013 | 0.00135774 | -1.981 | 0.0481 ** |
| CEOD | -0.00269013 | 0.00135774 | -2.982 | 0.0461 ** |
| R-squared | 0.2575 | Probe(Statistics) | 0.043 | |
| Adjusted R- squared | 0.2437 | | | |

Dependent Variable: ROA

Source: Calculated by Author from data of sample firms by using Views

The above table is showing the influence of Corporate Governance (BS, MO, OC, BI and ACI) on firm's financial performance (ROA).

Board size

The coefficient of board size is (0.467306) with significant *p* value of (0.0038), which is less than 0.05 or 5%. It is showing that board size has positive influence on firm's financial performance measured by ROA and this impact is significant as *p* value < than 0.05. The significance of aforementioned results is also confirmed by the value of *t*-statistic, which is greater than 1.98. So, the influence of board size is significant on the firm's performance. The results are showing that if one unit of board size is increased then 0.23 units of firm's performance (ROA) also and vice versa. The results are showing that H1 that board size has positive impact on firm's ROA is accepted as the statistical results are showing the positive impact on ROA.

The findings of our study in respect of BS are therefore consistent with the findings of [Anderson and Campbell II \(2004\)](#); [Eisenberg, Sundgren, and Wells \(1998\)](#), and also consistent with the resources dependency theory.

Board independence

The co-efficient of board independence is -0.00269013 with *p* value less than 0.05, which is showing that board independence has negative impact on firms' financial performance that is measured by ROA and this impact is significant as shown by the *p* value that is less than 0.05. The significance of results is also proved by the value of *t* statistic which is more than 1.98. Therefore, the influence of board independence is significant on the firm's performance.

The results are showing that if one unit of board independence is increased then 0.209 units of firm's performance (ROA) is decreased and vice versa. The results are showing that H2 that board independence has positive impact on firm's ROA is partially accepted as the statistical results are showing the negative impact on ROA. These results may be due to country effect, industry effect or due to use of proxy i.e., ROA for firm's performance. Moreover, as per the impact of BI on ROA is concerned our findings of negative impact are may be due to the reason that independent directors do not give full time

to the company because they are likely to be busy with other commitments and serve the company on part time basis. In addition to this, there is a possibility that outside directors may not have experience of managing such type of businesses hence cannot make the best decisions.

The results of this study, in this regard are similar with the findings of Amoll (2015); Beasley (1996); Hermalin and Weisbach (1991); Staikouras et al. (2007). All these researchers have reported negative relationship between BI and firms' ROA.

CEO Duality

CEO duality shown negative relationship with firm performance and also support our H3 CEO duality have negative impact on firm performance result indicate that association among CEO Duality and firm financial performance is negative as co-efficient is -0.00269013, $p > 0.05$). The results also align with the research of Abbasi et al. (2012) who found not meaning full results between board size and firm's financial performance.

LIMITATIONS AND RECOMMENDATIONS

The limitations of the study are:

- This research is limited to manufacturing sector only and financial sector is beyond the scope of this study.
- This study used only two attributes of Board of Directors and the rest of the attribute are not included.
- This study is limited to only 30 manufacturing firms due to the shortage of time.

Following future directions are being proposed:

- In future same relationship can be studied in financial sector so that the findings could be generalized.
- Moreover, rest of attributes of board of director can also be studies with greater sample size and time duration that will give more reliable results.

CONCLUSION

Form the above discussed findings of this study it is concluded that he Board of director's characters does matter a lot in non-financial sector of Pakistan. So the policy makers and rest of the stake holders must consider the finding of this study while formulating different policies in respect of above discussed dimension of board of directors in order to magnify the financial performance of their respective firms.

Moreover, it suggested that the large board size and less degree of independence will enhance the financial performance in non-manufacturing sector of paskistan.As per the CEO duality is concerned it is suggested that duality of role has negative impact so separate peoples must be appointed that will lead to higher financial performance.

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