Impact of Firm Performance and CEO Compensation with Moderating Role of Board Characteristics and Audit Quality

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<table>
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<tr>
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<tbody>
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<td>Firm Performance</td>
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<td>Board Independence</td>
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<td>Board Gender Diversity</td>
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<td>Audit Quality</td>
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ABSTRACT

The motive behind conducting this study is to investigate the effect of the agency theory on Chief Executive Officer (CEO) Compensation through alignment among firm performance and CEO compensation. The moderating variables like Board characteristics (Board independence, Board gender diversification) and Audit quality have some connection between firm performance and CEOs compensation. The data for the period 2013 to 2017 is collected from 100 non-financial firms registered at the stock exchange of Pakistan. Empirical evidence show that firm performance is positively connected with CEO compensation which is close to the agency theory's pay-performance correlation plan. The results demonstrate that independent directors on board insignificantly affect the alignment among firm performance and CEO compensation in Pakistan. The Board gender diversity has an insignificant effect on the alignment among firm performance and CEO compensation. In contrast, audit quality positively affects the alignment among firm performance and CEO compensation. Since a higher quality audit gives the organization a realistic view. The control variable results also purported that financial leverage and firm age have no influence on the CEOs compensation but firm size has positive effect on CEOs compensation. This study contributes in future research on the Agency theory and pay related performance contribution.

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1. Introduction

Different authors used different theories to support their conceptual frame work and here we used Agency Theory to support our conceptual frame work. Usman and Akhters, 2015; Yahya and Ghazali, 2017 and Usman, et al., 2019 in their recent research used agency theory to support their works. The reason behind selecting this agency theory in our research is due to board of directors, board gender diversity and audit quality because they all are under the agency and they have direct link with performance and CEO compensation.
Pakistan is also facing the problem of unnecessary CEOs compensation. Although decrease in share price some companies are paying high remuneration to their CEOs suggested by (Alam, 2014). CEOs compensation is a questionable issue that stirs considerable discussion on whether CEOs are compensate properly both in level and in respect to firm performance and its qualities (Yahya & Ghazali, 2016).

To build a solid corporate governance structure, Agency theory plays a critical job in organization for the advancement or achievement of organization, shareholders and CEO interest ought to be on the equivalent folio. High or unjustified CEOs compensation is a noteworthy issue from most recent couple of years. In Pakistan, high or unjustified CEOs compensation lead organization toward Agency problem. The reason for unjustified pay of CEO and rewards are due to not having association among firm performance and the CEOs compensation. To create a solid corporate administration structure, the opposing situation will be decreased among investors and CEOs through alignment of firm performance with CEOs compensation. On the basis of research problem, some research questions are constructed for the current study as:

- Does agency relationship have any significant impact on firm through alignment of firm performance with CEOs compensation?
- Is there a positive effect on CEOs compensation through alignment of firm performance with CEOs compensation?
- How moderating variable affects the alignment of firm performance with CEOs compensation?

The purpose of this study is to investigating the effect of the agency theory on chief executive compensation through alignment among firm performance and CEO compensation. Moreover, check that how these moderating variables like board independence and board Gender diversity as board characteristic and Audit quality effect on connection among firm performance and CEOs compensation. In order to achieve this purpose, the research objectives of this study are:

- To examine the significant impact of agency relationship on firm through alignment of firm performance with CEOs compensation.
- To determine the positive effect on CEOs compensation through alignment of firm performance with CEOs compensation?
- To determine the moderating Variable effect on the alignment of firm performance with CEOs compensation

This research will contribute to the literature by expanding further existence research and also has potential significance as follow:

- By alignment of firm performance with CEOs compensation with different moderating variables like Board characteristics (Board independence, Board gender diversity) and Audit Quality in context of Pakistan.
- The research will help to build up the sound governance structure in the organization for alleviating the clashes among CEOs and investors by aligning firm performance with CEOs compensation.
The introduction arrangement of this study is as per the following. Firstly, the theoretical framework on the Impact of Dividend paying behavior and corporate governance with control variables on company performance is contemplated in the literature review section. The research methodology is then clarified by the findings and discussion. At last, the findings are outlined followed by restrictions and suggestions for future study.

2. Literature Review

Distinctive studies are conducted in past to check the association between firm performance and CEO compensation and find a positive relationship between them. In the Pakistan, there is negative relationship between firm performance and CEO compensation and the reason behind this poor relationship is due to poor corporate governance structure. It has been discovered that corporate governance structure is unquestionably associated with performance of organization (Javid and Iqbal, 2008). Usman and Akhters, (2015 stated that diverse market environments and weak corporate governance structure are the reason for not having association between firm performance and CEO compensation.

The firm ought to build up a compensation policy as indicated by the capacities of their CEOs. Remuneration strategy of administrators was one of the significant matter of financial calamity in 2008 suggested by (Blinde, 2009). Mostly CEOs are concentrating on transient goals, yet not concentrate on long haul targets for conceivable development (H, A fotouh, 2010). Developing countries are the most part of confronting the issue of irreconcilable circumstance among principal and agents. Pakistan is likewise confronting the agency issue. In Pakistan, the problems have been disclosed the indefinable compensation of Chief executives indicated by (Alam, 2014). To check the validity of relationship among firm performance and chief executive compensations and in addition on CEO compensation some variables are used like Board independence and board gender diversification as Board characteristic and Audit quality.

2.1 Empirical Literature Evidences about variable

2.1.1 Agency Theory

The agency literature has propelled in multi-dimensional spheres such as empirical dimension oriented towards positive agency theory and mathematically complicated agent-primary literature (Shapiro, 2005). According to (Eisenhardt, 1989) both these dimensions of literature use cost minimizing reiteration regarding agency relationship under equal set of expectations and resolve the difficulty of contracting and modeling the effects of quite a number of aspects on the agreement among two groups.

The significant research has primarily emphasizes the identification of the situations under which the agent most likely conflicts with the principal and seeks to define and improve the governance set-up to minimize the agent's likelihood of self-interested approach (Eisenhardt, 1989). Under different situations, the agent principal studies usually include rational reasoning and statistical proof. Moreover, agent principal literature has a thorough understanding and extra interest in favored unscientific conclusions.
2.1.2 CEOs Compensation

To understand the CEOs compensation, there are a lot of researches are conducted on this topic. Though, optimal contracting method which has been taken from principal and agent relationship is majorly used approach. (Bebchuk & Fried, 2003). Named this as “authentic story” which opposes the idea to use CEO’s compensation in order to get the concerns of agent and organizations in same line so that organization’s issues are alleviated by arranging the concerns of both groups.

The Chief Executive compensation has taken on significant importance and development in the study on corporate finance and the reason behind this attending so much consideration is due to significantly increase. CEOs compensation is combination of different thing. CEO compensation is combination of salary and bonus (Kim & GU, 2005). In spite of Jarque (2008) used CEOs compensation that includes things like stock grants, severance and retirement benefits, and insurance and expense accounts. Yahya and Ghazali (2017) pointed out that abnormal increase in executives’ compensation with respect to stock bonuses and cash along with practices regarding ethical issues attracted much attention.

2.1.3 Firm performance and CEOs compensation

The study is pertaining to corporate finance, CEO compensation has become of significant importance. Several researches were performed to investigate the linkages among the pay related performance of CEO. In accordance with Gibbons and Murphy (1990) and Jensen, and Murphy, 1990, there is no significant link of chief executive pay and rewards with firm performance while on other side there are many who propose that there is correlation (Hall & Liebman, 1998). Hence there is a need for further research to enhanced appreciate the understanding of compensation to firm performance.

In context of Pakistan, there is no connection of firm performance with CEO pay and rewards. (Shah, et al., 2009) Locate that there is no sturdy connection of variables regarding firm performance with remuneration of CEO by using 114 KSE companies. Additionally, (Anjam, 2011) demonstrate that Pakistani listed companies are not connected with firm performance. (Usman et al., 2015) Point out the performance of the board has no meaningful influence on compensation for Chief executives. Unlike the theory of agencies, most of the research applicable on the compensation from CEOs and firm performance in Pakistan emphasizes that compensation from the CEO and firm performance are not substantially associated. But on the other hand, Yahya and Ghazali, 2017; Yahya and Ghazali, 2016 in their analysis concluded that Chief Executive Compensation positively attached with firm performance in financial sector as well as non-financial sector of Pakistan.

The alignment among firm performance and CEO compensation has insignificant effect in context of Pakistan. There is no huge relationship of firm execution factors with CEO remuneration suggested by (Shah, et al., 2009). Essentially, discover in Pakistan that documented organizations have no association with firm execution that is observed by (Anjam, 2011).The board capability impacts the CEO pay and has inverse impact on theory of agency. There is a direct relation among firm execution with CEO remuneration in term of both financial and non-financial firm of Pakistan (Yahya and Ghazali, 2017); (Yahya and Ghazali, 2016).
2.1.4 Corporate Governance

(Daily, et al., 2003) stated that corporate governance as “the dedication of the large uses to which organizational sources may be deployed and the resolution of conflicts a few of the myriad contributors in businesses”. Thus, the mean of corporate governance is to articulate successful internal and external processes that enforced to enhance firm performance, alleviate issue of agencies, and put the concerns of principal and agent into one line to protect the concern of shareholders. (Gillan, 2006) Say that there are several governance structures for this purpose tha can majorly be classified as internal governance mechanism and external governance mechanism. Moreover, according to Walsh and seward, 1990; Clarke, 2007 these governance mechanisms mainly focus on effective board of directors, independent directors of board normally non-executive directors, effectively articulation of compensation policy and compensation plans that can keep agents inspired to do job in greatest concerns of the investors interests, develop the sense of ownership and discipline.

Articulate that the significant elements to formulate internal governance mechanism normally are debt-holders, executives, employees, suppliers, customers and shareholders. The elements of external governance mechanisms normally are rules/laws/regulations, politics, pressure groups and markets (Gillan, 2006). As it is clear that external factors provide the environment in which company operates hence these factors and elements are of significant importance for developing the internal governance mechanism. As an inexperienced form of corporate governance presents close screening and supervision of abuse, total CEO compensation is possibly low in the existence of rigorous corporate governance. Alternatively, weak corporate governance will also make managers more effective in relation to board of administrators, main to extra having an effect on the pay-placing process for better compensation.

2.1.5 Board Gender Diversity

In organization, the idea of Gender Diversity has taken the critical consideration. Including women on the board significantly affects firm decision and procedures. Distinctive explores are led in the past to check the weight of including women on the board and his effect on firm performance and CEO compensation. The board gender diversity contributes altogether too corporate performance through its collaboration on the corporate board (Alabede, 2016). Earlier period work on the equity of gender in board showed that women in the board are strengthening the control of boards (Campbell and Minguez, 2008) female have capabilities to do well in difficult situation. Francoeur, et al. (2008) found that gender diversification on board advanced the fiscal performance in complex situation of firms.

Pakistan also faces one of this kind of administration difficulties. But alternatively board gender diversification insignificantly correlate with firm performance and CEOs compensation alignment like (Usman, et al., 2019) locate a unenthusiastic correlation among ladies on the board and chief executive salaries and firm performance. It was supposed that gender diversification on the board could contribute to decrease firm performance due to unenthusiastic outcomes, such as widening relationship differences and low communication and participation. (Pletzer, et al., 2015). Women on the board have no effect on CEOs returns (Adams and Ferreira, 2009). Gender diversification has no influence on firm performance (Post and Byrr., 2015). Alves, et al., (2016) found that board gender diversification has no critical influence on firm performance.
2.1.6 Audit Quality

High quality audit decreases intentional and accidental mistake if it is solid. It can play an essential corporate management job by giving confirmation of the nature of freely exposed accounting information. In addition, external auditor add to budgetary detailing solid quality by giving a free assessment of the accuracy and rationality with which fiscal summaries speak to the after effects of tasks, capital related position, and money streams in similarity with General accounting standards (Abdel Khalik & Solmon, 1988).

Sudarshan and Todd (2012) stated the impact of auditor experience on managerial pay related performance shall be analyzed in their study. And they find clear facts that if industry expert audit business so they offer equity-based incentives to their CEOs. Past studies showing that improved auditing knowledge decreases the incidence of earnings management and offers more accurate audit tests. The consistency of the outer review is measured through the combination of Big4 analysis rehearsing firms (Rahman, 2017). It is usually shown that BIG4 analysis has a higher standard of performance. Fernando and Thevaranjan (2017) determined that audit quality develop the earning in an organization but also improve the earning in CEO compensation.

2.1.7 Board Independence

Oxelheim and Randoy (2003) claim that external managers on board will boost the status of the business they represent on the monetary market, resultant in higher performance of the budget. Essentially Chinese corporate administration's major issues since a decade ago are the weak independent director and subcommittees in registered firms (Tenev and Brefort, 2002). To assess these concerns, the new organization governance code introduced in 2002 mandates each licensed company by having 33 per cent independent director on the board by June 2003 in any case. There is enormous inscription on the board just as there is outside owner that tend to be better in screening and supervising the executives (Dechow, et al., 1996). Provide proof that board independence is connected to persuasive administration and good firm success (Brick, et al., 2006). Although others records no connection among the external director and the rate of profit of the Board (Dechow, et al., 1996); (Beasley, 1996). For example (Klein, 2002) explains board independence is conversely correlated with optional gatherings but also decreases in board independence are associated with enormous increases in optional accumulations. Furthermore, (Peasnell, et al, 2000) consider that the board's level of exiles are counter to the degree of compensation that optional collections extend to avoid exposing misfortune or reductions in income.

2.1.8 Control Variables

Distinctive investigations identifying with the pay–performance agreement or in determination of chief executive pay with distinctive control variables. In this research, we used firm size and firm age and last financial leverage as control variables. Extensive organizations who are working from many years can appreciate economies of scale because of the more prominent assortment of abilities and in the long run they pay high to their CEOs. Numerous researcher found the positive connection among firm size and CEO pay (Usman et al., 2015); (sliger, 2011). (Yahya and Ghazali, 2016); (Yahya and Ghazali, 2017) found a negative link among firm size
and CEOs pay. Firm age has no impact on CEOs compensation (Loderer, 2010). Moreover, financial leverage has positive relationship with CEOs compensation (Kuo, 2015).

2.2 Research Gap

This study will show a model by aligning firm performance with CEOs compensation and check the impact of moderating variable like Board characteristic (Board Gender Diversity, Board independence,) and Audit Quality on relation among firm performance and CEOs compensation. Earlier researches are conduct on the pay related performance link in Pakistan and didn’t find any significant effect. The reason behind this study is check the correlation among firm performance and CEOs compensation and different moderating variable effect on this pay related performance link. That plays a very important role in creating a strong governance structure for corporations.

The involvement of founding CEO and multiple CEO will also continue to increase the board's rewards. Compensation of CEO seems to greater caused with the resource of company period rather than company overall performance. Regarding have an impact on of CEO qualities on compensation of CEO, best CEO term seems to have pleasant effect on compensation of CEO. To see connection among CEO compensation and organizational performance in the Indian context in some different ways, using three hundred and twenty four manufacture firms of India's transfer stage data within 365 days in 2005 years (Ghosh, 2010). Although regulating from enterprise results, he is well-known that firm average performance is noteworthy influence on CEO pay, but the extent is outwardly low. He further notes that larger organizations are paying more to their Chief executives. More research reveals that group-related businesses, Compared with state-owned corporations, private businesses and foreign organizations have a higher CEO salary.

The connection between CEOs compensation and firm performance does not locate significant effect in context of Pakistan. (Shah, et al., 2009) Find no huge connection of firm performance factors with chief executive rewards and pay. (Kashif, S., and Mustafa, 2012) By checking Chief executive compensation factors in context of Pakistan, too, as do (Shah, et al., 2009) Only 66 own family-owned corporations indexed in KSE for the period 2010 and 2012 are cognizant. They locate the CEO pay is conditioned to the most efficient company duration using pooled version all other factors including overall market performance, independent directors, Chief executive duality and firm size stated to having no effect on pay and rewards of CEO. But (Kashif, S., and Mustafa, 2012) have similar problems as (Shah, et al., 2009) too. (Kashif, S., and Mustafa, 2012) also does not find any association between firm performance and CEO compensation like Shah et al. (Usman, et al., 2019) locate a unenthusiastic correlation among ladies on the board and chief executive salaries and firm performance from Pakistan point of view. On the other hand Yahya and Ghazali (2017) in their research find positive correlation between firm performance and CEO compensation and also find positive influence of board independence and board size, while CEO duality negatively impact this relationship. By utilizing all we see small number of quantities of research find positive correlation between firm performance and CEO compensation by using different moderating variables that’s why we used different moderating variables like Board characteristics and Audit quality to check the pay related performance link.
3. Research Methodology

The research methodology of current study is elaborated in detail as under:

3.1 Sample and Data collection process

Data and sample size are important part of research because all research is based upon the data and sampling which we are using in our study. Due to some systemic and monitoring diversification among financial and non-financial firms which will increase the question of heteroscedasticity (Fama and French, 1992). Five hundred eighty two firms are registered on PSX with market capitalization is 95 billion dollars. One hundred fifty one companies are linked to the (insurance, banks, leases etc.). Therefore, the analysis concentrated on the majority of 431 nonfinancial companies. However, due to non-accessibility or lack of disclosure, several firms were removed from the data through data cleaning process. The final selections of 100 companies listed on the PSX are chosen for the study. Table 1 can also be used for further elaboration. Therefore, this study considered the 2013 to 2017 period. Accordingly, the study's overall firm-year observations are 500 (100 × 5). Furthermore, data is gathered from organizations annual report. In addition, the implementation of the 2012 modernized Corporate Governance Code improved corporate accountability. That obligated Pakistani listed companies to reveal chief executive compensation details and directors. Details about corporate governance, bonus, business attributes, and results can be derived from the company's yearbook.

The moderating variables like board independence and board gender diversity as board characteristics and audit quality can impact the compensation of CEO. And thirdly, test the interaction effect of firm performance and moderating variables on CEO compensation. Moreover control variable firm size, financial leverage and firm age are used and check their effect on chief executive compensation.

3.2 Hypothesis Development

Based upon literature, research hypothesis of this study are given as below:

Hypothesis 1: Firm performance positively affects the CEOs compensation.

Hypothesis 2: Board independence positively moderates the connection among firm performance and CEOs compensation.

Hypothesis 3: Board gender diversity negatively moderates the connection among firm performance and CEOs compensation.

Hypothesis 4: Audit quality positively moderates the connection among firm performance and CEOs compensations.

Table 1: Organization diversification, and sample size available

<table>
<thead>
<tr>
<th>Industry</th>
<th>No. of Companies</th>
</tr>
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<tbody>
<tr>
<td>Automobile</td>
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</table>
3.3 Conceptual Model

This conceptual framework work shows the connection of firm performance with chief executive compensation by building correlation among them. Secondly, test how these moderating variables like board independence and board gender diversity as board characteristics and audit quality can impact the compensation of CEO. And thirdly, test the interaction effect of firm performance and moderating variables on CEO compensation. Moreover control variable firm size, financial leverage and firm age are used and check their effect on chief executive compensation. The conceptual model is shown in Figure 1.

**Figure 1: Conceptual Mode**
In this study, the mathematical model is as follows

\[
\text{CEO}_t = \beta_0 + \beta_1 \text{FP}_t + \beta_2 \text{BIND}_t + \beta_3 \text{AUDQ}_t + \beta_4 \text{BGEND}_t + \beta_5 \text{FPBIND}_t + \beta_6 \text{FPAUDQ}_t + \beta_7 \text{FPBGEND}_t + \beta_8 \text{AGE}_t + \beta_9 \text{FSIZE}_t + \beta_10 \text{FL}_t + \epsilon 
\]

In this statistical technique model CEO is used as CEOs compensation which is dependent variable and it is the ith firm at time t, Firm performance is used as FP, BIND used as board independence; AUDQ is used as Audit quality, BGEND used as Board gender diversity, FPBIND represent interaction effect among firm performance and board independence. FPAUDQ represent interaction effect among firm performance and audit quality. FPBGEND represent interaction effect among firm performance and board gender diversity. FSIZE represent Firm Size, AGEE represents Firm Age, FL represents financial leverage, and \(\epsilon\) is the random error term.

### 3.5 Measurement of variables

The variables description is given as under:

<table>
<thead>
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<th>Variables</th>
<th>Measurement</th>
<th>Symbols</th>
<th>Proxy</th>
</tr>
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<tbody>
<tr>
<td>Firm performance</td>
<td>Tobin Q</td>
<td>FP</td>
<td>Market value divided by the total assets.</td>
</tr>
<tr>
<td>CEO compensation</td>
<td>CEO pay and benefit</td>
<td>CEOC</td>
<td>Log of CEO’s salary and benefit</td>
</tr>
<tr>
<td>Moderating variable</td>
<td>Audit quality</td>
<td>AUDQ</td>
<td>Big 4. Ferguson KPMG Taseer Hadi Ernst &amp; young Deloitte</td>
</tr>
<tr>
<td></td>
<td>Board independence</td>
<td>BIND</td>
<td>Percentage of independent directors on the board</td>
</tr>
<tr>
<td></td>
<td>Board gender diversity</td>
<td>BGEND</td>
<td>Percentage of women on the Board</td>
</tr>
<tr>
<td>Control variables</td>
<td>Firm’s age</td>
<td>AGE</td>
<td>No. of years of working from start to the current year</td>
</tr>
<tr>
<td></td>
<td>Firm’s size</td>
<td>SIZE</td>
<td>Log of sales</td>
</tr>
<tr>
<td></td>
<td>Financial leverage</td>
<td>FL</td>
<td>Total debt divided by shareholder equity</td>
</tr>
</tbody>
</table>

### 4. Analysis of Results

This section included the statistics of descriptive analysis, correlation analysis, and regression analysis, removing autocorrelation by taking one period leg of dependent variable, removing autocorrelation without taking one period leg of dependent variable, hypothesis testing and last Answering the research question.

#### 4.1. Descriptive analysis

It is disclosed that the total CEOs' compensation is 3.73. Nevertheless, the lowest value indicates the least amount firms pay to their chief executive because of the brutal insufficiency, and the highest value paid to the CEOs as compensation is 5.83. Table show that Standard deviation of
CEO compensation 1.36. All variables were matched with their skewness and kurtosis with appropriate range between −2 and +2 (George & Mallery, 2010). Skewness of CEOs compensation is respectively negatively skewed -2.03 and kurtosis of CEOs compensation is 6.10. Furthermore average of firm performance is 0.10 and lowest firm performance is 2.13 and highest firm performance is 9.73. Skewness and kurtosis are respectively 11.24 and 141.44. In firm performance distribution is negatively skewed. Moreover statistics show that highly representation of Audit quality 61% in the board in PSX listed companies. Lowest value of Audit quality is 0, and highest value of Audit quality is 1. Standard deviation of value is 0.487 and skewness and kurtosis are respectively -0.46 and 1.21. In spite of board independence there is low level of representation 28% in the board of independent director. Board independence lowest value is 0 and highest value is 6.00. Standard deviation of board independence is 0.48. Skewness and kurtosis are respectively 6.71 and 7.21.

Table 3: Descriptive statistics of variables

<table>
<thead>
<tr>
<th></th>
<th>CEOC</th>
<th>FP</th>
<th>AUD Q</th>
<th>BIND</th>
<th>BGEN D</th>
<th>SIZE</th>
<th>AGE</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.7284</td>
<td>0.108</td>
<td>0.613</td>
<td>0.288</td>
<td>0.0928</td>
<td>6.835</td>
<td>40.174</td>
<td>2.509</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.8228</td>
<td>9.734</td>
<td>1.000</td>
<td>6.000</td>
<td>0.5714</td>
<td>8.505</td>
<td>157.000</td>
<td>81.11</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.0000</td>
<td>2.130</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0000</td>
<td>2.777</td>
<td>5.000</td>
<td>-32.00</td>
</tr>
<tr>
<td>Std Dev.</td>
<td>1.3593</td>
<td>0.687</td>
<td>0.487</td>
<td>0.437</td>
<td>0.1333</td>
<td>0.762</td>
<td>22.387</td>
<td>7.33</td>
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<tr>
<td>Skewness</td>
<td>-2.0379</td>
<td>11.247</td>
<td>-0.465</td>
<td>6.719</td>
<td>1.3678</td>
<td>-0.791</td>
<td>1.5184</td>
<td>6.33</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>6.1022</td>
<td>141.44</td>
<td>1.217</td>
<td>72.19</td>
<td>4.0157</td>
<td>5.317</td>
<td>8.545</td>
<td>57.60</td>
</tr>
</tbody>
</table>

Furthermore, including women on the board and their role is less because the average number of women on board is 9% and highest value is 0.571 and board gender diversity lowest value is 0. Standard deviation of board gender diversity is 1.33 and skewness and kurtosis are respectively 1.36 and 4.01. Firm size used as control variable and the average of firm size 6.83. Firm size is highest value 8.50 and the lowest value is 2.77. Standard deviation of firm size is 0.76 and Skewness and kurtosis of firm size are respectively -0.79 and 5.31. Firm age average value is 40.1 and highest and lowest value of firm age is respectively 157 and 5. Firm age Standard deviation is 22.38. Skewness value of firm age is 1.51 and kurtosis is 8.54. Financial leverage average value is 2.50. Furthermore highest and lowest value of financial leverage is 81.11 and 32. Standard deviation is 7.33. Skewness and kurtosis are respectively 6.33 and 57.60.

4.2. Correlation Analysis

Correlation is process of statistic evaluation through which we are able to examine the strength and weakness of the association among two variables. This analysis is useful when investigator want to build a possible connection between variables. Correlation consist of two types positive and negative. In positive correlation there is direct relationship between variables which means that if boost in one variable cause boost in others variables and decline in one variable also decline in other variable. But in negative relationship its indirect effect like at one side is increase other side is decrease and if one side decrease other side is increasing. There is also no
question of multi linearity as correlations among variables like we can see in table of correlation all variables values.

The result of correlation analysis is given in table 4.2. In this correlation analysis we check the association among firm performance and CEOs compensation and locate that 10.6 percent relationship between them. That show positive relationship between them. Moreover to find out the moderating variables effect of on the CEOs compensation we find that that Audit quality and Board independence Director are positively correlate with CEOs compensation but Board gender diversity negatively correlate with CEOs compensation.

### Table 4: Result of correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>CEOC</th>
<th>FP</th>
<th>AUDQ</th>
<th>BIND</th>
<th>BGEN</th>
<th>SIZE</th>
<th>AGE</th>
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<td>FP</td>
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<td>AUDQ</td>
<td>0.155</td>
<td>0.067</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIND</td>
<td>0.028</td>
<td>-0.019</td>
<td>0.126</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BGEN</td>
<td>-0.108</td>
<td>-0.052</td>
<td>-0.093</td>
<td>-0.118</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.453</td>
<td>-0.003</td>
<td>0.342</td>
<td>0.123</td>
<td>-0.114</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>0.015</td>
<td>-0.043</td>
<td>0.016</td>
<td>0.238</td>
<td>-0.084</td>
<td>0.027</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FL</td>
<td>0.069</td>
<td>-0.024</td>
<td>0.089</td>
<td>0.060</td>
<td>-0.069</td>
<td>0.153</td>
<td>-0.029</td>
<td>1</td>
</tr>
</tbody>
</table>

### 4.3 Regression Analysis

Regression analysis is set of statically procedure by which we can guess the association among different variable. By seeing this table we can guess the association among all variables. Like in start we check firstly the association among firm performance and CEOs compensation. Secondly we check moderating variables board characteristics and audit quality effect on CEO compensation if we used them as independent variables like To check their effect individually we separately check board independence and Board gender diversification effect on CEOs compensation as well as Audit Quality effect on CEO compensation. Thirdly we check the moderating impact of Board characteristics and Audit quality on the connection among firm performance and CEOs compensation. Last we check the control variables effect on CEO compensation.

### Table 5: Result of Regression Analysis

<table>
<thead>
<tr>
<th>Dependent Variable: CEO COMPENSATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Least Squares</td>
</tr>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>FP</td>
</tr>
<tr>
<td>AUDQ</td>
</tr>
<tr>
<td>BGEN</td>
</tr>
<tr>
<td>BIND</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
</tbody>
</table>
We use one year lag period of dependent variable CEO compensation for removing autocorrelation issues. In this table we can see the Durbin-Watson stat which is 1.72 that indicates that there is no autocorrelation issue between them. The calculation of the Durbin Watson (DW) is an autocorrelation test from an accurate relapse study in the residuals.

Table 7: Without taking one period lag

<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>FP</td>
<td>0.220447</td>
<td>0.079871</td>
<td>2.760048</td>
<td>0.0060</td>
</tr>
<tr>
<td>FSIZE</td>
<td>0.752208</td>
<td>0.067307</td>
<td>11.17581</td>
<td>0.0000</td>
</tr>
<tr>
<td>FL</td>
<td>0.005897</td>
<td>0.006092</td>
<td>0.967996</td>
<td>0.3335</td>
</tr>
<tr>
<td>FAGE</td>
<td>0.000974</td>
<td>0.002434</td>
<td>0.399939</td>
<td>0.6894</td>
</tr>
<tr>
<td>C</td>
<td>-1.497690</td>
<td>0.476480</td>
<td>-3.143237</td>
<td>0.0018</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.216195</td>
<td>Mean dependent var</td>
<td>3.7462</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td><strong>0.724719</strong></td>
<td>S.D. dependent var</td>
<td>1.3453</td>
<td></td>
</tr>
</tbody>
</table>
Removing auto correlation in without taking leg period Durbin Watson stat show that 0.72 which show that there is auto correlation issue between different variables The calculation of the Durbin Watson (DW) is an autocorrelation test from an accurate relapse study in the residuals. The Durbin-Watson element should consistently have someplace of reward in the range of zero and four. An estimate of 2.0 means there's no distinguished autocorrelation in the example.

4.4 Hypothesis Testing

The least square regression approach suggested that firm performance has a positive effect (0.0001, p < 0.01) on chief executive compensation. So, the research hypothesis H1 in which the firm performance is positively and significantly affect the CEOs compensation is accepted. But on the other side occurrence of the independent director on the board has negatively affect the association among firm performance and CEOs compensation (0.9756, p > 0.01). So the H2 hypothesis board independence positively moderates the association among firm performance and CEOs compensation is rejected. The women on the board has negative effect on the pay related performance (0.4134, p > 0.01). So the H3 that board gender diversity has negatively moderate the association among firm performance and CEOs compensation is accepted. And last the Audit Quality significantly and positively affect the pay related performance (0.0001, p < 0.01). Because a better quality Audit provide equity based compensation. So the hypothesis that is Audit quality positively moderates the association among firm performance and CEOs compensation is accepted.

Moreover control variables have different result like firm size is positively affect the CEOs compensation (0.000, p < 0.01) but on the other hand financial leverage has negatively affect the CEOs compensation (0.57, p > 0.01)and firm age also has no significant effect on the CEOs compensation.

5. Discussions and Findings

This research investigates the effect of Board characteristics (Board Independence and Board Gender Diversity) and Audit quality on alignment among firm performance and CEO compensation in Pakistan's non-financial firm sector. Factual evidence suggests that firm’s performance is linked positively to chief executive compensation close to the agency theory's pay-performance correlation proposal. Secondly check the effect of moderating variable on the alignment of firm performance and CEOs compensation. Independent board of director on the board doesn’t find any significant effect on the correlation among firm performance and CEOs compensation. Even though (Yahya and Ghazali, 2017) find positive influence on alignment of firm performance and CEOs compensation.

The facts and figures reveal that independent directors in Pakistan have insignificant effect on the alignment among firm performance and compensation of CEO. Furthermore, the gender diversification also has negative and insignificant impact on alignment among firm performance and CEO compensation. Moreover, audit quality has positive effect on the alignment among firm performance and CEOs compensation because a better-quality audit provide factual and reasonable view of the organization related to the organization performance. Control variable results also purported that financial leverage has negatively associate with CEOs compensation.
The outcome reveals that firm size positively influence the CEOs compensation. Moreover firm age has negatively associated with CEOs compensation.

5.1 Practical and Theoretical Implications

In this study, the agency theory contended that problems between principal agents can be alleviated if the CEO pay and benefit are adjusted with firm performance (Jensen and Meckling, 1976). CEO compensation on Pakistan's capital market is discovered to be adjusted to firm performance. Association among them has positive effect on CEO compensation. The conclusion are in accordance with the research of (Yahya and Ghazali, 2016) and (Yahya and Ghazali, 2017), but alternatively, From Pakistan's estimation, specific work has either discovered any significant link among firm performance and CEO compensation (Anjam, 2011); Solitary et al 2015; (Shah, et al., 2009). Moreover some researcher found a negative connection among firm performance and compensation of CEO (Usman et al., 2015).

The considerable distinction in this study is due to the use of board information before the execution of overhauled Code of Corporate Administration presented in 2012. Yahya and Ghazali, (2015) Implied this overhauled Code strengthened corporate governance in this research. The CEO compensation is measured by firm overall performance. But operating and market performance is used to measure the CEO pay and other benefits (Yahya and Ghazali, 2016)(Yahya and Ghazali, 2017). That is a strong indication that Chief executive Compensation all over Pakistan is adjusted with market performance because bookkeeping-related indicators could be regulated via executive (Ball, 2006) and (Rayburn, 1986). Adjusting market performance with CEO pay and benefits could confirm the hypothesis of optimum contracting in a concentrated market for administrative ability rehearsals in Pakistan capital market (Frydman and jenter, 2010).

Furthermore, the facts concerning the independent board’s role in pay-performance association are constant with the proposal (Van Essen, et al, 2015). We find that in Pakistan, the independent directors are having a negative impact on the alignment among firm performance and compensation of CEO. In addition, the board's gender diversity has a negative impact on the connection among firm performance and CEO pay and rewards is due to the tokenism. As well, the quality of the audit has a positive impact on the correlation among firm performance and compensation of CEOs because a better quality audit provide accurate and realistic view of firm related to company performance. The results also purported that financial leverage has also negative effect on the CEOs compensation. The size of the board can not explicitly affect chief executive compensation but it may make stronger the connection between operational performance and chief executive compensation.

Even though no previous research has used optimum board size to make sure variability in chief executive compensation, results are somewhat correlated with study of (Van Essen, et al, 2015). They also suggested a favorable impact of the board size among firm performance and CEO compensation. Board size effect the connection among operating performance and CEO compensation, however does not affect the relation among market performance and CEO compensation (Lipton and lorsch, 1992). And last by checking the firm age effect on the compensation of CEO, we locate that firm age has no effect on CEO compensation.
5.2 Limitations of Study and Future Directions

The research was not ready to incorporate a wide range of CEOs qualities and board characteristics (for example CEO residency, CEO maturity, CEO training, monetary skills, company activity, and so on.). Getting this data is complicated in light of the fact that it isn't accessible openly as an optional source. In this way, this investigation inspected connections by which information was easily accessible in financial report. More studies are required to provide an additional top to bottom group of learning into the determinants of CEOs compensation alongside different arbitrators with regards to Pakistan. What's more, the investigation can be additionally investigated different Asian nations to uncover the relevance of the present model on other capital markets. Moreover, the division insightful investigation is likewise conceivable inside the reference of Pakistan.

The present analysis is investigating only specific performance metrics of pay for CEOs. The investigation could turn out to be increasingly important if analysts compare the model with some other bookkeeping and support execution-based interventions (specifically, Monetary Value Included (EVA) and Tobin's Q). Likewise, a number of different mediators ought to be tried in this setting to guarantee their job in adjusting pay–performance connect as this examination doesn't locate any compelling arrangement instrument among firm performance and chief executive salary and other benefits. Researches may also look at the character of various ownership systems and features of directors like driving factors in the model being proposed. Likewise, the investigation did not find the aggregation of big top, medium top, and tiny top companies into portioned market capitalization. Accordingly, future analysts should proceed with research here by dissecting these gatherings particularly. This research used Pakistan stock exchange non-financial firm but in future more research should be conducted on financial and non-financial firm of Pakistan.

References


Murphy, Kevin J. 1999 Orley Ashenfelter and David Card, eds. Amsterdam: North


