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## **Assessing the Effect of Managerial Power on Firm Performance through the Perceptual Lens of Executive Remuneration**

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### **ABSTRACT**

Executives or top management in any organization play the central role in designing firms' policies including their own remuneration, investments and capital related decisions. Due to their prime importance, executives have greater access to all important information related to organizations. If such persons have greater control over the board or organization, it alludes as managerial power. Concisely, if managerial power is high then the management may misuse such information for their personal benefits. Therefore, considering the importance of managerial power, the current study aims to investigate the effects of managerial power and executive remuneration on firm performance. In order to empirically test the proposed relationships, the current study applied PLS-SEM approach by using the data of Sugar & Allied industry of Pakistan Stock Exchange for the year 2014. The results of the current study indicated that direct effect of managerial power on firm performance did not exist, however, the empirical findings showed that managerial power had a significant effect on executive remuneration. Furthermore, managerial power also significantly influenced the firm performance through the executive remuneration or remuneration mediated the relationship between managerial power and firm performance. Therefore, the current study suggests that firm should take necessary actions to reduce

the managerial power and design the pay of top management in a way that any harmful action of managers against the firm's wealth would significantly affect their own benefits.

*Keywords:* Executive remuneration, firm performance, managerial power, reflective & formative measurement scale

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## INTRODUCTION

As the top management or executives are involved in all major decisions of any organizations, their sincerity and attention are critical to the success and failure of organizations. Due to their prime importance in any organization executives, they must be rewarded sufficiently and executive remuneration must be properly designed, because excessive remuneration can lead to excessive risk-taking and persuade executives towards corporate voracity. Therefore, executive remuneration gets more importance and public interest after global financial crises. These financial crises emphasize on developing a regulatory framework that will provide greater accountability and transparency of executives' remuneration. Moreover, shareholders, stakeholders, institutional investors and the public at large are more concerned about the remuneration of executives and directors. Thus, governments of all OECD countries focus on introducing a mechanism that will better align the interest of executives with shareholders and firm's performance (Ozkan, 2011). In short, executives' remuneration is a critical element of a firm's internal governance system.

According to motivation theory, managers can be motivated through their rewards (Jensen & Murphy, 1990), as rewards encourage them to give their best in order to achieve firms' objectives and take decisions which are beneficial for shareholders (Jensen & Meckling, 1976). Consequently, remuneration plays a critical

role in retaining and attracting competitive people (Canyon, 2006). Canyon (2006) further added that satisfactory executives' remuneration motivates them to effectively implement firm strategies in order to achieve its goals efficiently (Canyon, 2006). In general practice, the key elements of executive's remuneration are: fixed remuneration (typically consisting of a salary), bonuses (generally include all the short-term rewards), long-term incentives including all stock options and deferred stock remuneration, others including all the other remuneration i.e. insurance, retirement benefits, club membership and so on (Combs et al., 2007).

Additionally, most of the existing studies of executive's remuneration have been motivated by theories of firms. According to the neoclassical economic theory, profit maximization is the central objective of every organization because it generates monetary benefits for both shareholders and managers (Jensen & Meckling, 1976). Though, managers or executives are in power to control the firm when firms are owned by separate owners than managers. Separation of ownership creates sufficient space for executives to work for their own interest at the expense of shareholder rather to focus on value maximization of the firm (Jensen & Meckling, 1976). Crudest classic agency problem refers that objectives of principal and agents are not consistent, therefore, managers may adopt optimistic behavior to maximize their own wealth (Jensen & Meckling, 1976). Hence, extraordinary remuneration of the executives

can be helpful to discourage optimistic behaviors, and it enhances the incentive remuneration in various forms (Ozkan, 2011). Besides, in the absence of attractive incentives executives are unwilling to work for the value maximizing of principals. In this relation, Ozkan (2011) also said that the top officials apparently had the most control over firm's decisions and accordingly their remuneration ought to be most firmly tied to the performance of the firm. Moreover, the chief executive's remuneration is more sensitive to performance than the remuneration of other executives (Wallsten, 2000).

Most of the previous studies come from developed countries (Gregory-Smith, 2012; Li & Qian, 2011) and emphasise on optimal contracting approach, thus, the results of these studies are not generalizable especially for underdeveloped countries such as Pakistan. Therefore, the key intention of the authors in the current study is to provide a simple, theoretical and empirical analysis of how managerial power and executive remuneration affects firm performance in Pakistan. Moreover, the current study is different from other studies as it used data from listed companies in Pakistan stock exchange to investigate the proposed model. As there is limited existing literature on executives' remuneration and supporting theories in the context of Pakistani firms. Secondly, this study focuses on managerial power to analyze its influence on remuneration by using a comprehensive set of dimensions that reflect the managerial power. Hardly any study provides evidence

that managerial power strongly affects firm performance. The current study is trying to bridge this gap by investigating the relationship between managerial power and firm performance and is expecting a significant direct and indirect effect of managerial power on firm performance. This study also proposes a significant relationship between executive remuneration and firm performance as well as this study also investigates the mediating role of executive remuneration between managerial power and firm performance.

## LITERATURE REVIEW

Managerial power depends upon various factors, these factors are elaborated in this section. According to Bebchuk et al. (2002), managerial power approach as part of agency issues refers that executives artfully use their remuneration for granting themselves more rents. Managerial power theory has its roots in 1932 when Berle and Means proposed that political and social forces played an important role in executives' remuneration arrangements. Moreover, Schneider (2013) argued that CEOs had greater power when independent directors were appointed by the CEOs. They had the same status, or they had cross board (interlocking) relations and directors were affiliated with each other through a specific social and psychological mechanism. Hence, such directors give sufficient space to CEOs and executives team to influence their own remuneration rather than to set remuneration using arm's length approach. According to Schneider (2013), most

powerful CEOs generally increase their own remuneration and directors with relational bonding with CEOs most habitually favor CEOs. In other words, CEOs are only able to significantly influence the board if there is a greater number of affiliated directors sitting on the board. For instance, an affiliated independent director may show sympathy with CEO due to the same status, or he/she is the friend of CEO (Bebchuk et al., 2002). In this case, such directors might be in gratitude to the CEO in return (Li & Qian, 2011). Similarly, Larcker et al. (2005) added that the affiliation of CEO with remuneration committee members led to high remuneration and as a result, the poor performance of the firm occurred. In this connection, Callahan et al. (2003) reported a positive relationship between CEOs' involvement in the selection process of directors and lower firm performance.

However, affiliated directors taking a stand against the poorly performing CEOs might be able to fire such CEO. On the other hand, if the CEO performed effectively, directors most commonly tend to support the CEO in every decision (Bebchuk et al., 2002). According to Choe et al. (2009), the excessive pay of executives that they extract due to their power refers to the rents. Admittedly, managerial power and rent extraction are interlinked, therefore, followers of managerial power approach reported a relationship between managerial power and rent extraction (Bebchuk et al., 2002; Chalmers et al., 2006). Consequently, if CEOs owned a large share of the firm then he will have more power to influence

the decisions of directors' nomination and on their governance quality (Pinto & Leal, 2013). Contrarily, low shares owned by the CEOs or executives lead towards lower managerial power and other block shareholders play a crucial monitoring role to discourage CEO power (Weisbach, 2006). A high percentage of shares owned by the chief executive tends to increase executive power and vice versa (Agrawal & Nasser, 2012; Weisbach, 2006; Bebchuk & Fired, 2004).

Furthermore, the board size also adds some restrictions on managerial power (Adams et al., 2005; Ozkan, 2011). Past studies provided enough evidence that larger board was unable to make quick decisions due to coordination problem and caused greater managerial power (Ozkan, 2011), as the size of board increased, the monitoring efficiency of that board decreased. Likewise, while talking about firm performance, scholars reported a positive relationship between firm performance and smaller boards (Conyon & Peck, 1998; Yermack, 1996). According to Li and Qian (2011), the norms of behaviors in most boardrooms are dysfunctional and this problem becomes severe with the large size of the board. In contrast, Fich and Shivdasani (2006) argued that a larger board and greater representation of insider executives on the board might increase the value of a firm. Researchers stated that a larger board was a source of diverse information needed to handle complex problems (Conyon & Peck, 1998).

Moreover, managerial power also increases with CEO duality, numerous studies reported that CEO duality had

some benefits as well as some potential rents (Brickley et al., 1997). However, the cost of CEO duality is greater than the benefits. Some studies reported a negative relationship between firm performance and CEO duality (Bhagat & Bolton, 2008). In contrast, Core et al., (1999) reported a positive relationship between duality and firm performance as well as several studies also found an insignificant relationship between CEO duality and firm performance (Adams et al., 2005). Additionally, CEO centrality is measured through the index of corporate governance developed by Bebchuk et al., (2007), their findings reported a negative relationship between CEO centrality and firm performance. They measured CEO centrality as the average of the top five executive's remuneration and power. Additionally, CEO tenure is also considered as another important factor of managerial power. Previous studies documented that longer tenure of CEOs had greater influence over the board as they had more information about the firms (Gregg et al., 2005). Longer-tenured CEOs have a greater affiliation with their team and board members. Thus, CEOs with entrenched tenure cause greater managerial power, which results in high remuneration and poor firm performance (Nourayi & Mintz, 2008).

Besides, numerous studies reported that firms used different non-financial and financial measures to determine the executive's remuneration, however, some firms preferred to rely on the single use of measures like economic value-added, earnings before interest and tax, net income

and sales growth (Murphy, 1999). They also asserted that executive's remuneration varies across industries, firms and countries. Likewise, pay practices sharply changed over time, with the passage of time, There were more pay practices and various forms of remuneration are introduced in businesses. according to Murphy and Zabochnik (2004), people expect that the increase in the pay of CEO is due to the increased power of managers over the corporate board. Their study further added that this increase in power allowed the CEOs to extract more rent from the company's shareholders and offered a market-based justification for the rent extraction because rent extraction was not justifiable in business. Thus, a good justification of excessive executives' remuneration is that the importance of general skills is increased, as opposed to firm-specific knowledge to manage modern corporations (Murphy & Zabochnik, 2004).

## Hypotheses Development

### Managerial Power and Firm Performance.

In the current study, number of proxies has been used to measure the managerial power. These measures are concisely discussed in the following section. A stream of strategic management studies highlighted the importance of top executives for firm performance. Followers of managerial power theory stated that when executives had greater power over the board, they had less concern with firm performance (Bebchuk & Fried, 2004) because their wealth is less sensitive to firm performance. However, only a few determinants of managerial power

has been studied in the existing literature with firm performance. For instance, some researchers provide evidence that there is a positive relationship between the smaller board and firm performance (Combs et al., 2007). Most of the boardrooms are dysfunctional in this phenomenon, directors are unable to criticize the CEO's decisions and this situation becomes more severe with the larger board size. Similarly, other studies found a positive relationship between less CEO appointed directors on board and firm performance (Bhagat & Black, 2001; Combs et al., 2007). Numerous researchers claimed that there is no relationship (Bhagat & Black, 2001) or a negative association between firm performance and the proportion of independent directors on board (Combs et al., 2007). Furthermore, Combs et al. (2007) also stated that independent outside directors were appointed to board for reducing the CEO power because outside directors were supposed to play the best monitoring role. Therefore, greater number of outside directors causes better firm performance. Moreover, Michel and Hambrick (1992) reported a relationship between executive functional background and firm performance. Consequently, with regards to the association between CEO duality and firm performance, a researcher reported a potential cost of duality. A negative relationship between firm performance and CEO duality was reported by Bhagat and Black (2001). While Adams et al., (2005) found that there was an insignificant relationship between firm performance and CEO duality. In

summary, previous studies were unable to provide any conclusion regarding the relationship between managerial power and firm performance, thus, current study hypothesized that:

**Hypothesis 1:** Managerial power has a significant effect on firm performance.

**Managerial Power and Executive Remuneration.** Additionally, two perceptions of executives' remuneration are discussed namely, optimal contracting view and rent-seeking view. Here, optimal contracts refer to the contracts in which executive's remuneration is decided under arm's length agreement between the corporate board and executives (Bebchuk & Fried, 2003; Jensen & Meckling, 1976). It is further added that such contracts are more effective to reduce agency problems. Contrarily, scholars of rent-seeking view said that in this type of contracts, CEOs and executives are able to influence their own remuneration process (Bebchuk & Fried, 2003). Thus, they maximize their own benefits at the cost of shareholders. Another study argued that under rent-seeking approach, more powerful and longer-tenured executives extract benefits from shareholders (Choe et al., 2009). Since CEOs have some power over board members and executives (Bebchuk & Fried, 2003, 2004; Bebchuk et al., 2002).

In other words, the rent-seeking process allows more powerful chief executives to grant themselves more secured pay (less pay-for-performance). The only limitation

in the rent-seeking faced by executives is outrage constraint that limits the massive increase in pay (Bebchuk & Fried, 2003; Choe et al., 2009). These arguments provide support for the implication of the managerial power theory. According to this theory, high managerial power leads towards low pay for performance sensitivity and increase in overall pay results in low firm performance. Thus, the managerial power theory has great importance in economic literature because it considers the power of top managers and then analyzes the ability of powerful managers to extract rents at the expense of shareholders (Bebchuk et al., 2002). Unfortunately, most of the existing literature paid more consideration to optimal contracting approach while studying executives' remuneration and hardly paid any attention to the managerial power approach (Bebchuk & Fried, 2006). Therefore, this study hypothesized that:

**Hypothesis 2:** Managerial power has a significant impact on executive remuneration.

**Executive Remuneration as Mediator.** According to agency theory, the board of directors is appointed to monitor the actions of executives, fairly reward them in terms of remuneration and put constraints on managerial power (Van Essen et al., 2012). Agency theory assumes that executives are self-interested (Jensen & Murphy, 1990; Van Essen et al., 2012) then it can also be assumed that directors may also be self-interested (Bebchuk & Fried, 2004). Thus,

self-interested directors do not play their monitoring role honestly due to their social bonding with the board and encouraging optimistic behavior of managers.

Moreover, managerial power theory stated that embedding of two important decision power authorities into one lead to more power (Ozkan, 2011) and CEOs with the dual role are more prone to extract rents from shareholders by manipulating their own pay contracts. Westphal and Zajac (1995) said that CEO with dual authorities had significant power over the nomination process of directors. According to Kaplan and Rauh (2010), CEO with more power could be able to change the pay contracts.

Furthermore, CEO tenure is another determinant of managerial power. Bebchuk and Fried (2006) stated that CEOs with longer tenure had more experience and information about the board and firm, thus, they were able to influence the decisions of the board of directors. Such CEOs, also influence the decision of remuneration committee. On the words of Yermack (1996), if remuneration committee was chaired by a director who was appointed after the appointment of CEO, such directors tended to feel sympathy with CEO and favored the excessive pay for CEO without any justification. Additionally, Gregg et al. (2005) reported a weak relationship between firm performance and longer-tenured CEOs.

Additionally, with regard to the board size, Bebchuk and Fried (2004) find that as the board size increases the performance of board starts decreasing due to the delay in decisions, lack of unity among board

members and lack of communication. Thus, following problems with the larger board allow CEOs to have more power over the board and they will have more control over their pay process (O'Reilly & Main, 2010; Yermack, 1996). Finally, the proportion of independent directors on the board critically examines the activities performed by the managers or CEOs with respect to their reward as independent directors are appointed to monitor the CEOs performance (Ozkan, 2011). Additionally, they align the executive's incentives with shareholder's interest in such a way that optimistic behavior also brings the cost to executives.

Conclusively, previous studies provide evidence for the direct relationship between managerial power, executive remuneration and firm performance. However, as per the literature review, no previous research study examined the firm performance using executive remuneration as mediator. Thus, following traditional wisdom behind the moderation (independent variables have a significant relationship with both mediator and dependent variables and mediator variable must have a significant relationship with the dependent variable), this study hypothesized that:

**Hypothesis 3:** Executive remuneration plays a mediating role between managerial power and firm performance.

## METHODS

This study used the data of Sugar & Allied Industry of Pakistan Stock Exchange. This sector comprises 34 firms and all the

firms are taken in the current study to test hypothesized relationships. In this regard, required data was obtained from annual reports, 4-traders, Bloomberg and from LinkedIn websites. As most of the firms did not provide their director's profiles, therefore, information related to corporate governance is obtained from other sources as mentioned above. Meanwhile, data of firm performance is extracted from annual reports of the firms, which were downloaded from the company's official websites for the year 2014. The current study used three measures of executive remuneration: equity remuneration (option and stock grants), fixed salary, and short-term remuneration (one-year bonus). Like the previous studies, this study used ratios of equity remuneration, short-term remuneration and fix salary to total remuneration. Then log of all these ratios was taken because the values were highly skewed. Executive remuneration includes remuneration of all top executives.

Moreover, firm performance is measured by using ROA and ROE (log of total assets), and managerial power is measured by using the following items; CEO duality, CEO age, tenure (number of years as CEO of the current firm), shares of CEO, CEO appointed directors, board size, and independent directors. Measurement of dependent and independent variables were adopted from the study of Van Essen et al. (2012).

The current research applied PLS-SEM technique to analyze the proposed model, as PLS-SEM is a nonparametric technique, it accurately deals with small sample size,

skewed data as well as complex and large models (Hair et al., 2014a). As in the case of current research, the sample size is small, so it can easily be handled in PLS-SEM. According to the requirements of the PLS-SEM, the required sample size must be ten times the number of arrows pointing at a construct in a model (Hair et al., 2014a). Another reason to use PLS-SEM is that it deals very well with complex models which includes mediation or moderation and provide both the direct and indirect effects (Hair et al., 2014a). Most importantly, this research includes a formative construct in the proposed model, and PLS-SEM is the most appropriate method to deal with a formative construct (Hair et al., 2014b). Additionally, due to small sample size, data used in the current research is non-normal, thus, another reason behind the application of PLS-SEM is that it accommodates the skewed data (Hair et al., 2014b).

Furthermore, in the current study, two constructs are measured as reflective, namely, managerial power and firm performance, however, managerial remuneration is measured as a formative construct with three indicators. A formative construct is

composed of its items and any change in the items may change the whole domain of the construct (Hair et al., 2014a), thus, in case of executive remuneration, the current study used all the major elements of remuneration which collectively contribute in remuneration. Hence, drop of any of these measures of remuneration affects the remuneration construct and the evaluation of the construct will be biased. While considering the nature of formative construct and nature of remuneration, the current research measured the executive remuneration as a formative construct. The research framework of the current study is shown in Figure 1.

## RESULTS AND DISCUSSION

### Reflective Measurement Scale

The quality of reflective scale constructs can be assessed through three quality criteria such as Cronbach’s alpha to measure internal consistency, the value of average variance extracted (AVE) and convergent validity. To evaluate the reliability of reflective construct’s items, inter-correlation among indicators is assessed using the traditional criterion approach of Cronbach’s

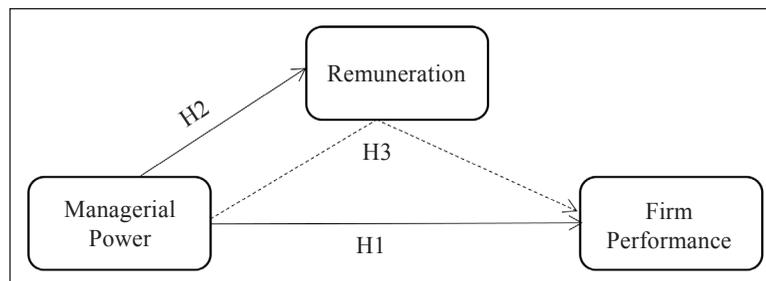


Figure 1. Research framework

alpha. The words of Hair et al. (2014b) about the cut off point for Cronbach's alpha in advanced researches is ranged between 0.70 to 0.90, but in exploratory researches, acceptable values are ranged between 0.60 to 0.70. Another measure of internal consistency is Composite Reliability (CR), the rule of thumb for it is the same as for the Cronbach's alpha. However, internal consistency measure is not applicable to formatively measured construct. In addition, AVE and convergent validity are evaluated using outer loadings of indicators. If the value of AVE  $\geq 0.50$  then it reflects that the AVE is average and reflective construct explains almost half of the variance of its indicators. Contrarily, if the value of AVE  $< 0.50$  then it indicates that variance

explained by the construct is below average and the more proportion is consisting of errors (Hair et al., 2014b).

### Formative Measurement Scale

Reliability test for formative constructs is assessed through meeting the assumption of multicollinearity and validity is assessed through the significance of outer weights of indicators. Multicollinearity is tested using the Variance Inflation Factor (VIF) measure. According to researchers, the value of VIF must be less than 5 and greater than 1 (Hair et al., 2014b). Table 1 illustrates the results of the measurement model.

Table 1 indicates the Cronbach alpha and CR values of reflective constructs which meet the recommended criteria of reliability.

Table 1  
Results of measurement model

Variables	Items	Items Outer Loadings	Items- Outer Weights	t-statistics	VIF	Cronbach Alpha	CR	AVE
Managerial Power	CEO duality	0.698***		32.485		<b>0.90</b>	<b>0.878</b>	<b>0.680</b>
	CEO age	0.878***		42.573				
	CEO tenure	0.891***		23.433				
	CEO shares	0.788***		18.735				
	CEO appointed directors	0.870***		14.165				
	Board size	0.899***		46.029				
	Board independence	0.573***		4.822				
Firm Performance	ROA	0.644***		10.034		<b>0.77</b>	0.742	<b>0.608</b>
	ROE	0.755***		10.500				
Remuneration	Cash		0.866***	5.630	1.861			
	Equity		0.695***	3.299	1.732			
	STI		0.869***	5.667	3.200			

\*p < 0.1; \*\*p < 0.05; \*\*\* p < 0.01

The findings show that all items are equally reliable and independent. The value of AVE is also greater than the average which means that both reflective constructs explain more than the half variance. Additionally, outer loadings of all indicators are statistically significant which confirms the discriminant validity. Similarly, the results of formative construct meet the cutoff criteria, VIF value of all indicators of formative constructs is less than 5 as prescribed by the Hair et al., (2014b) and outer weights of indicators are statistically significant which confirms the reliability and validity of formative construct.

**Discriminant Validity**

There is a most common method to evaluate the discriminant validity of the constructs introduced by the Fornell and Larcker (1981). Discriminant validity is confirmed by the higher diagonal value of the reflective constructs. If the diagonal values of each construct are greater than its corresponding row and column then it confirms the discriminant validity of the reflective measurement model. However, this method is not appropriate for the formative scale. The results of discriminant validity are depicted in Table 2.

**Structural Model**

In this section results of the structural model of PLS-SEM are analyzed using the prescribed criteria by previous researchers. Firstly, the PLS model is run without a mediator variable. Theoretically, a variable can be used as a mediator if it fulfills the criteria proposed by the Baron and Kenny (1986). These criteria are as follows:

- Change in the independent variable causes a significant change in the mediator variable.
- Change in mediator variable causes a significant change in a dependent variable.
- After adding a mediator variable in the model, the previously established significant relationship between the predictor variable and criterion variable significantly change its values.

Accordingly Helm et al. (2010) and Sobel (1982) tests are the most common approach for testing the mediating effect. Sobel test scrutinizes the casual relationship between the predictor variable and criterion variable before and after including the mediator variable (Hair et al., 2014a, 2014b). However, Sobel (1982) test has some limitations as it deals with the normal distributions, requires unstandardized path

Table 2  
*Discriminant validity*

	<b>Firm Performance</b>	<b>Managerial Power</b>	<b>Remuneration</b>
<b>Firm Performance</b>	<b>0.780</b>		
<b>Managerial Power</b>	0.839	<b>0.825</b>	
<b>Remuneration</b>	0.904	0.795	<b>Formative Construct</b>

coefficients and lacks statistical power (Hair et al., 2014a, 2014b). These problems become more crucial when it is applied to the small sample (Hair et al., 2014a).

Thus, the current study follows the Preacher and Hayes (2008) bootstrapping sampling distribution technique to test the mediating effect. This technique does not need normal distribution, greater statistical power and can be applicable to small sample size, therefore, best suited to PLS-SEM approach. Mediator analysis is done by following the procedure described by Hair et al. (2014a).

### Significance of Direct and Indirect Path Coefficient

Table 3 depicts the significance of direct path coefficients.

Table 3  
*Path coefficient without mediator*

Path	$\beta$ Coefficients	t-Statistics
MP $\rightarrow$ FP	-0.832***	35.507
MP $\rightarrow$ REMU	0.910***	44.362

MP= Managerial Power, FP= Firm Performance, REMU= Remuneration

\*p < 0.1; \*\*p < 0.05; \*\*\* p < 0.01

The results of the whole model including mediator are shown in table 4.

Table 4  
*Results with mediation*

Path	$\beta$ Coefficients	t-Statistics	R <sup>2</sup>	Q <sup>2</sup>	Upper Limit	Lower Limit
MP $\rightarrow$ FP	-0.133	0.673	0.820	0.512	0.694	0.413
MP $\rightarrow$ REMU	0.900***	42.783	0.806			
REMU $\rightarrow$ FP	0.784***	4.012				

MP= Managerial Power, FP= Firm Performance, REMU= Remuneration

\*p < 0.1; \*\*p < 0.05; \*\*\* p < 0.01

Results from the above table indicate that after adding the mediating variable in the PLS-SEM path model, the values of existing relationships between independent and dependent variables significantly changed. The direct effect of managerial power on firm performance has not remained significant ( $\beta = -0.133$ ,  $t$ -value=0.673) after the intervention of a mediator. As, after including the remuneration as a mediator in the model, the direct effect's beta coefficient (-0.832) changed its value to -0.133. The decrease in direct effect is 0.699 which is accounted for indirect effect and it is 84% of the direct effect. According to the rule of thumb, if the variance accounted for (VAF) is greater than the 80% a full mediation exists (Hair et al., 2014a, 2014b).

The coefficient of determination, known as R<sup>2</sup>, is stated in column 4 of table 4 and its value varies between 0 and 1. According to Hair et al. (2014b), it is difficult to provide any rule of thumb for R<sup>2</sup>, however, the greater value of R<sup>2</sup> refers to the greater variance explained by the model. R<sup>2</sup> value in this study is 0.820, which indicates that 82% of the variance is explained due to the current research model.

Predictive relevance (Q<sup>2</sup>) of the model is obtained by using the Stone-Geisser test (Geisser, 1974; Stone, 1974). Q<sup>2</sup> indicates

an adequate predictive validity of the model based on the criteria suggested by Hair et al. (2014); the value of  $Q^2 = 0.02, 0.15$  and  $0.35$  refers to the small, medium and large predictive power of the model respectively.

In the current study, the value of  $Q^2$  is  $0.512$ , which is greater than the recommended value of large prediction power thus it shows the strong prediction quality of the statistical model. Similarly, the effect size  $f^2$  evaluate the exogenous construct's contribution to an endogenous latent variable's  $R^2$  value. It is the rule of thumb that  $f$ -square ( $f^2$ ) values ranging among,  $0.02, 0.15$  and  $0.35$  indicate that exogenous constructs have respectively small, medium or large effect sizes on an endogenous construct (Hair et al., 2014a, 2014b). The effect size statistics are reported in Table 5.

Table 5  
Effect size

Construct	$f^2$
MP	0.02
REMU	0.469

MP= Managerial Power, REMU= Remuneration

### Hypotheses Testing

In this section, the developed hypotheses are tested through the significance of the corresponding beta coefficients. Acceptance or rejection of developed hypotheses is based upon their level of significance for path coefficients. The level of significance is to be assessed through the bootstrapping technique as suggested by the Hair et al. (2014a). The values of beta coefficients indicate the magnitude of change in a dependent variable due to the change in an independent variable. Values of path coefficients lie between  $-1$  and  $+1$ .

Table 6  
Hypotheses test

Hypotheses	Path Coefficients	t-Statistics	Decision
MP→FP	-0.133	0.602	Not Accepted
MPREMU	0.900	42.082***	Accepted
MPREMU→FP	0.784	3.584***	Accepted

MP= Managerial Power; REMU= Remuneration; FP= Firm Performance

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\*  $p < 0.01$

Results of the structural model for hypotheses test reflect some interesting facts. Table 6 shows that the managerial power has a negative effect on firm performance, however, this relationship is statistically insignificant. This statement is against the proposed relationship in hypothesis 1; as a result, hypothesis 1 ( $H_1$ )

is rejected ( $\beta = -0.133, t = 0.602$ ). These unexpected results are due to the reason that in Pakistani firms, most of the board members are owners and owned a greater share of the firms. Although this situation encourages managerial power, however at the same time such board members remain concerned about their wealth

(dividends, share price, firm success etc.) which is bounded with firm performance. Similarly, the results of regression analysis indicate that the second hypothesis ( $H_2$ ) has been accepted ( $\beta= 0.900$ ,  $t= 42.082$ ,  $p=0.000<0.01$ ). It means that managerial power has a positive and significant impact on executive remuneration; similar results are found by the Van Essen et al. (2012). Additionally, the regression results also provide support for hypothesis three ( $H_3$ ) which is statistically significant ( $\beta= 0.784$ ,  $t= 3.584$ ,  $p=0.000<0.01$ ). It indicates that remuneration mediates the relationship between managerial power and firm performance.

## DISCUSSION AND CONCLUSION

As CEOs and other top managers hold important information and they have the power to manipulate this information in their favor. Consequently, in existing literature, some authors also argued that top management is the central information processing, managing and controlling part of firms. They may manipulate this information just for their own sake if they have more power and control over the firm and this phenomenon provides roots for many other problems such as excessive executives' remuneration and poor firm performance. Therefore, the current study specifically was designed to evaluate the direct impact of managerial power on executive remuneration and firm performance and further investigate that how the relationship between managerial power and firm performance changes with

the intervention of remuneration. For this, the current study collected the data from Sugar & Allied industry of Pakistan Stock Exchange for the year 2014 and processed this data using PLS-SEM due to the complex nature of the model.

Moreover, findings of the current research reflect that after adding the mediation of executives' remuneration, the direct effect of managerial power on firm performance is not significant in this study. As the findings showed that when mediation of executives' remuneration was not added in the model, the direct effect of managerial power on firm performance was negative and highly significant ( $\beta=-0.832$ ,  $p\text{-value}= 0.000$ ). These results described that in the absence of appropriate rewards or remuneration, the managerial power became worse for firm performance. However, the indirect effect of managerial power on firm performance is found as positive and significant statistically. In other words, executive remuneration significantly mediates the relationship between managerial power and firm performance. Due to the reason that executives with higher pay are more concerned with the firm performance because their pay includes higher short-term benefits such as bonuses that persuade them to focus on the performance of firms. Furthermore, the effect of the executive's remuneration on firm performance is positive and significant in the current study, which means that an increase in firm performance is due to the high increase in remuneration. However, we found that the directors did not have enough long-term incentives in their pay contracts

and as result executives just focused on the short-term firm performance in order to justify the rise in their pay due to higher managerial power. This phenomenon also highlights that the long-term performance of the firms is ignored by the executives. Hence, firms must take the necessary steps to eliminate the managerial power for avoiding poor firm performance and excessive remuneration. This will only be possible when the board is free of the CEO's control. Independent directors must work independently without showing sympathy with any top management team member.

Despite the significance, this study is also subject to some limitations. Such as the data is based upon the specific sectors of Pakistan Stock Exchange as well as the selected sample is also small, therefore, the results of this study will not be generalizable to other sectors. Additionally, there may be some other variables that will cause the managerial power, however, this study included only those variables that were provided in the literature and easily available in the annual reports or other sources of the selected firms. So, an interesting expansion of the current research is that future researchers can use data from other sectors and other countries to test these relationships as well as they may also use a large data set. Future research can also be done by adding some new and positional elements of managerial power as well as researchers may also investigate some other important determinants of executive remunerations such as the contribution of remuneration committee in pay-setting process.

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