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The Relationship between Executive Remuneration and Organizations' Efficiency: An Evidence from the Financial Sector of Pakistan

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Abstract
The salary structure has been a major worry for firms in recent years. This study investigated the relationship between remuneration trends for executives and organizational effectiveness. Between 2005 and 2019, we obtained secondary data from the annual reports of 25 banks. Using STATA, we assessed the hypotheses by analyzing the data. Using basic least squares regression techniques and Granger's causality test; we determined the relationship and causality between variables by analyzing the data. The results reveal that board compensation has a significant impact on the success of a firm. The study provides regulators with a comprehensive methodology for calculating CEO compensation for encouraging research and development within the organization.
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JEL Classification: C01, G21, G32, M12, M52

1. Introduction

Organizational efficiency is defined as an organization's capacity to carry out its plans with the least amount of resources (Antounian et al., 2021). The ease and degree of success with which the company may achieve its goals is a significant aspect of the firm's organizational effectiveness. Organizational efficiency is all about determining how to be more effective by utilizing fewer resources, as well as less time and money, to accomplish the same task. Organizational efficiency is measured in terms of time, effort, and results. Businesses can assess efficiency by examining their resources, time, and expenses. Resource efficiency is the effective use of your organization's resources to avoid waste, while time efficiency is the achievement of goals within a given period or sooner. If your operations are cost-effective, your organization can produce, manufacture, and deliver products at a low cost while still making a profit. These profits increase the company's efficiency and increase the owners' wealth.

The company's management, policies, objectives, organizational culture, strategy, and human resource policies all have a direct impact on organizational efficiency. Pay packages specifically tailored for a company's chief executive officer, high management, and administrative level staff is known as administrative compensation, or executive pay, depending on the context. In addition to a base pay, administrators may be eligible for bonuses, stock options, health plans, and other perks (Sun, 2014). It includes the desired annual wage plus incentives and equity. Managers' total earnings from their companies are known as executive compensation. Executive remuneration is made up of a number of different components, such as a base salary, a bonus, and stock options, each of which plays a different role in the overall compensation structure or pay composition. The term "executive compensation," also written as "executive pay," is commonly used to describe the special compensation plans designed for the top executives, managers, and other high-ranking employees of a corporation.

According to Jensen and Murphy (1990), pay-overall performance sensitivity is the ratio of the change in CEO wealth to the change in shareholder wealth that results from a change of one dollar. By re-estimating the initial variations of CEO remuneration on the initial variations of the firm's marketplace charge, they may estimate the pay-overall performance sensitivity. This tactic presumes, implicitly, that the sensitivity is independent of the market price of the company. Earnings, bonuses, perks, health coverage, and other benefits are all part of a CEO's remuneration package. Research on government reimbursement has focused heavily on executive salary and the sensitivity of compensation to overall performance.

The banking industry plays an important role in Pakistan's economic growth. To achieve healthy and sustained development, the Pakistani banking industry has undergone multiple rounds of reform. The government pays for and specifies the overall performance of the corporate enterprise, as well as developing expectations for those overall performance criteria (Idehlu et al., 2019). The goal of such adjustments was to boost opposition, beautify stability, and improve the performance of Pakistani banks; thus, as a result of those reforms, opposition within the Pakistani banking enterprise accelerated dramatically. As a result of these reforms, Pakistani banks' stability and efficiency improved, and competition in the Pakistani banking system increased considerably.

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The study's conclusions will assist the Pakistani government, State Bank of Pakistan, and banking authorities in developing policies to improve the performance of Pakistani banks. The regulatory government maintains awareness of the banking opposition, and major banks take several efforts to restrict aggressive levels for the sake of the economy. The structure of the remainder is that section two represents the review of literature, section three describes the methods of the study while, sections four reports the results and section five conclude the study.

2. Literature Review

2.1. Executive Pay

Managers' risk-taking behavior has an impact on shareholder capital, which Low (2009) investigated. Specifically, little finds that firms with low managerial equity, as measured by total salary, benefit from strengthening acquisition protection exogenously since it decreases the threat level. In a broader study, Belkhir and Chazi (2010) look at incentive sensitivity tests for bank holding companies and find that a higher sensitivity of CEO RAF options to market risk causes CEOs to take on more risk because of financial market deregulation. The potential for business failure has heightened CEOs' awareness of the need for reimbursement, as reported by Bai and Elyasiani (2013).

According to Faulkender et al. (2010), riskier institutions offer larger bonus incentives to their staff during financial crises, while CEOs who receive long-term, equity-based overall performance fees discourage risky investments. The recent financial catastrophe, however, has shown the usefulness of reimbursement legislation. Executives can better manage, discipline, and empower their employees using exclusive compensation. No clear scientific data or interdisciplinary agreement exists on the elements that determine the level, structure, and performance sensitivity of executive pay, even though several research have been performed to study these questions. Investors use corporate governance to keep an eye on how their money is being used within a corporation (Caskey and Laux, 2017). Aligning corporate benefits with shareholder interests by integrating stock awards in employee pay schemes was one of the most effective techniques to keep a tight check on company management. The purpose of these contracts was revised to provide incentive for CEO hard work while reducing the opportunity for fraud. Many books and articles have been written about how worker compensation affects company governance (Ntim et al., 2017).

In numerous nations, pay scales and bonuses are primarily determined by an employee's performance in the accounting field. Accounting success, as previously studied, depicts the state of a company's operations, but it also frequently affords CEOs the chance to misrepresent the company's net asset fee and revenue to increase their own personal wealth (Sun, 2014). The lack of consumer interest in the accounting profession is a result of multiple severe monetary reporting problems, which has led to a rising disagreement in the literature regarding the consistency of accounting standards applied for worker compensating contracts. The principal-agent theory predicts that when a CEO gets closer to retirement, he or she will become more risk averse due to the government's remuneration within the framework of internal debt. Sundaram and Yermack (2007) state that CEOs who have amassed a lot of internal debt are less likely to default. According to the predictions of organization theory, CEOs would be less prone to erratic behavior if they received a larger pension payment. CEOs will benefit greatly from this, but it may not be in the best interests of present owners.

Due to the financial structure of the company, shareholders can save money by creating a CEO incentive plan with a debt and equity split. Younger executives will select less wage leverage since they do not see retirement as a major barrier to their success. Equally, companies in other sectors typically have much smaller internal debt, which can be an inspiration to ambitious managers. Anantharaman et al. (2013) analyzed a subset of repayment outcomes for executives (2006-2008) and found that directors with more pay transparency receive external debt at a lower interest rate and with less stringent debt covenants. The managers stray from the optimal method of funding when there is a disparity (either positive or negative) between the leverage used for repayment and the leverage used for the purpose of the corporation.

Kwak and Mo (2017) investigate the capacity to affect wages as well as the risk of defaulting on payments. The abrupt and unreasonable surge in CEO salary has ignited a heated debate regarding the question of whether pay for CEOs should be capped in the aftermath of recent financial crises and commercial disasters. If it leads to better contractual performance, a more limited compensation package for the CEO could be profitable for the company's shareholders. In other circumstances, it may result in the creation of more problems when it comes to the compensation of the CEO than it solves (Murphy, K. J., & Jensen, 2018). Even though it was meant to alleviate agency concerns caused by the separation of ownership and management, executive pay has become a problem in its own right due to boards being dominated by powerful CEOs who establish excessive payment levels. This is despite the fact that executive pay was initially intended to alleviate agency concerns.

Van der Elst and Lafarre (2017) investigated the impact that Dutch shareholders have on the amount of dividends received. The academic community agrees that giving shareholders a voice in the subject of compensation encourages more open dialogue about the topic and places a similar premium on administrator forums to discuss compensation

concerns. The academic community is also in agreement that giving shareholders a voice in the subject of compensation encourages more open dialogue about the topic. According to the findings of scholarly research, the Netherlands has implemented a remarkable and cutting-edge strategy for rewarding equity. Shareholders have been urged to participate in the formulation of a strategy for the distribution of cash that is beneficial to all parties involved in the enterprise. It is difficult to communicate clear and specific conditions for payback, and one example of this issue is the ambiguity around the applicability of Dutch law on bonus packages.

The MP from the Netherlands struck a middle ground by calling for a vote even though the compensation plan was still being updated. According to the findings of the study, the strategy was successful since it resulted in a vote occurring at least once every three years in some industries and motivated other businesses to apply for a rewarding pay plan over the long term. If, for example, the compensation plan needs to be authorized once every three years, then the corporations in question could have to fork out additional capital. In addition, shareholders who have an interest in learning how the remuneration structure of their firm has evolved will exercise their right to add the subject to the agenda in order to learn more about the topic.

Regarding the architecture of incentive contracts, the feasibility of putting restrictions on payroll deductions was investigated. To be more specific, a linear agency model was investigated. In this model, the cash flow of an organization is characterized by the dedication of the agent as well as an observable random factor. Because it increased the cost of the trade without contributing any additional value, the quantifiable random component of the success indicator was removed without being constrained by tax regulations. According to studies, when salary tax deductions are capped, CEOs are more likely to increase their discretionary remuneration to compensate for the loss of some of their fixed income. This is because salary tax deductions constitute a form of fixed income. The increase in variable remuneration, on the other hand, favored luck more than an agreement for a bonus that had no restrictions whatsoever.

The findings of Joutsenvirta (2013) indicate that the normative implications and societal integration of executive pay are expanding, and that the public view of CEO salary is shifting as a result of these developments. This study demonstrates that cultural norms and beliefs connected with authority have persisted over time and have also evolved over that span of time. Her research into the Finnish media showed how different kinds of legitimating adhere to different merit grounds when determining and discussing CEO pay, and how different kinds of credit are given to different kinds of interactions between managers, lawmakers, and employees. Her research also showed how different kinds of legitimating adhere to different merit grounds when determining and discussing CEO pay. After the financial crisis of 2008, the criteria that were used to evaluate the remuneration arrangements of CEOs underwent a significant metamorphosis. At the same time, the most practical and intellectual effort to legitimize the practice shifted into a spiritual struggle.

2.2. Organization Efficiency

According to the findings of Antounian et al., (2021), businesses whose policies placed an excessive amount of emphasis on safety actually had lower levels of productivity. Numerous aspects, such as the CEO turnover rate, the sensitivity of the CEO's remuneration to performance, the CEO's salary, and the availability of performance exemptions for employees, were taken into consideration during the analysis. To compute control and protection, the control and protection index's yearly enterprise value was subtracted from the index's value. Research was conducted on governance in organizations as well as the incorporation of performance indicators. According to the findings of the study, the retention plan implemented by the CEO falls short of what is expected in the event of bad performance. It has been discovered that newly appointed CEOs have a greater tendency to underperform than their predecessors. An excessive number of mergers and acquisitions may have a negative effect on the salary of chief executive officers. The characteristics of the boards of directors those are responsible for overseeing companies in more developed economies, such as the United Kingdom and the European Union, have an impact on both the ownership structure of companies and their overall performance. There is no consistency in the results. Researchers in industrialized economies are investigating how chief executive officers (CEOs) put their resources to use. CG is given priority when deciding on an advertising business to work with. Those that have a strong interest in something are the ones who make this feasible. On the other hand, a hierarchical structure does not automatically result in consistent managerial practices. It is probable that there will be restrictions placed on how much can be borrowed. When it comes to the realm of business, fighting is both costly and destructive. We were able to obtain information from reputable contracting and management businesses regarding executive pay and performance (Van Essen et al., 2012).

According to First-Rate Expenditure, obtaining government reimbursement requires a sincere agreement to have been reached between the board of directors and the senior executives of a business that is not biased. This contract lessens the burdens placed on executives and investors by the organization's challenges by rearranging their priorities. Naseem et al., (2019) investigated the correlation between CEO characteristics and the success of their respective companies (e.g.). The research investigates the variables that can result in the removal of a CEO from their position, as well as

the effects that such a move can have on an organization's bottom line. According to the findings of certain studies, the developing world has the opposite problem. The use of the provided materials helps to make the dual role of CEO more manageable. Companies with a co-chief executive officer did not perform well. According to the research, one way to improve performance is to break form and ball control apart. According to the findings of (Mubeen et al., 2020), CEOs who have numerous identities and have been successful in their organizations have been researched in the past. The research revealed that there were robust relationships between certain factors, but not others. According to the findings of certain studies, businesses that have a CEO who also serves in another job tend to have higher levels of overall performance.

However, the findings of other studies suggest that there is no association between the two factors. The duality of the CEO role and the performance of a company are both influenced by a variety of different circumstances. The results of a study that involved 2,502 different companies reveal that the efficiency of CEO duality is impacted by both the financial structure of the company and the level of market competition. The management and the organization are both in good hands at this point. CEO twins can have a significant impact on a company's capital, market competition, and overall performance. There is some element of truth underlying each and every theoretical framework. The CEO dualist model was connected to the generation of wealth, competitive markets, and ownership. According to Capital Shape, having two people share the role of CEO might be detrimental to the development of a company. Both of those matters have been investigated to some extent. When a company's chief executive officer is also the company's president, neither the company nor its image can hope for positive outcomes.

2.3. Relationship Between Executive Pay and Organization Performance

Grime et al. conducted research in 2007 to investigate the ways in which corporate governance impacted CEO compensation at a variety of different UK companies. Their research reveals that the link between salary and performance is still only moderate for the companies that were included in their sample throughout the time period of 1981–1996. They brought attention to the fact that measures of corporate governance can lower CEO salary. In addition, Duffhues and Kabir (2008) investigated the association between pay and performance for 135 companies that were listed on the Euronext Amsterdam stock exchange during the years 1998 and 2001. In addition to total board compensation and business accomplishments, the ROA, ROS, and annual stock return were analyzed in this study as well. In the end, they discovered that there is a statistically significant inverse link between pay and production.

According to the optimum contract theory, agency problems can arise in a corporation whenever ownership and management are separated from one another. The remuneration committee of a board of directors' primary duty is to devise a compensation programme for the company's top executives that will both encourage those executives to act in the best interests of the shareholders and keep agency costs to a minimum. This is the major responsibility of the remuneration committee (Conyon, 2014). The concept of managerial power suggests that a CEO who has significant authority over other corporate stakeholders may receive disproportionate pay for himself through his influence on the process of board election, even if ownership has been fairly distributed. This is the case because a CEO who has significant authority over other corporate stakeholders may receive disproportionate pay for himself. As a result, the chief executive officer should view his or her compensation as an opportunity to improve one's own financial situation. Both ideas point to a connection between decreased agency costs and the sensitivity of high-performance remuneration as a possible explanation. It is a widely held belief that increasing the number of independent directors who are not affiliated with the firm is one approach to guarantee that the problem of executive compensation is managed in an appropriate manner.

According to Faleye (2007), staggered boards assist lessen the sensitivity of compensation to performance and reflect the CEO's commitment to the firm. Staggered boards also demonstrate the CEO's commitment to the company. This example also highlights how the voting strength of a company's controlling shareholders and the addition of more independent directors can improve the sensitivity of remuneration packages for chief executive officers. According to Coles et al (2014) findings, not all independent directors are created equal when it comes to their ability to monitor the activities of the CEO and the other executives in the C-suite. The researchers classify the members of independent boards into two distinct groups: those who have been coopted and those who have not been coopted. The first group consists of board members who are appointed after a new CEO has been brought on board.

Academics in China have also investigated the connection between being on the board of directors and a company's CEO salary. Researchers who used cross-sectional data to analyze the effect of the independent board of director’s mechanism on the performance and compensation of the top three managers came to the conclusion that the implementation of the board independence regulation in 2001 had a positive impact on the sensitivity of executive performance and compensation. This was one of the findings of the study that was conducted. However, Luo (2014) discovered that academics are concerned about the reputations of even "star" independent directors in the monitoring sector, which does nothing to raise the sensitivity of CEO performance pay. Experts have also observed that private enterprises, and notably those that are not owned by the government, are more likely to gain from performance pay if

they have "star" independent directors on staff. This is especially true in cases where the government does not own the company.

Lu and Zhu (2020) distinguished between independent and non-executive outside directors and concluded that the latter are more effective at supervising managers and increasing profitability than the former. He et al. (2015) discovered that in badly performing enterprises, both state-owned and non-state-owned, non-controlling directors were more likely to vote against management moves to better monitoring outcomes. This was the case regardless of whether the firm was state-owned or not. Academics in the Chinese context have conducted more in-depth research into the connections between different kinds of outside directors and the degree to which a CEO's salary is sensitive.

There were primarily two events that led to the birth of the executive compensation and performance literature. These developments were: A theoretical investigation on the most effective administration and contracting tools (Van Essen et al., 2015). In line with the ideal contract theory, the executive pay plan was the product of a just exchange between the firm's executives and the board of directors. This exchange led to the creation of the executive pay plan. Incentives and contracts for management that consider both the interests of management and those of shareholders, while also easing concerns about agency costs, are the hallmarks of excellent management (Lin et al., 2012). As a result, there should be a strong positive correlation between the pay of the CEO and the results, provided that the contract is flawless, because those in upper management have less of a choice in how much they are paid (Borisova et al., 2012). On the other hand, the management power perspective contends that the agency problem is made worse by the close interpersonal engagement and negotiation that takes place between the chief executive officer (CEO) and the weak corporate board of directors. This view assumes that the CEO has more power than the board of directors. The management power perspective argues that the salary of the CEO may not be directly tied to the success of the company. This is due to the fact that executives are trusted to choose their own compensation (Van Essen et al., 2015). In a rather unusual turn of events, the United Kingdom and the United States are the only two countries in which an empirical study of CEO remuneration has been done, and the data that has been collected is not just imprecise (Elsila et al., 2013).

In spite of the fact that American research show a little more sensitive link between CEO remuneration and performance than the studies conducted in Britain, most of them still show a positive but weak correlation between the two variables. Jensen Murphy was one of the first researchers to investigate the connection between CEO pay and the performance of the company's stock (1990). Utilizing a sample size of 1,049 US businesses that were operating between the years of 1974 and 1976, researchers discovered a substantial association between CEO remuneration and performance elasticity. According to the findings of academic studies, the salary of a CEO in the United States will grow by around $3.25 for every $1,000 increase in shareholder wealth. However, the early study on CEO compensation in the United Kingdom and the United States has significant limitations due to the absence of control variables, such as corporate governance practices, that could influence the association between executive salary and firm success. These limitations make the study less reliable. In the research that occurred before and after that conducted by Tang (2012) in the UK, a wide range of CG variables were controlled to assess the extent of the correlation that exists between CEO pay and financial outcomes (such as the board of directors and ownership characteristics). A weak association between executive salary and real business success is something that can be observed rather frequently in these assessments.

One of the things that make this research problematic is the fact that they frequently avoid directly addressing any potential endogenous issues. These concerns may have been brought up by the possibility that the corporation will use different CG mechanisms and CEO compensation within the context of simultaneous equations to reduce the impact of agency problems. It's possible that this is the reason why the study found such low coefficients of correlation between CEO pay and firm performance (Huang et al., 2012). A positive association has been found between executive compensation and the financial success of firms, according to the limited research that has been carried out in countries other than the United Kingdom and the United States. On the other hand, the intensity of the connection that exists between them is milder than it is overpowering. This highlights the reality that national institutional and cultural issues, in addition to company-specific challenges, have the capacity to influence executive remuneration and the flexibility with which businesses can respond to changing market conditions. For instance, research conducted by Sapp (2008) found that between the years 2000 and 2005, executive pay in 416 Canadian organizations was positively correlated with corporate success. This contrasted with the situation in comparable businesses located in the United Kingdom and the United States of America.

2.4. Underpinning Theories

For government reimbursement, the World Bank model incorporates corporate theory, championships, and equity. Jensen and Meckling (1976) pioneered theory of the firm which explains the basics of the agent courtship. When the shareholders reject the CEO's sport and fundraising, they choose an agent (the CEO) to govern company profits. Control measures for each kingdom are specified. Because shareholders are unsure whether CEO activities and

funding prospects can increase wealth, they are no longer scrutinized. Statistical asymmetry causes the agent to make the best use of its resources (Jensen and Meckling, 1976). The agent's moves and organization will fail. The Agent will not always assist the owner due to differing objectives and aspirations. There is a shareholder-representative disagreement in the corporation. Jensen and Meckling refer to it as the "agent problem" (1976). Business issues are classified into three categories. Finances: Explains why leaders of a 100 percent owned firm with less than 100 percent ownership will not make the same decision now. Tories. We need more money and more efficient actions. Non-risk takers It is difficult to persuade management to increase stock prices. Rather than paying dividends or buybacks, executives choose to spend or pass on retained earnings. Company Debt Cost explains shareholder-creditor conflict. Stockholders want riskier, cost-cutting initiatives, but creditors prefer safer investments.

The tournament concept predicts that manager compensation will be more evenly distributed than equity (Grund and Westergaard-Nielsen, 2008; Kale et al. 2009). Matching is another word for strategic profit speculation. Wage progression was first proposed by agents who assumed it was based on individual variations rather than marginal production. Move the profit hole to the top of the organizational structure if there is a significant correlation between workload and performance. The champion idea is evident in elite sports. The championship idea is based on a dataset of Swedish employer-employee matching. Data from 10,000 managers show a link between control return dispersion and earnings. Chen et al. (2011) discovered that the championship idea accurately characterized the performance of advertising profits in 432 Chinese agencies from 1998 to 2009. Government real estate growth undermines the link between government reimbursements and company performance. The government reimburses based on political strength rather than business performance.

Equity Fairness Theory Large wage disparities may cause jealousy and disturbed conduct (Wade et al., 2006). It has the potential to harm a company's performance. Wage compression is equity (Lazear 1989). The distribution of claims salary affects both the product and how it is produced. A variety of tools can be used to assess fairness. The study discovered a correlation between high product quality and low-level and restricted employee coffee use. Commercial incentives discourage employee collaboration and private effort. Hibbs Jr and Locking (2000) discovered that decreasing Swedish pay dispersion has an impact on production and hard labor productivity.

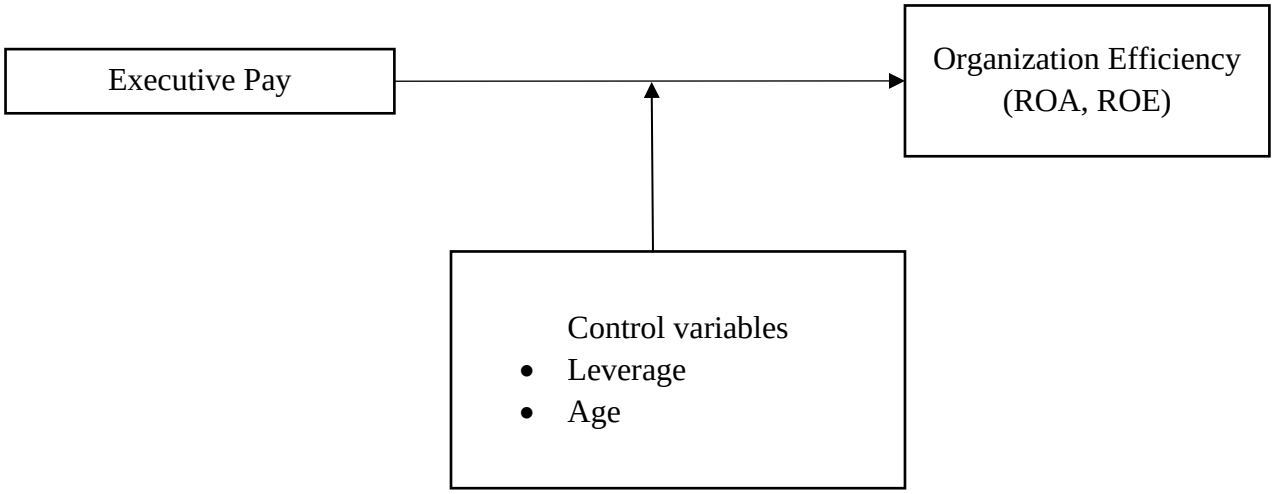

Figure 1: Theoretical Framework

2.5. Hypothesis

H_0: There is a significant relationship between Executive pay and organizational Efficiency.

3. Research Methods

This is a study of causes. The published annual reports of 25 institutions in the public and private banking sectors were mined for secondary data. This study explores the relationship between compensation performance and organizational effectiveness from 2005 to 2019.

3.1. Variables of the Study

Return on assets (ROA) and return on equity were the metrics that were utilized in our analysis to determine efficiency (ROE). In comparison, return on equity (ROE) is more commonly used in corporate governance literature and is more

generally related to a company's total continuous success, whereas return on assets (ROA) places more of an emphasis on shareholder wealth by leveraging the performance of corporate assets. In other words, ROE is more generally related to a company's overall success, while ROA is more specifically related to a company's success (Mubeen et al., 2020; Antounian et al., 2021). One variable is used to determine how much of an influence anything has on the organization's overall effectiveness. Salary, bonuses, and stock options are all components of CEOs' total compensation packages (Ataay, 2018).

In this article, we look at several different control elements that have been utilized in the past to influence executive compensation and the outcomes of businesses. To prevent drawing any incorrect inferences about the performance of the organization, it is necessary to take into account the important and key variables. Both the tangibility of the business scale and the management of the financial leverage assets are two areas that need continuous monitoring (Al-Shaer & Harakeh, 2020). At the 1% significance level, there is a statistically significant relationship between each of the continuous control variables that were investigated in this body of work (Coles et al., 2014). In the interest of completeness, we additionally factor in the level of leverage and the age of the company.

3.2. Econometric Equation

$$\mathrm{ORGEF_{it}} = \alpha + \beta_1 LNCEO_{it} + \beta_2 \mathrm{CONTROL_{it}} + \varepsilon_{it} \qquad (1)$$

In the above equation, α is the constant term, *i* represents the single bank and *t* shows the year, β is the coefficient, ε_{is} the error term. ORGEF shows the organizational effectiveness measured by ROA and ROE, and LNCEO shows the sensitivity of salary performance and executive compensation. While CONTROL represents all the control variables used in the model.

4. Results and Discussion

In this section, the data collected was analyzed by STATA and the results were interpreted. The collected data was analyzed by the following techniques.

Table 1: VIF Test

Variables	VIF value
LEV	1.26
Age	1.21
LNCEO	1.13

As the first pre-estimate tests, the VIF test and the roots of unity were utilized to determine the robustness of the data. Table 1 shows the results of the variance inflation factor (VIF) test, which was used to identify multicollinearity amongst all variables. If the VIF score is greater than 10, suggesting multicollinearity in some variables, and less than 10, indicating that the data lacks multicollinearity, then the data lacks multicollinearity (Mubeen et al. 2020).

Table 2: Unit Root Test

Variable	Ceof	p-value
ROA	158.969	0.00
ROE	106.681	0.00
LNCEO	175.249	0.00
LEV	346.566	0.00
Age	157.429	0.00

The ADF-Fisher test was carried out with the intention of determining whether the panel data had a unit root. As can be seen in Table 2, the unit root test discovered not a single variable to exhibit any sign of instability. Since every one of the test statistics is significant, we can confidently discount the possibility that unity's roots are responsible.

Table 3 displays the descriptive statistics for each variable explored in this study. This includes not just the independent variables, but also the dependent variables and control variables. Descriptive statistics include the number of observations, the average, the standard deviation, the minimum and maximum, and the range between the two.

Table 3: Summary Statistics

Variables	Obs.	Mean	Std.Dev	Min	Max
ROA	339	0.006	0.014	-0.076	0.037
ROE	339	0.051	0.315	-3.179	0.488
LNCEO	339	10.535	1.279	8.439	12.839
LEV	339	0.894	0.090	0.012	0.983
Age	339	22.545	20.313	0.00	77.400

According to the study's conclusions, the efficiency of businesses is measured by their return on assets (ROA) and return on equity (ROE) (ROE) The following are some ROA characterizations: There were 339 observations in all, with a mean of 0.006 and standard deviations of 0.014. There was a wide range of results, with 0.076 being the lowest and 0.037 being the highest. The maximum value is 0.488, and the minimum value is -3.179. There are 339 observations in all. The lowest possible value is -3.179, and the highest possible value is 0.488. The average is 0.051, and the standard deviation is 0.315 units. The natural log of executive compensation (LNCEO) is frequently used as a stand-in for the underlying independent variable of compensation for top executives. There were 339 observations in all, with a mean of 10.535 and a standard deviation of 1.279 (with a range of -8.439 to 12.839). The independent variables in this analysis include leverage (LEV), age, and gender. With 339 observations, the control variable leverage (LEV) has a mean of 0.894, a standard deviation of 0.090, a minimum of 0.012, and a high of 0.983. The mean was 22.545 out of 339 observations, the standard deviation was 20.313, the minimum was 0, and the maximum was 77.400.

Table 4: Correlation Test

Variables	ROA	ROE	LNCEO	LEV	Age
ROA	1				
ROE	0.770[a]	1			
LNCEO	0.222[a]	0.133[a]	1		
LEV	0.037	-0.044	0.209[a]	1	
Age	0.388[a]	0.205[a]	0.260[a]	0.089[c]	1

Table 4 depicted the association between the factors. Correlation analysis is an extra tool for investigating data multicollinearity. When two or more independent variables are significantly correlated with one another, multicollinearity difficulties arise. Multicollinearity reduces the reliability of statistical conclusions. When building models for multiple regression analysis with two or more variables, it is best to use uncorrelated or strongly correlated variables. According to the thrum rule, coefficient values of 0.7 or above produce the multicollinearity problem, but some studies reject the regression analysis model's multicollinearity problem. This is the biggest value that serves as an approximation and is used as an alternative to analyzing the sensitivity of executive compensation, which is not equal; hence, it does not offer a barrier to the regression analysis model.

Table 5 displays the results of a combined "ordinary least square" OLS regression analysis, which show a correlation between executive compensation (LNCEO) and return on assets (ROA), with a F test value of 10.69*** indicating model fitness with a significant value (0.000) and an R-square value of 0.409 indicating a 41.50% change in ROA due to change in executive compensation. These findings also suggest that there is a link between executive salary and return on assets (LNCEO). According to the results of a statistical test with a t-value of 3.79, a change of 0.30% in ROA is associated with a change of 1% in executive salary (LNCEO) at the 0.000 level of significance.

Table 6 exhibits the OLS findings when both fixed and random components were examined. Hausman investigates the mechanisms that are used to decide the fixed effect at the right time. The OLS random effect (RE) results show that executive compensation (LNCEO) has a significant impact on return on asset (ROA), resulting in higher organizational performance. This was determined after controlling for the variable's effect on experience. With a F test value of 138.47*** indicating that the model is fit at the 0.001 level and an R-squared value of 0.288 indicating that a change in executive pay results in a change in ROA of 28.80%, it is abundantly clear that top executive compensation has a significant impact on a company's financial performance (LNCEO). A 1% change in LNCEO results in a 0.03% change in ROA, with a z-value of 2.90 at the 0.001 level of significance. The change in ROA is considerable.

Table 5: OLS Regression Analysis

Variables	ROA		ROA		ROA		ROA	
	Coefficient	t-value	Coefficient Value	t-value	Coefficient Value	t-value	Coefficient Value	t-value
LNCEO	0.003***	3.79						
	0							
LEV	-0.033***	-4	-0.039***	-4.48	-0.044***	-4.94	-0.031***	-3.54
	-0.008		-0.008		-0.009		-0.008	
Age	0.000***	4.85	0.000***	2.68	0	1.62	0.000***	5.36
	0		0		0		0	
Cons	0.013	0.98	0.026***	2.22	0.011	0.92	0.044***	4.08
	-0.013		-0.012		-0.012		-0.01	
Observations	322		323		325		310	
R-square	0.409		0.41		0.298		0.389	
F	10.69***		10.53***		22.54***		9.21***	

Note: ***, **, * Indicates the significance level at 1%, 5% and 10% respectively.

Table 6: OLS Fixed and Random Effect

Variables	ROA		ROA		ROA		ROA	
	Coefficient Value	z-value	Coefficient Value	z-value	Coefficient Value	z-value	Coefficient Value	z-value
LNCEO	0.003***	2.9						
	-0.001							
LEV	-0.028***	-3.43	-0.029***	-3.29	-0.032***	-3.57	-0.027***	-3.18
	-0.008		-0.008		-0.009		-0.008	
Age	0.000**	2.22	0.000**	2.26	0.000*	1.8	0.000***	2.82
	0		0		0		0	
Cons	0.013	0.87	0.040***	2.79	0.026***	1.76	0.044***	4.1
	-0.015		-0.014		-0.014		-0.01	
Obs	322		323		325		310	
R-square	0.288		0.272		0.266		0.282	
F/Wald	138.47***		133.02***		137.95***		128.94***	
Hausman	1.25		4.57		4.17		1.29	
	-0.974		-0.6		-0.653		-0.972	

Notes: *, **, *** Indicates the significance level at 1%, 5% and 10% respectively.

In this study, executive compensation (LNCEO), return on investment (ROI), and return on equity (ROE) all had a significant impact on organizational performance. Consistent with other research, such as Muravyev (2017), Mussalli and Cukurova (2018), and others, the findings show that the Proxy of Executive Compensation (LNCEO) has a significant impact on return on investment (ROI), a measure of business performance. These findings are consistent with Duffhues and Kabir (2008) and Lu and Hu (2008). The findings show that the Proxy of Executive Compensation (LNCEO) had a significant impact on return on equity (ROE), which is an indicator of business performance. The

performance sensitivity of executive compensation (LNEXC) had a considerable impact on return on equity (ROE). Like earlier research (Cooke and Propris, 2011) these findings are consistent with previous studies (Cornelli & Karakas, 2015; Muravye, 2017), indicating that return on equity (ROE) is an indicator of corporate performance. Thus, executive remuneration and salary performance sensitivities can all be argued to contribute to organizational effectiveness in the financial sector.

Table 7: Robust Check

Variables	ROE		ROE		ROE		ROE	
	Coefficient Value	z-value	Coefficient Value	z-value	Coefficient Value	z-value	Coefficient Value	z-value
LNCEO	0.049	1.39						
	-0.035							
LEV	-0.583**	-2.44	-0.718***	-3	-0.700***	-2.82	-0.530**	-2.22
	-0.238		-0.239		-0.247		-0.238	
Age	0.000**	0.02	0	0.15	0	0.38	0.002*	1.72
	-0.005		-0.001		-0.001		-0.001	
Cons	0.286	0.71	0.191	0.52	0.233	0.6	0.790***	2.63
	-0.405		-0.367		-0.391		-0.3	
Obs	322		323		325		310	
R-square	0.034		0.113		0.102		0.104	
F/Wald	3.63***		45.43***		41.67***		36.94***	
Hausman	121.1		2.73		11.31		1.85	
(p-value)	0		-0.836		-0.079		-0.932	

Notes: ***, **, * Indicates the significance level at 1%, 5% and 10% respectively.

The findings of the second model for evaluating an organization's efficiency using return on equity are shown in Table 7. The table shows the results based on these conclusions, which are based on a robust analysis. The robustness test result shows that executive compensation (LNCEO) has a significant impact on return on equity, indicating that it has helped to improve the organization's overall performance (ROE). A 3.40 percent movement in ROE was shown to be the result of changes in executive compensation (LNCEO). The model's fitness was demonstrated by a coefficient of determination (R2) of 0.034 and a p-value of 0.035. To put it another way, it was established that the model was statistically significant (LNCEO). A 1% change in executive pay (LNCEO) has been found to be associated with a 4.9% change in ROE, and the related z-value is 1.39%. Linear regression analysis was used to find this connection.

5. Conclusion

The objective of the study is to examine the relationship between executive compensation and bank performance in Pakistan during the period 2005 to 2019. The results are consistent with earlier studies of Muravyev (2017) and Mussalli and Cukurova (2018). The results indicate that the executive compensation has a substantial impact on the return on investment (ROA), a measure of business performance. These findings are congruent with those of Duffhues and Kabir (2008) and Lu and Hu (2005). The results also depict that LNCEO has a substantial impact on return on equity (ROE), which suggests that increase in compensation lead to enhance the performance of banks. This study will explore the new ways for academics and provide new literature; it is more useful for regulators and policymakers. The future study can build by changing the industry and proxies of the variables.

References

Al-Shaer, H., Harakeh, M., (2020). Gender differences in executive compensation on British corporate boards: the role of conditional conservatism. *The International Journal of Accounting, 55*(1), 2050002, DOI: 10.1142/S109440602050002X

Anantharaman, D., Fang, V.W. and Gong, G. (2013). Inside debt and the design of corporate debt contracts. *Management Science, 60* (5), 1260-1280.

Antounian, C., Dah, M. A., & Harakeh, M. (2021). Excessive managerial entrenchment, corporate governance, and firm performance. *Research in International Business and Finance*, *56*, 101392

Antounian, C., Dah, M. A., & Harakeh, M. (2021). Excessive managerial entrenchment, corporate governance, and firm performance. *Research in International Business and Finance*, *56*, 101392.

Ataay, A. (2018). Performance sensitivity of executive pay: the role of ownership structure, board leadership structure and board characteristics, *Economic Research-Ekonomska Istraživanja*, *31*(1), 1152–1168 https://doi.org/10.1080/1331677X.2018.145695.

Bai, G. and Elyasiani, E. (2013). Bank stability and managerial compensation. *Journal of Banking & Finance*, *37*(3), 799-813.

Belkhir, M. and Chazi, A. (2010). Compensation vega, deregulation, and risk-taking: lessons from the US banking industry. *Journal of Business Finance & Accounting*, *37*(9/10), 1218-1247.

Borisova, G., Brockman, P., Salas, J. M., & Zagorchev, A. (2012). Government ownership and corporate governance: Evidence from the EU. *Journal of Banking & Finance*, *36*(11), 2917-2934.

Caskey, J. and Laux, V. (2017). Corporate governance, accounting conservatism, and manipulation, *Management Science*, *63*(2), 424-437.

Chen, J., Ezzamel, M., & Cai, Z. (2011). Managerial power theory, tournament theory, and executive pay in China. *Journal of corporate finance*, *17*(4), 1176-1199.

Coles, J. L., Daniel, N. D., & Naveen, L. (2014). Co-opted boards. *The Review of Financial Studies*, *27*(6), 1751-1796.

Conyon, M. J. (2014). Executive compensation and board governance in US firms. *The Economic Journal*, *124*(574), F60-F89.

Cooke, P., & De Propris, L. (2011). A policy agenda for EU smart growth: the role of creative and cultural industries. *Policy Studies*, *32*(4), 365-375.

Cornelli F., Karakaş O. (2015). *Cornelli, Francesca and Karakaş, Oğuzhan, CEO Turnover in LBOs: The Role of Boards*. Available at SSRN: https://ssrn.com/abstract=2269124.

Duffhues, P. and Kabir, R. (2008). Is the pay–performance relationship always positive? Evidence from the Netherlands. *Journal of Multinational Financial Management, 18* (1), 45-60.

Elsilä, A., Kallunki, J. P., Nilsson, H., & Sahlström, P. (2013). CEO personal wealth, equity incentives and firm performance. *Corporate Governance: An International Review*, *21*(1), 26-41.

Faleye, O. (2007). Classified boards, firm value, and managerial entrenchment. *Journal of financial economics*, *83*(2), 501-529.

Faulkender, M., Kadyrzhanova, D., Prabhala, N., & Senbet, L. (2010). Executive compensation: An overview of research on corporate practices and proposed reforms. *Journal of Applied Corporate Finance*, *22*(1), 107–118.

Grund, C., & Westergaard-Nielsen, N. (2008). The dispersion of employees' wage increases and firm performance. *ILR Review*, *61*(4), 485-501.

He, Y., Chiu, Y. H., & Zhang, B. (2015). The impact of corporate governance on state-owned and non-state-owned firms efficiency in China. *The North American Journal of Economics and Finance*, *33*, 252-277.

Hibbs Jr, D. A., & Locking, H. (2000). Wage dispersion and productive efficiency: Evidence for Sweden. *Journal of Labor Economics*, *18*(4), 755-782.

Huang, H. H., Huang, H., & Shih, P. T. (2012). Real options and earnings-based bonus compensation. *Journal of Banking & Finance*, *36*(8), 2389-2402.

Idehlu, H. A., Sadeghabad, A. J., & Pagheh, B. (2019). Increasing the efficiency and effectiveness of government organizations with the contracts of salary payment on the basis of consequence and outcome. *International Journal of Innovative Technology and Exploring Engineering, 8*(11), 2443–2445.

Jensen, M. C., & Meckling, W. H. (2019). Theory of the firm: Managerial behavior, agency costs and ownership structure. In *Corporate Governance* (pp. 77-132). Gower.

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of political economy*, *98*(2), 225-264.

Joutsenvirta, Maria (2013). Executive Pay and Legitimacy: Changing Discursive Battles Over the Morality of Excessive Manager Compensation. *Journal of Business Ethics*, *116*(3), 459–477. doi:10.1007/s10551-012-1485-1

Kale, J. R., Reis, E., & Venkateswaran, A. (2009). Rank-order tournaments and incentive alignment: The effect on firm performance. *The Journal of Finance*, *64*(3), 1479-1512.

Kwak, B. and Mo, K. (2017). Executive pension, default risk, and earnings management. *Asia-Pacific Journal of Accounting and Economics*, *25*(4):1-18, DOI:10.1080/16081625.2016.1277951

Lazear, E. P. (1989). Pay equality and industrial politics. *Journal of political economy*, *97*(3), 561-580.

Lin, H. C., Chou, T. K., & Wang, W. G. (2012). Capital structure and executive compensation contract design: a theoretical and empirical analysis. *Journal of Banking & Finance*, *36*(1), 209-224.

Low, A. (2009). Managerial risk-taking behavior and equity-based compensation. *Journal of financial economics*, *92*(3), 470-490.

Lu, Z., & Zhu, J. (2020). Tracing back to the source: Understanding the corporate governance of boards of directors in Chinese SOEs. *China Journal of Accounting Research*, *13*(2), 129-145.

Mubeen, R., Han, D., Abbas, J., & Hussain, I. (2020). The effects of market competition, capital structure, and CEO duality on firm performance: A mediation analysis by incorporating the GMM model technique. *Sustainability*, *12*(8), 3480.

Muravyev A. (2017). Boards of directors in Russian publicly traded companies in 1998–2014: Structure, dynamics, and performance effects. *Economic Systems*, *41*(1), 5–25.

Murphy, K. J., & Jensen, M. C. (2018). The Politics of Pay: The Unintended Consequences of Regulating Executive Compensation. *Journal of Law, Finance, and Accounting*, *3*(2), 189-242.

Mussalli G.D. and Cukurova S. (2018). Appointing an Interim CEO? Not surprising if you failed the corporate governance test. *Pensions & Investments*, August 16. *Available at: https://www.pionline.com/article/20180816/ONLINE/180819977/commentary-appointing-an-interim-ceo-not-surprising-if-you-failed-the-corporate-governance-test*.

Naseem, M. A., Lin, J., ur Rehman, R., Ahmad, M. I., & Ali, R. (2019). Does capital structure mediate the link between CEO characteristics and firm performance? *Management Decision*, *58*(1), 164-181.

Ntim, C. G., Lindop, S., Thomas, D. A., Abdou, H., & Opong, K. K. (2017). Executive pay and peformance: the moderating effect of CEO power and governance structure. *The International Journal of Human Resource Management*, *30*(6), 921-963.

Sun, B. (2014). Asset returns under periodic revelations of earnings management. *International Economic Review*, *55*(1), 255-282.

Sundaram, R.K. and Yermack, D. (2007). Pay me later: Inside debt and its role in managerial compensation. *The Journal of Finance*, 62(4), 1551–1587.

Tang, C. H. (2012). Revisiting the incentive effects of executive stock options. *Journal of Banking & Finance*, *36*(2), 564-574.

Van der Elst, C., & Lafarre, A. (2017). Shareholder voice on executive pay: A decade of Dutch Say on Pay. *European Business Organization Law Review*, *18*(1), 51-83. DOI 10.1007/s40804-017-0065-3.

Van Essen, M., Otten, J., & Carberry, E. J. (2015). Assessing managerial power theory: A meta-analytic approach to understanding the determinants of CEO compensation. *Journal of management*, *41*(1), 164-202.

Wade, J. B., O'Reilly III, C. A., & Pollock, T. G. (2006). Overpaid CEOs and underpaid managers: Fairness and executive compensation. *Organization science*, *17*(5), 527-544.