# THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE, EMPLOYEE SALARIES, SALARY GAPS AND FINANCIAL PERFORMANCE 

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#### Abstract

Given the scarcity of literature exploring the nexus between corporate governance and employee salaries, this study investigates the impact of corporate governance on employee compensation and its subsequent effects on financial performance. We identify a positive correlation between robust corporate governance and higher employee salaries, which in turn enhances firm profitability and value. Our findings also suggest that employee salaries act as a partially mediate in the relationship between corporate governance and firm value, indicating a nuanced mechanism through which governance quality influences organisational outcomes. Notably, we observe that enhanced corporate governance is associated with a wider salary gap between management and non-management employees, a factor that might adversely affect financial performance. These results underscore the complex dynamics between corporate governance and employee compensation strategies, contributing to a deeper understanding of their interplay.


Keywords: Corporate governance, Employee salary, Salary gap, Firm values, Financial performance

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## INTRODUCTION

In addition to shareholders, corporate operations also influence a number of other stakeholders, including creditors, customers, employees, suppliers, communities and governments. The stakeholder theory stresses that firm managers must balance the interests of all stakeholders and engage in appropriate management activities (Freeman, 2010). Compared to conventional shareholder primacy perspectives, this theory holds that the development of any firm requires the investment and participation of all stakeholders. This means that firms should pursue the overall interests of all stakeholders rather than the interests of only certain entities. However, employee salary gaps are currently widening, not between employees of the same firm, but rather between firms (Song et al., 2019). We therefore investigated salary gaps from the perspective of corporate governance.

A number of existing studies have demonstrated that corporate governance not only affects the long-term development of firms but also determines their operating performance in the capital market (Gompers et al., 2003; Chen et al., 2007; Suhadak et al., 2019) and even market liquidity (Wang et al., 2012), industry competitiveness (Giroud \& Mueller, 2010), and risk-taking abilities (Ali et al., 2022). Among studies examining the relationship between corporate governance and employees, many have indicated that if firms treat their employees well, operating performance is enhanced, thereby generating maximum shareholder wealth (Jiao, 2010; Ertugrul, 2013; Chen et al., 2016; Fauver et al., 2018). Most nonmanagement employees, however, rely on their salaries to maintain their daily needs. In firms, salaries are the remuneration paid to employees in exchange for their labors. A quid pro quo relationship exists between work value and the salary paid, and salaries are also one of the ways that firms use to attract talent and increase their competitive advantage (Larkin et al., 2012). Can sound corporate governance mechanisms provide employees with better salaries and in turn enhance firm performance? In this study, we employed the corporate governance evaluations from Taiwan Stock Exchange (TWSE) and the mean and median salaries of full-time nonmanagement employees from the Market Observation Post System (MOSP) to investigate the relationships among corporate governance, employee salaries, and firm performance in listed firms in Taiwan.

In an exclusive interview with CNN in May 2014, vice chairman of Berkshire Hathaway, Charlie Munger, bluntly stated that American firms have too many fat cats. According to statistics from the financial magazine Forbes, the CEOs of the top- 500 largest companies in the United States receive high salaries, with an average annual salary as high as USD10 million. Munger said, "Corporate executives should willingly decide to work for less money; I don't
think everybody who's been especially favoured should take the last dollar that he or she should get. I think we all have an obligation to dampen these fires of envy" (La Monica, 2014). Most research focused on the reasonableness of managers compensation and the design of salary structures (Gomez-Mejia \& Wiseman, 1997; Murphy, 1999; Gan et al., 2020; Patiar \& Wang, 2020). However, does corporate governance affect the salary gap between managers, nonmanagement employees, and the financial performance of the firm? According to agency theory (Jensen \& Meckling, 1976), we also explored the relationships between corporate governance and the salary gap between managers and nonmanagement employees.

Our results found that firms with better corporate governance paid significantly higher employee salaries; firms that paid higher employee salaries also had significantly better firm value and financial performance. We also found that employee salaries partially mediated the relationship between corporate governance and firm value; contrary to expectations, firms with better corporate governance had larger salary gaps between managers and nonmanagement employees, and the widening salary gap exerted a negative impact on financial performance.

This article makes three primary contributions to the literature. First, it sheds light on the impact of corporate governance on employee salaries and financial performance, providing a nuanced understanding of how governance practices influence compensation strategies and firm outcomes. Second, it explores the complex relationships between corporate governance and the salary gap between managers and nonmanagement employees, offering insights into the implications of compensation disparities for organisational dynamics and performance. Third, it examines the mediating role of employee salaries in the relationship between corporate governance and financial performance, highlighting the importance of fair and competitive compensation practices in enhancing firm value. Our findings not only address gaps in the existing literature but also provide actionable guidance for boards of directors and salary committees in formulating effective compensation plans that align with corporate governance principles and drive sustainable business success.

## LITERATURE REVIEW AND HYPOTHESES

## Corporate Governance, Employee Salaries and Firm Performance

## Corporate governance and employee salaries

In a better corporate governance system, optimal salary policies and incentive measures are devised to merge employee interests with the overall goals of the organisation (Gibbons \& Murphy, 1992). Ko et al. (2020) indicated that a negative correlation exists between firm performance and fixed salary systems and that changing to variable salaries can improve firm performance. Variable salary systems encourage employees to increase their work efficiency, which benefits firm performance. Boudreaux (2021) further explained that providing a flexible and diverse salary-and-benefits system not only reduces employee turnover but also improves firm profitability and performance.

Zhang et al. (2020) found a significant negative correlation between better employee treatment and corporate fraud risk. That is, when a firm offers improvements in salary and benefits, work environment, and career development opportunities, the likelihood of corporate fraud decreases. Li and Chen (2021) confirmed that higher employee salaries reduce tax avoidance motives and opportunistic behaviour from managers. Furthermore, Liang et al. (2022) indicated that a higher degree of voluntary disclosure helps mitigate information asymmetry; in particular, firms that actively disclose employee salaries pay significantly higher employee salaries.

Stock options are also considered a part of employee salary treatment. Core and Guay (2001) stated that public companies usually use employee stock options to attract and retain certain employees to co-create firm value and maintain shareholder interests. Chang et al. (2015) examined the impact of employee stock options on firm innovation; their results indicated that employee stock options stimulate employee innovation and effectively reduce free riders. The study conducted by Mao and Weathers (2019) also indicated that employee treatment has a positive influence on firm innovation, and they further discovered that innovation plays a crucial mediating role in the relationship between employee treatment and firm value. In addition, Palladino (2022) suggested the establishment of Employee Equity Funds (EEFs) in large corporations, allowing employees to receive dividends and have a say in corporate governance. This approach not only contributes to narrowing wealth inequality but also enhances firm performance and macroeconomic stability.

The studies by Li and Chen (2021) and Liang et al. (2022) showed that firms that fulfill their corporate social responsibility are more likely to raise employee salaries and that the fulfilment of corporate social responsibility requires sound corporate governance mechanisms (Chen et al., 2017). This evidence suggests a direct relationship between the quality of corporate governance and the level of employee salaries. Reflecting on this body of research, we posit the following hypothesis to examine the correlation between corporate governance quality and employee compensation levels more closely.

H1: The firm with better corporate governance has higher employee salaries.

This hypothesis is grounded in the premise that a firm's governance quality directly influences its compensation strategies, with better governance likely leading to more equitable and competitive salary policies for employees.

## Employee salaries and firm performance

Do employee salaries influence firm performance? From the perspective of reciprocity in labour relations, effective human resource management relies on market-related salary and incentive measures and achieving win-win relationships between employees and employers (Akerlof, 1982). Baker et al. (1988) argued that salaries and incentives largely determine the behavioural patterns of employees in firms. The use of incentive salary systems can effectively increase employee productivity, which in turn improves firm profitability (Lazear, 2000). Ko et al. (2020) further indicated that a positive correlation exists between firm performance and the total salary of nonmanagement employees. They also discovered a negative correlation between fixed salaries and firm performance and a positive correlation between variable salaries and firm performance.

Jiao (2010) found a significant positive correlation between stakeholder benefits and firm value, which means that the firm with better employee benefits can enhance firm reputation. Some scholars also found that increasing employee satisfaction has a significantly to increase the stock returns in the long term and raise institution investors' investment willingness (Edmans, 2011; Faleye \& Trahan, 2011). This means that generous salary systems encourage employees to work hard, attract and retain talent, and improve firm performance (Larkin et al., 2012). Chen et al. (2016) examined the relationship between employee treatment and firm innovation performance. Their study indicated that employees play a crucial role during innovation processes; firms that provide more attractive employee salaries and treatment can better motivate employees to participate actively in innovation activities and generate patents in greater quantity and quality, thereby increasing
the firm's return on assets (ROA). In mergers and acquirements, Ertugrul (2013) explored the employee-friendliness of firms and the performance of firms after acquiring other firms; which found that the employee-friendliness of acquiring firms was positively associated with their post-acquisition performance and also increased the success rate and speed of acquisitions. The impact of employeefriendly policies on performance was particularly significant in human-capitalintensive firms. Fauver et al. (2018) further explained that providing employees with more benefits and training as well as equal promotion opportunities helps to improve firm value and profitability. The performance of these firms was also more stable during global financial crises.

Previous studies have confirmed a connection exists between employee salaries and firm performance (Edmans, 2011; Faleye \& Trahan, 2011; Fauver et al., 2018). Considering the extensive evidence highlighting the positive relationship between employee salaries and firm performance, it is imperative to further investigate this link in a more quantifiable manner. Prior research provides a solid foundation for hypothesising that enhanced compensation strategies not only benefit employees but also contribute significantly to the financial health of a firm. In light of this, we propose to systematically examine the impact of employee compensation levels on firm performance, utilising Tobin's Q and ROE as comprehensive measures of firm value and profitability.

## H2: The firm with higher employee salaries can improve financial performance.

This hypothesis is based on the logic that competitive and equitable salary packages are not merely costs but investments in human capital that can yield substantial returns in terms of enhanced firm performance. By focusing on these financial performance indicators, we aim to empirically test the theoretical proposition that higher employee salaries are beneficial to firm profitability and value.

## Corporate Governance, Salary Gap Between Managers and Nonmanagement Employees, and Financial Performance

## Corporate governance and salary gap between executives and nonmanagement employees

CEO salaries is a well-researched topic. Researchers have examined CEO salary levels and reasonable CEO salary structures (Gomez-Mejia \& Wiseman, 1997; Murphy, 1999). CEO salaries have been found to impact corporate governance systems. For instance, Bebchuk and Fried (2003) stated that the CEO salary system is one of the most important aspects of corporate governance. Gan et al.
(2020) also considered that when firms are developing the salary structures of executives, they must allocate stock shares and include non-financial performance indices to make executives work hard and improve long-term firm performance (Mehran, 1995; Patiar \& Wang, 2020).

The findings on salaries and corporate governance are not consistent. Some researchers have indicated that firms with poorer corporate governance mechanisms often pay their managers significantly higher salaries and are prone to agency problems (Core et al., 1999; Basu et al., 2007; Armstrong et al., 2012). Wang et al. (2022) argued that the operating quality of salary committees depends on sound corporate governance mechanisms and higher operating quality can effectively reduce director and supervisor salary increases in firms with lower performance. Lin et al. (2012) observed a positive correlation between executive salaries and cash dividend payments. They also found that the shareholding ratios of managers and active institutional investors and the ratio of independent directors can effectively raise dividend payment levels, which implies that managers salaries link cash dividends to maximum shareholders' wealth and decrease the probability of agency problems.

However, the nature of the work of managers differs from that of nonmanagement employees, and their impacts on firms are not the same. Some studies have indicated that larger salary gaps between managers and nonmanagement employees exert a negative impact on firm performance and the work engagement of nonmanagement employees (Osiichuk, 2022). Furthermore, overly-large salary gaps in the top management group (TMG) will also affect the coordination and operations among TMG members (Siegel \& Hambrick, 2005). TMG members, in particular, pay special attention to their salaries and compare them with the salaries of other TMG members of the same rank and even the salary of the CEO (Ridge et al., 2015).

In contrast, the salary gap between managers and nonmanagement employees encourage nonmanagement employees to work harder and innovate to gain promotions (Zhao \& Wang, 2019). Chen (2021) used the deviation between cash flow rights and control rights in the firm to measure corporate governance performance and employed the book-to-market ratio and ROA as proxy variables for firm profitability to investigate the relationship between corporate governance and salary gaps from managers and nonmanagement employees. The results found that firm with better corporate governance has large salary gap. However, corporate governance mechanisms adjust continually with time and social issues, and the deviation between cash flow rights and control rights in the firm is a single value that cannot completely reflect current conditions in listing firms.

Utilising TWSE corporate governance evaluations as a measure, we examine if enhanced governance is linked to reduce salary disparities between management and nonmanagement staff.

H3: The firm with better corporate governance decreases salary gaps between managers and nonmanagement employees.

This hypothesis aims to test the effectiveness of strong governance in promoting equitable compensation practices.

## Salary gap between managers and nonmanagement employees and financial performance

The nature of the work of managers differs greatly from that of nonmanagement employees. Banker et al. (2016) argued that the widening salary gap between managers and nonmanagement employees has long been a subject of attention in the media and politics and that to a great extent, firm performance is driven by the managers salary premium. However, small salary gaps between managers and nonmanagement employees may affect employee motivation, thereby causing changes in the firm's financial performance.

If managers are considered the agents of firms, agency costs and agency problems may conflict with shareholder interests. Thus, the purpose of the salary system of manager reduce agency problems and the probability of ethical crises in managers (Batson et al., 1997). Gomez-Mejia and Wiseman (1997) found that the design of managers salary systems must consider salary standards and the means and form of payment to reduce agency problems (Bebchuk \& Fried, 2003). On the other hand, Pan et al. (2020) examined the relationship between salary gaps and the innovation efficiency of firms. The empirical results implies that when employees believe that they are not being rewarded suitably for their efforts and commitment, it will have an adverse impact on firm innovation efficiency. Pan et al. (2022) explained that the salary gap between the CEO and employees may exert a negative influence on firm value.

Does the salary gap between managers and nonmanagement employees affect financial performance? Przychodzen and Gómez-Bezares (2021) found that there is a cubic relationship between the salary gap between CEO and employees and corporate productivity. Specifically, when the salary gap is either too low or too high, it has an adverse impact on the company's productivity. This means that the effect of the salary gap is not linear but rather exhibits a complex relationship, with the most significant impact occurring when the gap is both too small and too large. In contrast, when the gap is moderate, its effect on productivity is relatively
smaller. Osiichuk (2022) explained that as the salary gap between managers and nonmanagement employees widens, it will suppress the productivity of employees, increase employee turnover, and have a negative related to employee motivation. This implies that the salary gap between managers and nonmanagement employees does not have a significant effect on the financial performance of firms. However, Chen (2021) found that as the salary gap between managers and nonmanagement employees widens, it can improve the financial performance of firms. To assess how salary disparities between managerial and non-managerial roles influence a company's financial outcomes, we employ Tobin's Q and ROE as indicators of financial performance.

H4: The firm with large salary gaps between managers and nonmanagement employees reduce financial performance.

This hypothesis seeks to explore the premise that wider salary gaps negatively impact firm performance, aiming to provide empirical evidence on this relationship.

## METHODOLOGY

## Data Source

We chose Taiwan's listed companies for our study for several reasons. Firstly, the TWSE represents a diverse range of industries, from traditional manufacturing to high-tech sectors, ensuring that our sample covers a broad spectrum of economic activities and corporate governance practices. This diversity is crucial for examining the varied impacts of corporate governance on employee compensation across different industry contexts. Secondly, Taiwan's unique economic environment and corporate landscape offer an ideal setting for this study. The island's economy plays a pivotal role in the global supply chain, particularly in the electronics and semiconductor industries, highlighting the sophistication and depth of its market. Furthermore, Taiwan's commitment to enhancing corporate governance is evidenced by recent regulatory initiatives, such as the "Corporate Governance 3.0Sustainable Development Roadmap"(Financial Supervisory Commission, R.O.C. [Taiwan], 2020). launched by the Financial Supervisory Commission in 2021. These efforts aim to improve board functionality, transparency, and stakeholder communication, aligning with international standards and fostering a sustainable governance culture. The progress in this area is reflected in Taiwan's ranking in the "CG Watch 2023" report by the Asian Corporate Governance Association (2023), where it tied with Singapore for third place, trailing only behind Australia and Japan. Additionally, the stringent information disclosure requirements for listed companies in Taiwan ensure the availability of high-quality and reliable
financial and governance data, which is crucial for the accuracy and validity of our research.

In 2019, the TWSE mandated all listed companies to disclose the mean and median salaries of their employees, significantly enhancing transparency in compensation practices. This regulatory change provided researchers with a comprehensive dataset to analyse the relationship between corporate governance and employee compensation. The salary data of full-time nonmanagement employees primarily originated from the Market Observation Post System (MOPS). We manually collected the mean and median employee salaries across 28 industries from 2019 to 2021, along with corporate governance evaluations (CGE), salary multiple between managers and employees, and financial data from the databases of the Taiwan Economic Journal (TEJ). After excluding samples with missing data, the dataset includes 768 listed firms with 2,304 observed values in annual data. However, data on the salary multiple between managers and employees were available for only 680 listed firms, resulting in 2,040 observed values in this study. The data frequency is annual, and the data type is panel data.

## Empirical Models

To explore whether the firm with better corporate governance has higher employee salaries as H1, we employed ordinary least squares (OLS) regression analysis. The choice of OLS is based on the structure of our data and the nature of our research question. Given that our data is panel data, and our research objective is to examine the relationship between corporate governance, employee salaries, and the salary gap with firm performance, the OLS method is suitable for estimating the linear relationships between these variables. The model is specified as Equation (1):

$$
\begin{equation*}
\text { Employee Salary }_{i, j, t}=\alpha_{0}+\alpha_{j}+\alpha_{t}+\beta \text { CGE }_{i, j, t}+\lambda \text { Control }_{i, j, t}+\varepsilon_{i, j, t} \tag{1}
\end{equation*}
$$

where Employee Salary $_{i j, t}$ denotes the natural logarithms salary of full-time nonmanagement employees mean and median in Firm $i$ in Industry $j$ in Year $t$, $\alpha_{0}$ is the intercept term, and $\alpha_{j}$ and $\alpha_{t}$ are the fixed effects of industry and year, respectively. Independent variable $C G E_{i, j, t}$ is the corporate governance evaluation result of Firm $i$ in Industry $j$ in Year $t$. The control variables according to Li and Chen (2021), Wang et al. (2022), and Liang et al. (2022), which include Firm Size, Book-to-Market Ratio (B/M), Return on Assets (ROA) and Debt Ratio. Finally, $\varepsilon_{i, j, t}$ denotes the error term of Firm $i$ in Industry $j$ in Year $t$.

We examine the relationship between full-time nonmanagement employees and financial performance according to H 2 , using this equation:

$$
\begin{equation*}
\operatorname{Prof}_{i, j, t}=\alpha_{0}+\alpha_{j}+\alpha_{t}+\beta \text { Employee Salary }_{i, j, t}+\lambda \text { Control }_{i, j, t}+\varepsilon_{i, j, t} \tag{2}
\end{equation*}
$$

where $\operatorname{Prof}_{i, j, t}$ denotes the financial performance at Firm $i$ in Industry $j$ in Year $t$, which include the Tobin's Q and ROE as proxies for firm value and profitability. Employee Salary $i_{i, j}$ is defined as the same as Equation (1). The control variables included in the analysis are Firm Size, B/M, ROA and Debt Ratio.

We also consider the impact of corporate governance on salary gap between managers and nonmanagement employees to examine the H 3 , establishing the following as the Equation (3):

$$
\begin{equation*}
{\text { Salary } \text { Gap }_{i, j, t}=\alpha_{0}+\alpha_{j}+\alpha_{t}+\beta \text { CGE }_{i, j, t}+\lambda \operatorname{Control}_{i, j, t}+\varepsilon_{i, j, t}, t .} \tag{3}
\end{equation*}
$$

where Salary Gap $i_{i, t}$ is the difference between the salaries of executives and nonmanagement employees in Firm $i$ in Industry $j$ in Year $t . C G E_{i, j, t}$ is defined as the same as Equation (1). Included in this analysis as control variables are the Firm Size, B/M, ROA and Debt Ratio.

According to H 4 , we established the Equation (4) to examine the relationship between the financial performance and salary gap as following.

$$
\begin{equation*}
\operatorname{Prof}_{i, j, t}=\alpha_{0}+\alpha_{j}+\alpha_{t}+\beta{\text { Salary } \text { Gap }_{i, j, t}+\lambda \text { Control }_{i, j, t}+\varepsilon_{i, j, t},} \tag{4}
\end{equation*}
$$

where $\operatorname{Prof}_{i, j, t}$ is the financial performance at Firm $i$ in Industry $j$ in Year $t$, which include the Tobin's Q and ROE as proxies for firm value and profitability. Salary $G a p_{i, j, t}$ is defined as the same as Equations (3) and (1). For this analysis, control variables comprise the Firm Size, B/M, ROA and Debt Ratio. Regarding the definitions and measurement methods of each variable, please refer to the explanations in the Appendix.

## ANALYSIS OF EMPIRICAL RESULTS

## Descriptive Statistics

Table 1 presented the descriptive statistics. Panel A indicated the main variables, which includes CGE, mean employee salary, median employee salary, salary gap between managers and nonmanagement employees, Tobin's Q, and ROE, which detailed definitions and methods of measurement are given in the Appendix.

The mean and median of corporate governance were 3.522 and 4.000. The mean and median of full-time nonmanagement employee salaries were NTD881,774 and NTD764,000. The maximum was NTD5,150,000; the minimum was only NTD312,000, and the standard deviation reached NTD423,832. The mean of the median salaries was NTD767,591. The maximum was NTD4,333,000; the minimum was also a low NTD322,000, and standard deviation was a high NTD357,336. Thus, the salary levels of the sample firms ranged enormously. We used Tobin's Q as a proxy variable for firm value, for which the mean and median were 1.477 and 1.186 . These values greater than 1 mean that investors held positive views towards the value of the sample firms and had confidence in their operational performance. The mean and median of ROE were respectively $7.391 \%$ and $7.855 \%$, indicating a certain level of profitability among the sample firms. Panel B shown the descriptive statistics of control variables.

Table 2 exhibits the descriptive statistics of employee salary in each industry. The semiconductor industry had the highest mean employee salary at NTD1,326,261. Other industries with mean annual salaries over NTD1 million included the finance and insurance industry, the electronic products distribution industry, and the shipping and transportation industry. The industry with the lowest mean employee salary was tourism at only NTD506,729. In terms of the median employee salary, the semiconductor industry was still the highest at NTD1,143,522, followed by the finance and insurance industry with NTD986.598; the industry with the lowest median employee salary was tourism at only NTD437,750. Thus, employee salary levels vary significantly from industry to industry. Table 3 presents the descriptive statistics of the salary gap between managers and employees in each industry. The industry with the highest salary gap was trading and consumer goods at 7.718 , followed by 7.319 in electronic parts and components. The industry with the lowest ratio was shipping and transportation at 2.729.

Table 1
Descriptive statistics

| Variables | No. of samples | Mean | Median | S.D. | Max. | Min. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Panel A: Main variables |  |  |  |  |  |  |
| CGE | 2,304 | 3.522 | 4.000 | 1.970 | 7.000 | 0.000 |
| Mean employee <br> salary (NTD/ <br> person) | 2,304 | 881,774 | 764,000 | 423,832 | $5,150,000$ | 312,000 |
| Median employee <br> salary (NTD/ | 2,304 | 767,591 | 675,000 | 357,364 | $4,333,000$ | 322,000 |
| person) |  |  |  |  |  |  |
| Salary gap |  |  |  |  |  |  |
| Tobin's Q | 2,040 | 5.204 | 3.960 | 4.447 | 56.290 | 0.004 |
| ROE (\%) | 2,304 | 1.477 | 1.186 | 1.072 | 19.670 | 0.458 |
| Panel B: Control variables | 2,304 | 7.391 | 7.855 | 23.374 | 122.370 | -786.280 |
| Total assets (NTD | 2,304 | 140,681 | 10,055 | 718,812 | $11,594,361$ | 17 |
| million) |  |  |  |  |  |  |
| B/M | 2,304 | 2.131 | 1.500 | 3.361 | 124.500 | 0.340 |
| ROA (\%) | 2,304 | 8.544 | 7.440 | 8.737 | 79.550 | -43.650 |
| Debt ratio (\%) | 2,304 | 47.225 | 46.945 | 20.704 | 99.540 | 0.490 |

Notes: In Panel A, CGE data were sourced from the Taiwan Economic Journal (TEJ) Corporate Governance TWSE Corporate Governance Evaluation Database, with evaluation results for listed companies over various periods assigned virtual variables from 7 (best) to 0 (worst). Information on the mean and median salaries of nonmanagerial full-time employees was sourced from the "information about salary of full-time employees who are not in a managerial position" published on the Market Observation Post System (MOPS). In this study, Tobin's Q is utilised as a proxy for firm value, and ROE is used as a proxy for financial performance. In Panel B, the control variable for total assets is expressed as the natural logarithm (ln Assets), serving as a proxy for firm size.
Table 2
Descriptive statistics of employee salaries for each industry

| Industry category no. | Industry category | No. of samples | Mean employee salary (NTD1,000/person) |  |  |  | Median employee salary (NTD1,000/person) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean | S.D. | Min. | Max. | Mean | S.D. | Min. | Max. |
| 01 | Cement | 21 | 854.000 | 284.812 | 505.000 | 1,312.000 | 761.857 | 228.405 | 469.000 | 1,132.000 |
| 02 | Food | 63 | 710.937 | 259.021 | 312.000 | 1,591.000 | 625.381 | 220.062 | 322.000 | 1,382.000 |
| 03 | Plastic | 54 | 985.593 | 347.737 | 473.000 | 1,590.000 | 904.907 | 336.729 | 389.000 | 1,435.000 |
| 04 | Textile | 123 | 599.504 | 166.904 | 418.000 | 1,348.000 | 533.675 | 146.743 | 354.000 | 1,226.000 |
| 05 | Electric machinery | 120 | 656.708 | 147.960 | 426.000 | 1,025.000 | 581.183 | 128.172 | 387.000 | 935.000 |
| 06 | Electrical and cable | 39 | 719.462 | 221.509 | 467.000 | 1,635.000 | 631.385 | 149.185 | 429.000 | 1,100.000 |
| 07 | Chemical | 81 | 807.074 | 217.110 | 499.000 | 1,706.000 | 727.753 | 194.508 | 439.000 | 1,527.000 |
| 08 | Biotechnology and medical care | 81 | 728.123 | 134.359 | 514.000 | 1,030.000 | 632.802 | 112.709 | 464.000 | 899.000 |
| 09 | Glass and ceramic | 15 | 641.400 | 70.419 | 550.000 | 755.000 | 542.067 | 92.127 | 406.000 | 692.000 |
| 10 | Paper and pulp | 18 | 738.278 | 119.087 | 563.000 | 1,003.000 | 695.444 | 121.078 | 525.000 | 941.000 |
| 11 | Iron and steel | 87 | 752.092 | 329.640 | 450.000 | 2,360.000 | 691.667 | 304.253 | 410.000 | 2,226.000 |
| 12 | Rubber | 33 | 783.303 | 343.490 | 466.000 | 1,998.000 | 703.697 | 311.459 | 446.000 | 1,806.000 |
| 13 | Automobile | 72 | 753.486 | 385.250 | 462.000 | 2,425.000 | 662.417 | 317.741 | 403.000 | 1,936.000 |
| 14 | Semiconductor | 207 | 1,326.261 | 799.455 | 485.000 | 5,150.000 | 1,143.522 | 683.293 | 382.000 | 4,333.000 |
| 15 | Computer and peripheral equipment | 171 | 997.877 | 324.260 | 503.000 | 2,777.000 | 850.877 | 260.174 | 404.000 | 1,937.000 |
| 16 | Optoelectronics | 180 | 765.478 | 237.966 | 443.000 | 1,683.000 | 647.528 | 189.828 | 358.000 | 1,378.000 |
| 17 | Communications and internet | 63 | 955.762 | 288.498 | 442.000 | 1,805.000 | 805.460 | 272.661 | 360.000 | 1,589.000 |

Table 2 (Continued)

| Industry category no. | Industry category | No. of samples | Mean employee salary (NTD1,000/person) |  |  |  | Median employee salary (NTD1,000/person) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean | S.D. | Min. | Max. | Mean | S.D. | Min. | Max. |
| 18 | Electronic parts and components | 63 | 851.603 | 323.226 | 507.000 | 1,764.000 | 746.556 | 284.630 | 441.000 | 1,516.000 |
| 19 | Electronic products distribution | 57 | 1,094.649 | 290.866 | 554.000 | 1,981.000 | 931.632 | 208.745 | 475.000 | 1,484.000 |
| 20 | Information services | 36 | 954.306 | 191.231 | 658.000 | 1,405.000 | 828.417 | 151.144 | 594.000 | 1,125.000 |
| 21 | Other electronics | 108 | 979.731 | 575.943 | 440.000 | 4,103.000 | 847.667 | 440.198 | 398.000 | 3,390.000 |
| 22 | Building material and construction | 150 | 907.040 | 315.789 | 417.000 | 2,598.000 | 797.447 | 244.072 | 417.000 | 1,767.000 |
| 23 | Shipping and transportation | 66 | 1,081.682 | 548.257 | 545.000 | 3,616.000 | 961.288 | 489.262 | 506.000 | 3,337.000 |
| 24 | Tourism | 48 | 506.729 | 84.841 | 384.000 | 762.000 | 437.750 | 67.790 | 337.000 | 670.000 |
| 25 | Finance and insurance | 102 | 1,183.775 | 210.412 | 756.000 | 1,782.000 | 986.598 | 186.881 | 648.000 | 1,479.000 |
| 26 | Trading and consumer goods | 42 | 693.359 | 180.735 | 430.000 | 1,035.000 | 608.405 | 160.423 | 346.000 | 909.000 |
| 27 | Gas and electricity | 24 | 990.792 | 274.314 | 475.000 | 1,546.000 | 929.792 | 282.522 | 384.000 | 1,452.000 |
| 28 | Other | 180 | 763.706 | 242.020 | 427.000 | 1,418.000 | 659.572 | 202.425 | 359.000 | 1,329.000 |
| Total |  | 2,304 | 881.774 | 423.832 | 312.000 | 5,150.000 | 767.597 | 357.336 | 322.000 | 4,333.000 |

Notes: The sample period was from 2019 to 2021. Information on the mean and median salaries of non-managerial full-time employees was sourced from the "information about salary of full-time employees who are not in a managerial position" published on the Market Observation Post System (MOPS).

Table 3
Descriptive statistics of salary gap between executives and nonmanagement employees for each industry

| Industry | Industry category | No. of samples | Salary gap between managers and employees |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean | S.D. | Min. | Max. |
| 01 | Cement | 18 | 6.545 | 7.651 | 1.700 | 25.810 |
| 02 | Food | 51 | 6.048 | 5.583 | 0.190 | 25.210 |
| 03 | Plastic | 48 | 4.707 | 1.670 | 2.080 | 9.890 |
| 04 | Textile | 108 | 4.591 | 2.690 | 1.310 | 15.020 |
| 05 | Electric machinery | 117 | 5.209 | 3.421 | 0.630 | 24.290 |
| 06 | Electrical and cable | 36 | 4.270 | 2.336 | 1.430 | 12.970 |
| 07 | Chemical | 75 | 3.488 | 1.881 | 0.490 | 10.690 |
| 08 | Biotechnology and medical care | 72 | 4.895 | 2.228 | 0.980 | 13.950 |
| 09 | Glass and ceramic | 15 | 3.481 | 0.946 | 2.310 | 5.910 |
| 10 | Paper and pulp | 12 | 3.758 | 1.811 | 0.990 | 6.030 |
| 11 | Iron and steel | 81 | 4.421 | 2.870 | 0.270 | 15.010 |
| 12 | Rubber | 27 | 4.982 | 2.593 | 1.030 | 9.630 |
| 13 | Automobile | 72 | 4.570 | 2.074 | 1.170 | 11.090 |
| 14 | Semiconductor | 195 | 6.536 | 5.908 | 0.910 | 31.580 |
| 15 | Computer and peripheral equipment | 159 | 6.613 | 4.862 | 1.150 | 30.780 |
| 16 | Optoelectronics | 150 | 6.163 | 5.027 | 1.300 | 31.160 |
| 17 | Communications and internet | 48 | 5.162 | 3.819 | 0.040 | 17.700 |
| 18 | Electronic parts and components | 63 | 7.319 | 6.112 | 0.730 | 27.890 |
| 19 | Electronic products distribution | 57 | 5.630 | 3.945 | 0.540 | 21.240 |
| 20 | Information services | 36 | 4.880 | 2.412 | 2.440 | 13.140 |
| 21 | Other electronics | 105 | 5.382 | 6.521 | 0.090 | 56.290 |
| 22 | Building material and construction | 126 | 3.213 | 1.852 | 0.470 | 11.420 |
| 23 | Shipping and transportation | 60 | 2.759 | 1.187 | 0.510 | 5.850 |
| 24 | Tourism | 42 | 3.654 | 2.299 | 0.960 | 10.280 |
| 25 | Finance and insurance | 57 | 3.530 | 1.662 | 1.520 | 9.930 |
| 26 | Trading and consumer goods | 33 | 7.718 | 8.648 | 1.590 | 37.370 |
| 27 | Gas and electricity | 24 | 5.891 | 7.901 | 1.030 | 28.840 |
| 28 | Other | 153 | 5.419 | 4.479 | 0.510 | 36.670 |
| Total |  | 2,040 | 5.204 | 4.447 | 0.040 | 56.290 |

Notes: The sample period was from 2019 to 2021. The data frequency is annual, encompassing a total of 2,040 observations across 680 listed companies. The multiplier data for the salary difference between senior managers and rank-and-file employees were sourced from the Taiwan Economic Journal (TEJ) Corporate Governance Database.

## Main Results

Corporate governance, employee salaries and financial performance
Previous studies focused on corporate governance and CEO salaries. We therefore employed the CGE from TWSE and the salary of full-time nonmanagement employees from MOPS to explore the H1 by Equation (1). We used the Tobin's Q and ROE as proxies for financial performance in Equation (2) to examine the H2. The control variables include nature logarithms total assets, B/M, ROA and debt ratio. We also consider the fixed effect of industries and years.

Table 4 presented the results of the relationship between corporate governance and employee salaries. In Model (1), the dependent variable is mean of employee salaries. The coefficient of CGE is 0.021 positively significant at $1 \%$ level. The dependent variable is median of employee salary in Model (2), and the coefficient of CGE is also positively significant related at the $1 \%$ level. The results imply that firms with better corporate governance paid significantly higher employee salaries.

Table 5 presented the empirical results of the impact of employee salaries on financial performance. In Models (1) and (2), the coefficients of mean and median employee salary are 0.600 and 0.513 positively significantly related to Tobin's Q. In Models (3) and (4), the of mean and median employee salary positively significantly related to ROE at the $1 \%$ level. The results imply that the firm with higher employee salaries can enhance firm value and improve profitability.

Thus, a firm with better corporate governance performance can improve the salaries of nonmanagement employees. A firm with sound corporate governance mechanisms enhances corporate social responsibility practice (Chen et al., 2017) by paying attention to the rights of stakeholders such as employees. The analysis results support H1. On the other hand, a firm with higher employee salaries can improve financial performance, which implies when employee salaries are higher, employees work harder and maximise shareholder wealth. The results are similar of Jiao (2010) and Boudreaux (2021). H2 was also supported.

Table 4
Employee salary and corporate governance

| Variables | Mean employee salary | Median employee salary |
| :--- | :---: | :---: |
|  | Model (1) | Model $(2)$ |
| Intercept | $5.461^{* * *}(75.187)$ | $5.513^{* * *}(74.259)$ |
| CGE | $0.021^{* * *}(5.785)$ | $0.022^{* * *}(5.750)$ |
| Control variables |  |  |
| Firm size | $0.084^{* * *}(17.032)$ | $0.074^{* * *}(14.534)$ |
| B/M | $0.012^{* * *}(7.119)$ | $0.011^{* * *}(6.093)$ |
| ROA | $0.008^{* * *}(10.223)$ | $0.007^{* * *}(8.812)$ |
| Debt ratio | $-0.002^{* * *}(-5.194)$ | $-0.002^{* * *}(-5.719)$ |
| Year effect | Yes | Yes |
| Industry effect | Yes | Yes |
| Observed values | 2,304 | 2,304 |
| Adjusted R 2 | 0.511 | 0.467 |
| $F$-value | $71.829^{* * *}$ | $60.233^{* * *}$ |

Notes: The dependent variables have mean employee salary and median employee salary in Model (1) and Model (2). The independent variable is CGE. The control variables include firm size, B/M, ROA and Debt Ratio, with Firm Size measured by the natural logarithm of total assets (ln Assets). ***, **, * indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$ values.

Table 5
Employee salaries and financial performance

| Variables | Tobin's Q |  | ROE |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) | Model (4) |
| Intercept | -0.516 | -0.081 | $-63.694^{* * *}$ | $-61.128^{* * *}$ |
|  | $(-1.360)$ | $(-0.214)$ | $(-6.879)$ | $(-6.658)$ |
| Mean employee salary | $0.600^{* * *}$ |  | $6.287^{* * *}$ |  |
|  | $(9.866)$ |  | $(4.233)$ |  |
| Median employee salary |  | $0.513^{* * *}$ |  | $5.751^{* * *}$ |
|  |  | $(8.584)$ |  | $(3.955)$ |
| Control variables |  |  |  |  |
| Firm size | $-0.136^{* * *}$ | $-0.123^{* * *}$ | $1.233^{* * *}$ | $1.347^{* * *}$ |
|  | $(-9.815)$ | $(-8.966)$ | $(3.632)$ | $(4.055)$ |
| B/M ratio | $0.158^{* * *}$ | $0.160^{* * *}$ | $-1.189^{* * *}$ | $-1.173^{* * *}$ |
|  | $(30.604)$ | $(30.916)$ | $(-9.421)$ | $(-9.318)$ |
| ROA | $0.026^{* * *}$ | $0.027^{* * *}$ | $1.312^{* * *}$ | $1.322^{* * *}$ |
|  | $(11.759)$ | $(12.308)$ | $(24.182)$ | $(24.501)$ |

(Continued on next page)

Table 5 (Continued)

| Variables | Tobin's Q |  | ROE |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) | Model (4) |
| Debt ratio | $-0.003^{* *}$ | $-0.003^{* *}$ | $-0.129 * * *$ | $-0.129 * * *$ |
| Year effect | $(-2.501)$ | $(-2.541)$ | $(-5.110)$ | $(-5.091)$ |
| Industry effect | Yes | Yes | Yes | Yes |
| Observed values | Yes | Yes | Yes | Yes |
| Adjusted R 2 | 2,304 | 2,304 | 2,304 | 2,304 |
| F-value | 0.473 | 0.468 | 0.338 | 0.338 |

Notes: The dependent variables have Tobin's Q and ROE. The independent variables are mean employee salary and median employee salary. The control variables include firm size, $\mathrm{B} / \mathrm{M}$, ROA and debt ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ${ }^{* * *},{ }^{* *}, *$ indicate statistical significance at the $1 \%$, $5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$-values.

## Corporate governance, salary gap and financial performance

Previous studies have presented varying arguments on the relationship between corporate governance and the salary gap between managers and nonmanagement employees. Chen (2021) indicated a significant positive correlation between corporate governance and the salary gap between managers and nonmanagement employees. Thereby, we employ the Equations (3) and (4) to test H3 and H4. We use the salary multiple between managers and nonmanagement employees to measure the salary gap. We also consider the industrial and year fixed effect.

The results of relationship among corporate governance, salary gap and financial performance are presented in Table 6. In Model (1), the coefficient of CGE was 0.125 ( $t$-value is 2.210), which is significantly positive at the $5 \%$ level. This means that the salary gap between manager and nonmanagement employees was large in firms with better corporate governance. In Model (2), the coefficient of Tobin's Q was not significantly different from 0 , and in Model (3), the regression coefficient of ROE was -0.127 , which is significantly negative at the $5 \%$ level. This means that the large salary gap between managers and nonmanagement employees have negatively significant to affect profitability if firm, but Tobin's Q is insignificant. This implies that large salary decreases the firm value and profitability of firms.

The analysis results show that the firm with better corporate governance performance raises the salary gap between managers and nonmanagement employees, which implies that the managers have higher salaries to decrease the agency problem between shareholders and managers and to work hard; the
results do not support H3. In the relationship between salary gaps and financial performance, the firm with a higher salary gap reduces profitability but does not significantly influence the firm value. Thus, the results partially support H4.

Table 6
Corporate governance, salary gap and financial performance

| Variables | Salary gap | Tobin's Q | ROE |
| :--- | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) |
| Intercept | $-13.711^{* * *}(-11.931)$ | $1.201^{* * *}(12.124)$ | $-25.768^{* * *}(-8.737)$ |
| CGE | $0.125^{* *}(2.210)$ |  |  |
| Salary gap |  | $-0.000(-0.037)$ | $-0.127^{* *}(-2.172)$ |
| Control variables |  |  |  |
| Firm size | $1.076^{* * *}(13.857)$ | $-0.010(-1.608)$ | $1.382^{* * *}(7.342)$ |
| B/M ratio | $0.147^{* * *}(2.809)$ | $0.411^{* * *}(88.950)$ | $0.360^{* * *}(2.618)$ |
| ROA | $0.075^{* * *}(5.881)$ | $0.009^{* * *}(8.434)$ | $1.273^{* * *}(38.069)$ |
| Debt ratio | $-0.000(-0.064)$ | $-0.008^{* * *}(-16.564)$ | $-0.083^{* * *}(-5.768)$ |
| Year effect | Yes | Yes | Yes |
| Industry effect | Yes | Yes | Yes |
| Observed values | 2,040 | 2,040 | 2,040 |
| Adjusted R 2 | 0.247 | 0.859 | 0.565 |
| $F$-value | $20.626^{* * *}$ | $365.359 * * *$ | $78.883^{* * *}$ |

Notes: The dependent variables have salary gap, Tobin's Q, and ROE. The independent variables are CGE in Model (1), salary gap in Models (2) and (3). The control variables include Firm Size, B/M, ROA and Debt Ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ${ }^{* * *},{ }^{* *}$, * indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$-values.

## Robustness Analysis

## Corporate governance, employee salary and financial performance

We employed the Hausman test (Hausman, 1978) and the two-stage least squares (2SLS) method to examine the self-selection bias of corporate governance and employee salaries. We also use the generalised method of moments (GMM) to test the dynamic endogeneity effects of corporate governance, employee salary, and firm performance.

Table 7 presented the results of the Hausman test and 2SLS regarding corporate governance, employee salary, and firm value. Models (1) and (2) in Table 4 served as the first-stage regression analysis, and estimate the residual to Hausman test. In Models (1) and (2), the coefficients of residual of Models (1) and
(2) in Table 4 were -1.036 and -1.097 significantly different from 0 . We use the estimated value of employee salary from the first stage regression for second stage regression. In Models (3) and (4), the coefficient of the estimated value of mean and median employee salary were 1.621 and 1.595 significantly positive at the $1 \%$ level related to Tobin's Q. In Models (5) and (6), the coefficient of estimated value of mean and median employee salary were positively significant related to ROE. Considering the self-selection bias, the results still imply that the firm with higher employee salary increase the firm value and profitability.

Table 8 presented the results of GMM. In Models (1) and (2), the coefficients of CGE were significantly positive at the $1 \%$ level. In Models (3) to (6), the coefficients of mean and median of employee salary were significantly positive related to Tobin's Q and ROE, which verifies that firms with better corporate governance pay higher employee salaries and that higher employee salaries are associated with better firm value and profitability.

## Salary gap between managers and nonmanagement employees

For samples with cross-sectional characteristics, only using OLS may multiply or distort the significance of the analysis results. Thus, we according to Chen (2021) to control the different types of fixed effect in the robustness test the relationship among corporate governance, salary gap and financial performance in Table 9.

In Model (1), where only the year effect was fixed, and in Model (3), where neither the year effect nor the industry effect was fixed, the regression coefficients were not significantly positive. Models (4) through (9) test the robustness of results on the relationship between the salary gap between executives and nonmanagement employees and firm value and financial performance in three different scenarios with the year and industry effects fixed or not fixed. The dependent variable of Models (4) through (6) was Tobin's Q; none of the regression coefficients reached the level of significance, which is consistent with the results of Model (1) in Table 6. The dependent variable of Models (7) through (9) was ROE. In Model (7), where only the year effect was fixed, the regression coefficient was -0.194 , which is significantly negative at the $1 \%$ level. In Model (8), where only the industry effect was fixed, the regression coefficient was -0.127 , which is significantly negative at the $5 \%$ level. In Model (9), where neither the year effect nor the industry effect was fixed, the regression coefficient was -0.195 , which is significantly negative at the $1 \%$ level. These results are consistent with Models (1) and (3) in Table 6.

The robustness tests show that regardless of the control variables, firms with better corporate governance have larger salary gaps between executives and nonmanagement employees, and when the salary gap between executives
and nonmanagement employees is larger, the ROE performance is poorer. This confirms that wide salary gaps introduce agency problems, thereby negatively impacting shareholder equity.

Table 7
2SLSregression analysis of corporate governance, employee salaries, and firm performance

| Variables | Hausman test |  | Second stage of regression analysis |  | Second stage of regression analysis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tobin's Q |  | Tobin's Q |  | ROE |  |
|  | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) |
| Intercept | $\begin{gathered} -5.802 * * \\ (-2.311) \end{gathered}$ | $\begin{gathered} -5.752^{* *} \\ (-2.294) \end{gathered}$ | $\begin{gathered} -5.802 * * \\ (-2.266) \end{gathered}$ | $\begin{gathered} -5.752 * * \\ (-2.261) \end{gathered}$ | $\begin{aligned} & -73.519 \\ & (-1.194) \end{aligned}$ | $\begin{aligned} & -73.211 \\ & (-1.196) \end{aligned}$ |
| Mean employee salaries | $\begin{gathered} 1.621^{* * *} \\ (3.215) \end{gathered}$ |  |  |  |  |  |
| Median employee salaries |  | $\begin{gathered} 1.595 * * * \\ (3.199) \end{gathered}$ |  |  |  |  |
| Estimate value of mean employee salaries |  |  | $\begin{gathered} 1.621 * * * \\ (3.152) \end{gathered}$ |  | $\begin{gathered} 9.889 \\ (0.800) \end{gathered}$ |  |
| Estimate value of median employee salaries |  |  |  | $\begin{gathered} 1.595 * * * \\ (3.152) \end{gathered}$ |  | $\begin{gathered} 9.733 \\ (0.800) \end{gathered}$ |
| Residual value of Model (1) in Table 4 | $\begin{gathered} -1.036 * * \\ (-2.039) \end{gathered}$ |  |  |  |  |  |
| Residual value of Model (2) in Table 4 |  | $\begin{gathered} -1.097 * * \\ (-2.185) \end{gathered}$ |  |  |  |  |
| Control variables |  |  |  |  |  |  |
| Firm size | $\begin{gathered} -0.237 * * * \\ (-4.622) \end{gathered}$ | $\begin{gathered} -0.218^{* * *} \\ (-4.764) \end{gathered}$ | $\begin{gathered} -0.237 * * * \\ (-4.533) \end{gathered}$ | $\begin{gathered} -0.218^{* * *} \\ (-4.695) \end{gathered}$ | $\begin{gathered} 0.878 \\ (0.697) \end{gathered}$ | $\begin{gathered} 0.996 \\ (0.892) \end{gathered}$ |
| B/M ratio | $\begin{gathered} 0.145 * * * \\ (17.380) \end{gathered}$ | $\begin{gathered} 0.148 * * * \\ (19.170) \end{gathered}$ | $\begin{gathered} 0.145 * * * \\ (17.040) \end{gathered}$ | $\begin{gathered} 0.148 * * * \\ (18.900) \end{gathered}$ | $\begin{gathered} -1.236^{* * *} \\ (-6.046) \end{gathered}$ | $\begin{gathered} -1.219^{* * *} \\ (-6.485) \end{gathered}$ |
| ROA | $\begin{gathered} 0.018 * * * \\ (3.718) \end{gathered}$ | $\begin{gathered} 0.019 * * * \\ (4.474) \end{gathered}$ | $\begin{gathered} 0.018 * * * \\ (3.647) \end{gathered}$ | $\begin{gathered} 0.019 * * * \\ (4.409) \end{gathered}$ | $\begin{aligned} & 1.282 * * * \\ & (11.040) \end{aligned}$ | $\begin{aligned} & 1.292 * * * \\ & (12.300) \end{aligned}$ |
| Debt ratio | $\begin{gathered} -0.000 \\ (-0.326) \end{gathered}$ | $\begin{gathered} -0.000 \\ (-0.100) \end{gathered}$ | $\begin{gathered} -0.000 \\ (-0.319) \end{gathered}$ | $\begin{gathered} -0.000 \\ (-0.099) \end{gathered}$ | $\begin{gathered} -0.121 * * * \\ (-3.390) \end{gathered}$ | $\begin{gathered} -0.119 * * * \\ (-3.177) \end{gathered}$ |
| (Continued on next page) |  |  |  |  |  |  |

Table 7 (Continued)

| Variables | Hausman test |  | Second stage of <br> regression analysis |  | Second stage of <br> regression analysis |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tobin's Q |  | Tobin's Q |  | ROE |  |
|  | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) |
| Year effect | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry effect | Yes | Yes | Yes | Yes | Yes | Yes |
| Observed values | 2,304 | 2,304 | 2,304 | 2,304 | 2,304 | 2,304 |
| Adjusted R ${ }^{2}$ | 0.474 | 0.469 | 0.453 | 0.453 | 0.333 | 0.333 |
| F-value | $60.230^{* * *}$ | 59.014 | $57.046^{* * *}$ | $57.046^{* * *}$ | $34.881^{* * *}$ | $34.881^{* * *}$ |

Notes: The dependent variables are Tobin's Q and ROE. The main independent variables have the estimated value of mean and median employee salaries. The control variables include firm size, B/M, ROA and debt ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ${ }^{* * *}$, **, * indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$-values.

Table 8
GMM results

| Variables | Mean employee salary | Median employee salary | Tobin's Q |  | ROE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) |
| Intercept | $\begin{aligned} & 5.118 * * * \\ & (59.940) \end{aligned}$ | $\begin{aligned} & 5.169 * * * \\ & (61.150) \end{aligned}$ | $\begin{gathered} -0.735 \\ (-1.336) \end{gathered}$ | $\begin{gathered} -0.330 \\ (-0.966) \end{gathered}$ | $\begin{gathered} -55.638 * * * \\ (-4.474) \end{gathered}$ | $\begin{gathered} -53.251 * * * \\ (-3.613) \end{gathered}$ |
| CGE | $\begin{gathered} 0.021 * * * \\ (5.821) \end{gathered}$ | $\begin{gathered} 0.022 * * * \\ (5.793) \end{gathered}$ |  |  |  |  |
| Mean <br> employee <br> salaries |  |  | $\begin{gathered} 0.600 * * * \\ (3.271) \end{gathered}$ |  | $\begin{gathered} 6.287 * * * \\ (5.052) \end{gathered}$ |  |
| Median employee salaries |  |  |  | $\begin{gathered} 0.513 * * * \\ (3.209) \end{gathered}$ |  | $\begin{gathered} 5.751 * * * \\ (3.767) \end{gathered}$ |
| Control variables |  |  |  |  |  |  |
| Firm size | $\begin{aligned} & 0.084 * * * \\ & (14.440) \end{aligned}$ | $\begin{gathered} 0.074 * * * \\ (12.550) \end{gathered}$ | $\begin{gathered} -0.136^{* * *} \\ (-3.080) \end{gathered}$ | $\begin{gathered} -0.123 * * * \\ (-3.006) \end{gathered}$ | $\begin{gathered} 1.233 * * \\ (2.111) \end{gathered}$ | $\begin{aligned} & 1.347 * * \\ & (2.243) \end{aligned}$ |
| B/M ratio | $\begin{aligned} & 0.012^{*} \\ & (1.911) \end{aligned}$ | $\begin{gathered} 0.011^{* *} * \\ (1.891) \end{gathered}$ | $\begin{aligned} & 0.158^{*} \\ & (1.648) \end{aligned}$ | $\begin{aligned} & 0.160^{*} \\ & (1.659) \end{aligned}$ | $\begin{gathered} -1.189 \\ (-1.303) \end{gathered}$ | $\begin{gathered} -1.173 \\ (-1.298) \end{gathered}$ |
| ROA | $\begin{gathered} 0.008^{* *} * \\ (6.311) \end{gathered}$ | $\begin{gathered} 0.007 * * * \\ (5.638) \end{gathered}$ | $\begin{gathered} 0.026^{* *} \\ (2.508) \end{gathered}$ | $\begin{gathered} 0.027 * * \\ (2.558) \end{gathered}$ | $\begin{gathered} 1.312 * * * \\ (16.490) \end{gathered}$ | $\begin{gathered} 1.322 * * * \\ (17.400) \end{gathered}$ |
| Debt ratio | $\begin{gathered} -0.002 * * * \\ (-5.002) \\ \hline \end{gathered}$ | $\begin{gathered} -0.002 * * * \\ (-5.542) \end{gathered}$ | $\begin{gathered} -0.003 \\ (-1.076) \end{gathered}$ | $\begin{gathered} -0.003 \\ (-1.098) \\ \hline \end{gathered}$ | $\begin{gathered} -0.129 * * \\ (-2.185) \end{gathered}$ | $\begin{gathered} -0.129 * * \\ (-2.172) \end{gathered}$ |
| (Continued on next page) |  |  |  |  |  |  |

Table 8 (Continued)

|  | Mean <br> employee <br> salary | Median <br> employee <br> salary |  | Tobin's Q |  |  | ROE |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Notes: The independent variables have CGE in Model (1) and Model (2). In Model (3) to Model (6), the independent variables are mean and median of employee salaries. The control variables include firm size, $\mathrm{B} / \mathrm{M}, \mathrm{ROA}$ and debt ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ***, **, * indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $z$-values.

## Mediation analysis

We examined whether employee salaries mediate the relationship between corporate governance and firm value. The empirical results in Table 4 show that a significant positive relationship exists between corporate governance and employee salaries; those in Table 5 show that a significant positive relationship also exists between employee salaries and firm value. Thus, we examined whether employee salaries have mediating effects using the approach proposed by Baron and Kenny (1986).

Table 10 presented the results of mediation analysis. In Model (1), the coefficient of CGE was 0.035 significantly positive at the $1 \%$ level. In Models (2) and (3), the coefficients of mean and median of employee salaries were 0.022 and 0.024 significantly different from 0 at the $5 \%$ level, which were also less than the 0.035 of Model (1), and the $t$-values reached the level of significance at the $5 \%$ level, thereby indicating that employee salaries partially mediate the relationship between corporate governance and firm value.
Table 9
Robustness tests of year and industry effects and salary gap between executives and nonmanagement employees

| Variables | Salary gap |  |  | Tobin's Q |  |  | ROE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) | Model (6) | Model (7) | Model (8) | Model (9) |
| Intercept | $\begin{gathered} -10.815 * * * \\ (-9.799) \end{gathered}$ | $\begin{gathered} -13.634^{* * *} \\ (-12.017) \end{gathered}$ | $\begin{gathered} -10.724^{* * *} \\ (-9.859) \end{gathered}$ | $\begin{gathered} 0.926 * * * \\ (10.348) \end{gathered}$ | $\begin{aligned} & 1.046^{* * *} \\ & (10.777) \end{aligned}$ | $\begin{gathered} 0.951 * * * \\ (10.781) \end{gathered}$ | $\begin{gathered} -25.314 * * * \\ (-9.432) \end{gathered}$ | $\begin{gathered} -20.749^{* * *} \\ (-7.168) \end{gathered}$ | $\begin{gathered} -26.868 * * * \\ (-10.129) \end{gathered}$ |
| CGE | $\begin{gathered} 0.083 \\ (1.442) \end{gathered}$ | $\begin{gathered} 0.126^{* *} \\ (2.224) \end{gathered}$ | $\begin{gathered} 0.083 \\ (1.457) \end{gathered}$ |  |  |  |  |  |  |
| Salary gap |  |  |  | $\begin{aligned} & -0.001 \\ & (-0.572) \end{aligned}$ | $\begin{aligned} & -0.000 \\ & (-0.047) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (-0.578) \end{aligned}$ | $\begin{gathered} -0.194 * * * \\ (-3.358) \end{gathered}$ | $\begin{gathered} -0.127 * * \\ (-2.173) \end{gathered}$ | $\begin{gathered} -0.195^{* * *} \\ (-3.362) \end{gathered}$ |
| Control variables |  |  |  |  |  |  |  |  |  |
| Firm size | $\begin{gathered} 0.921 * * * \\ (11.944) \end{gathered}$ | $\begin{aligned} & 1.075^{* * *} \\ & (13.868) \end{aligned}$ | $\begin{gathered} 0.921^{* * *} \\ (11.950) \end{gathered}$ | $\begin{gathered} -0.003 \\ (-0.543) \end{gathered}$ | $\begin{aligned} & -0.011 \\ & (-1.664) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (-0.602) \end{aligned}$ | $\begin{gathered} 1.576 * * * \\ (8.810) \end{gathered}$ | $\begin{gathered} 1.401^{* * *} \\ (7.431) \end{gathered}$ | $\begin{gathered} 1.596^{* * *} \\ (8.900) \end{gathered}$ |
| B/M ratio | $\begin{gathered} 0.262 * * * \\ (4.943) \end{gathered}$ | $\begin{gathered} 0.148 * * * \\ (2.835) \end{gathered}$ | $\begin{gathered} 0.263 * * * \\ (4.968) \end{gathered}$ | $\begin{gathered} 0.412 * * * \\ (89.336) \end{gathered}$ | $\begin{aligned} & 0.410^{* * *} \\ & (89.042) \end{aligned}$ | $\begin{gathered} 0.412 * * * \\ (89.403) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.798) \end{gathered}$ | $\begin{gathered} 0.400^{* * *} \\ (2.916) \end{gathered}$ | $\begin{gathered} 0.150 \\ (1.085) \end{gathered}$ |
| ROA | $\begin{gathered} 0.076 * * * \\ (5.956) \end{gathered}$ | $\begin{gathered} 0.074 * * * \\ (5.848) \end{gathered}$ | $\begin{gathered} 0.075 * * * \\ (5.921) \end{gathered}$ | $\begin{gathered} 0.009 * * * \\ (8.309) \end{gathered}$ | $\begin{gathered} 0.009 * * * \\ (8.365) \end{gathered}$ | $\begin{gathered} 0.009^{* * *} \\ (8.248) \end{gathered}$ | $\begin{aligned} & 1.238^{* * *} \\ & (37.391) \end{aligned}$ | $\begin{gathered} 1.279 * * * \\ (38.240) \end{gathered}$ | $\begin{aligned} & 1.243^{* * *} \\ & (37.522) \end{aligned}$ |
| Debt ratio | $\begin{gathered} -0.015^{* * *} \\ (-2.772) \end{gathered}$ | $\begin{gathered} -0.000 \\ (-0.070) \end{gathered}$ | $\begin{gathered} -0.015^{* * *} \\ (-2.781) \end{gathered}$ | $\begin{gathered} -0.008^{* * *} \\ (-16.742) \end{gathered}$ | $\begin{gathered} -0.008^{* * *} \\ (-16.562) \end{gathered}$ | $\begin{gathered} -0.008^{* * *} \\ (-16.748) \end{gathered}$ | $\begin{gathered} -0.031^{* *} \\ (-2.275) \end{gathered}$ | $\begin{gathered} -0.082 * * * \\ (-5.736) \end{gathered}$ | $\begin{gathered} -0.030^{* *} \\ (-2.235) \end{gathered}$ |
| Year effect | Yes | No | No | Yes | No | No | Yes | No | No |
| Industry effect | No | Yes | No | No | Yes | No | No | Yes | No |
| Observed values | 2,040 | 2,040 | 2,040 | 2,040 | 2,040 | 2,040 | 2,040 | 2,040 | 2,040 |
| Adjusted R ${ }^{2}$ | 0.169 | 0.247 | 0.170 | 0.849 | 0.859 | 0.848 | 0.527 | 0.563 | 0.524 |
| F-value | 60.422*** | 21.880*** | 84.376*** | 1633.052*** | 387.628*** | 2282.903*** | 325.206*** | 82.968*** | 449.999*** |

Notes: The control variables include firm size, B/M, ROA, and debt ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ***, **, *indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$-values.

Thus, employee salaries are a crucial factor influencing corporate governance and firm value. If firms can establish more generous employee salaries and benefits under good corporate governance mechanisms, they can attract and attain better employees (Larkin et al., 2012) and thereby create higher firm value (Jiao, 2010). Table 4 shows that a significant positive relationship exists between corporate governance and employee salaries, and Table 5 indicates that a significant positive relationship also exists between employee salaries and ROE. However, the regression coefficient of corporate governance in Model (4) in Table 10 was not significantly positive and did not meet the mediation conditions established by Baron and Kenny (1986).

Table 10
Mediation analysis

| Variables | Tobin's Q |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Model (1) | Model (2) | Model (3) | Model (4) |
| Intercept | $2.912^{* * *}$ | -0.282 | 0.169 | $-28.826^{* * *}$ |
| CGE | $(13.483)$ | $(-0.518)$ | $(0.428)$ | $(-5.547)$ |
|  | $0.035^{* * *}$ | $0.022^{* *}$ | $0.024^{* *}$ | 0.212 |
| Mean employee salaries | $(3.152)$ | $(2.039)$ | $(2.185)$ | $(0.800)$ |
|  |  | $0.585^{* * *}$ |  |  |
| Media employee salaries |  | $(9.555)$ |  |  |
|  |  |  | $0.498^{* * *}$ | $(8.268)$ |
| Control variables |  |  |  |  |
| Firm size | $-0.100^{* * *}$ | $-0.150^{* * *}$ | $-0.137^{* * * *}$ | $1.713 * * *$ |
| B/M ratio | $(-6.803)$ | $(-9.757)$ | $(-9.023)$ | $(4.829)$ |
| ROA | $0.165^{* * *}$ | $0.158^{* * *}$ | $0.160^{* * *}$ | $-1.112^{* * *}$ |
|  | $(31.652)$ | $(30.520)$ | $(30.821)$ | $(-8.873)$ |
| debt ratio | $0.030^{* * *}$ | $0.026^{* * *}$ | $0.027^{* * *}$ | $1.358^{* * *}$ |
| Year effect | $(13.652)$ | $(11.413)$ | $(11.925)$ | $(25.292)$ |
| Industry effect | $-0.003^{* * *}$ | $-0.002^{* *}$ | $-0.002^{* *}$ | $-0.140^{* * *}$ |
| Observed values | $(-3.295)$ | $(-2.292)$ | $(-2.322)$ | $(-5.521)$ |
| Adjusted R 2 | Yes | Yes | Yes | Yes |
| $F$-value | Yes | Yes | Yes | Yes |

Notes: The control variables include firm size, $\mathrm{B} / \mathrm{M}, \mathrm{ROA}$, and debt ratio, with firm size measured by the natural logarithm of total assets (ln Assets). ${ }^{* * *}, * *, *$ indicate statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively, and the figures within the parentheses are the $t$-values.

## CONCLUSION

Employee salaries have long been a social issue. Firms have been called upon to prioritise the rights and interests of their employees, improve employee treatment, promote win-win situations for employees and employers, and fulfil their corporate social responsibility. On 21 July 2010, the Securities and Exchange Commission (SEC) of the United States passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act), which stipulated that all listed firms disclose the median salary of their employees and the salary gap between their CEO and nonmanagement employees. On 12 July 2018, TWSE announced that beginning in 2019 , listed firms would be required to provide the mean salary of full-time nonmanagement employees in the previous year. In 2020, they added the requirement to disclose the median employee salary of the previous year. Among the four major indicators of corporate governance held by TWSE, firms are evaluated based on their efforts to "adequately reflect business performance or results in employee remuneration, and disclose it on its website or in its annual report". This means that the government is attaching more importance to employee salaries and demanding that firms adequately adjust employee salaries based on their business achievements, which will help improve employee salaries and benefits and promote the corporate social responsibility.

In this study, we investigated the relationships among corporate governance, employee salaries, and firm performance. Our empirical results found that firms with better corporate governance had significantly higher employee salaries and that firms with higher employee salaries also had better firm value and financial performance. This means that sound corporate governance mechanisms can improve employee salaries and increase firm value and profitability. This result supports the reciprocal labour relations argument made by Akerlof (1982). Our empirical results found that firms with better corporate governance had significantly higher employee salaries and that firms with higher employee salaries also had better firm value and financial performance. This demonstrates the critical role of corporate governance in shaping compensation strategies and enhancing firm outcomes. Moreover, we discovered that employee salaries partially mediate the relationship between corporate governance and firm value, which suggests that effective corporate governance can lead to improved salary systems and higher salary levels. This, in turn, motivates employees to boost their work performance and productivity, thereby elevating firm value and profitability. Our findings underscore the importance of well-designed employee salary systems and the need for salary reasonableness in firm operations. Furthermore, our analysis of the salary gap between managers and nonmanagement employees revealed that firms with superior corporate governance had larger salary gaps between these groups.

Intriguingly, we found that larger salary gaps had a detrimental effect on financial performance. This finding contrasts with Chen (2021) but aligns with the results of Osiichuk (2022). This underscores the critical need to address compensation disparities in corporate governance practices to mitigate their adverse effects on firm dynamics.

Overall, corporate governance has a significant influence on employee salary, and raising employee salary levels can effectively increase productivity and improve the firm's operating efficiency and profitability. In addition, firms must seek to enhance firm operating efficiency and mitigate agency problems by addressing widening salary gaps. The empirical results underscore the importance of improving corporate governance mechanisms to promote fair compensation practices, enhance transparency in salary disclosures, and adjust compensation based on performance. These measures not only contribute to reducing the salary gap between management and non-management employees but also support the development of a more equitable and transparent compensation system. This, in turn, can motivate employees to improve their work performance and productivity, thereby enhancing firm value and profitability. Therefore, it is crucial for boards of directors or salary committees to consider these findings when developing performance indices for managers and employee compensation plans, aiming for smooth, sustainable operations. These recommendations are intended to guide firms in promoting fairer compensation practices, thereby fulfilling their corporate social responsibility, and ensuring long-term sustainability.

This study primarily focuses on the analysis of employee salary data from publicly listed companies in Taiwan, excluding data from all publicly issued companies (not including over-the-counter [OTC] companies). Due to limitations in the available databases, this study was unable to incorporate data related to employee benefits. Future research could expand the dataset to include a broader range of companies and consider additional factors such as employee benefits, which could provide a more comprehensive understanding of the impact of corporate governance on employee compensation and firm performance.

## REFERENCES

Akerlof, G. A. (1982). Labor contracts as partial gift exchange. The Quarterly Journal of Economics, 97(4), 543-569. https://doi.org/10.2307/1885099
Ali, S., Liu, B., \& Su, J. J. (2022). Does corporate governance have a differential effect on downside and upside risk? Journal of Business Finance and Accounting, 49(910), 1642-1695. https://doi.org/10.1111/jbfa. 12606

Armstrong, C. S., Ittner, C. D., \& Larcker, D. F. (2012). Corporate governance, compensation consultants, and CEO pay levels. Review of Accounting Studies, 17, 322-351. https://doi.org/10.1007/s11142-012-9182-y
Asian Corporate Governance Association. (2023, 13 December). CG watch 2023 release. Retrieved from https://acga-asia.org/news-detail. php?id=347
Baker, G. P., Jensen, M. C., \& Murphy, K. J. (1988). Compensation and incentives: Practice vs. theory. The Journal of Finance, 43(3), 593-616. https://doi. org/10.1111/j.1540-6261.1988.tb04593.x
Banker, R. D., Bu, D., \& Mehta, M. N. (2016). Pay gap and performance in China. Abacus, 52(3), 501-531. https://doi.org/10.1111/abac. 12082
Baron, R. M., \& Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182. https://doi. org/10.1037/0022-3514.51.6.1173
Basu, S., Hwang, L. S., Mitsudome, T., \& Weintrop, J. (2007). Corporate governance, top executive compensation and firm performance in Japan. Pacific-Basin Finance Journal, 15(1), 56-79. https://doi.org/10.1016/j.pacfin.2006.05.002
Batson, C. D., Kobrynowicz, D., Dinnerstein, J. L., Kampf, H. C., \& Wilson, A. D. (1997). In a very different voice: unmasking moral hypocrisy. Journal of Personality and Social Psychology, 72(6), 1335. https://doi.org/10.1037/0022-3514.72.6.1335
Bebchuk, L. A., \& Fried, J. M. (2003). Executive compensation as an agency problem. Journal of Economic Perspectives, 17(3), 71-92. https://doi. org/10.1257/089533003769204362
Boudreaux, C. J. (2021). Employee compensation and new venture performance: does benefit type matter? Small Business Economics, 57, 1453-1477. https://doi. org/10.1007/s11187-020-00357-5
Chang, X., Fu, K., Low, A., \& Zhang, W. (2015). Non-executive employee stock options and corporate innovation. Journal of Financial Economics, 115(1), 168-188. https://doi.org/10.1016/j.jfineco.2014.09.002
Chen, A., Kao, L., Tsao, M., \& Wu, C. (2007). Building a corporate governance index from the perspectives of ownership and leadership for firms in Taiwan. Corporate Governance: An International Review, 15(2), 251-261. https://doi.org/10.1111/ j.1467-8683.2007.00572.x

Chen, C. W. (2021). Corporate governance and the salary gap between managers and employees: Evidence from Taiwan. Review of Securities and Futures Markets, 33(4), 1-29. https://doi.org/10.6529/RSFM.202112_33(4). 0001
Chen, C. Y., Wang, J. C., \& Hung, S. W. (2017). The impact of corporate governance on the corporate social responsibility and firm values. Sun Yat-Sen Management Review, 25(1), 135-176. https://doi.org/10.6529/RSFM.202112_33(4). 0001
Chen, C., Chen, Y., Hsu, P. H., \& Podolski, E. J. (2016). Be nice to your innovators: Employee treatment and corporate innovation performance. Journal of Corporate Finance, 39, 78-98. https://doi.org/10.1016/j.jcorpfin.2016.06.001
Core, J. E., \& Guay, W. R. (2001). Stock option plans for non-executive employees. Journal of Financial Economics, 61(2), 253-287. https://doi.org/10.1016/S0304-405X(01)00062-9

Core, J. E., Holthausen, R. W., \& Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. Journal of Financial Economics, 51(3), 371-406. https://doi.org/10.1016/S0304-405X(98)00058-0
Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. Journal of Financial Economics, 101(3), 621-640. https://doi. org/10.1016/j.jfineco.2011.03.021
Ertugrul, M. (2013). Employee-friendly acquirers and acquisition performance. Journal of Financial Research, 36(3), 347-370. https://doi.org/10.1111/j.14756803.2013.12014.x

Faleye, O., \& Trahan, E. A. (2011). Labor-friendly corporate practices: Is what is good for employees good for shareholders? Journal of Business Ethics, 101, 1-27. https:// doi.org/10.1007/s10551-010-0705-9
Fauver, L., McDonald, M. B., \& Taboada, A. G. (2018). Does it pay to treat employees well? International evidence on the value of employee-friendly culture. Journal of Corporate Finance, 50, 84-108. https://doi.org/10.1016/j.jcorpfin.2018.02.003
Financial Supervisory Commission, R.O.C. (Taiwan). (2020, 3 September). Corporate Governance 3.0 - Sustainable Development Roadmap. Retrieved from https:// www.sfb.gov.tw/en/home. jsp?id=27\&parentpath=0,117,118,120
Freeman, R. E. (2010). Strategic management: A stakeholder approach. Cambridge University Press. https://doi.org/10.1017/CBO9781139192675
Gan, H., Park, M. S., \& Suh, S. (2020). Non-financial performance measures, CEO compensation, and firms' future value. Journal of Business Research, 110, 213227. https://doi.org/10.1016/j.jbusres.2020.01.002

Gibbons, R., \& Murphy, K. J. (1992). Optimal incentive contracts in the presence of career concerns: Theory and evidence. Journal of Political Economy, 100(3), 468-505. https://doi.org/10.1086/261826
Giroud, X., \& Mueller, H. M. (2010). Does corporate governance matter in competitive industries? Journal of Financial Economics, 95(3), 312-331. https://doi. org/10.1016/j.jfineco.2009.10.008
Gomez-Mejia, L., \& Wiseman, R. M. (1997). Reframing executive compensation: An assessment and outlook. Journal of Management, 23(3), 291-374. https://doi. org/10.1177/014920639702300304
Gompers, P., Ishii, J., \& Metrick, A. (2003). Corporate governance and equity prices. The Quarterly Journal of Economics, 118(1), 107-156. https://doi. org/10.1162/00335530360535162
Hausman, J. A. (1978). Specification tests in econometrics. Econometrics, 46(6), 12511271. https://doi.org/10.2307/1913827

Jensen, M. C., \& Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X
Jiao, Y. (2010). Stakeholder welfare and firm value. Journal of Banking and Finance, 34(10), 2549-2561. https://doi.org/10.1016/j.jbankfin.2010.04.013
Ko, C. Y., Pan, H., Kuo, L. C., \& Ko, Y. C. (2020). The association between non-executive compensation and firm performance. Asia-Pacific Journal of Accounting and Economics, 29(2), 386-401. https://doi.org/10.1080/16081625.2020.1726777

La Monica, P. R. (2014). Berkshire's Munger wants $1 \%$ to take pay cut. CNN BUSINESS. Retrieved 5 June 2023, from https://money.cnn.com/2014/05/04/investing/ charlie-munger-berkshire/
Larkin, I., Pierce, L., \& Gino, F. (2012). The psychological costs of pay-for-performance: Implications for the strategic compensation of employees. Strategic Management Journal, 33(10), 1194-1214. https://doi.org/10.1002/smj. 1974
Lazear, E. P. (2000). Performance pay and productivity. American Economic Review, 90(5), 1346-1361. https://doi.org/10.1257/aer.90.5.1346
Li, H. Y., \& Chen, M. C. (2021). The effects of employee turnover and nonmanagement employee salaries on corporate tax avoidance. Journal of Management, 38(2), 175-202. https://doi.org/10.6504/JMBR.202106_38(2).0002
Liang, J. W., Wu, S. J., \& Lin, H. Y. (2022). The relation between non-executive fulltime employee compensation and the disclosure of employee salary adjustment. Review of Accounting and Auditing Studies, 12(2), 87-138.
Lin, Y. F., Huang, L. J., \& Chen, S. Y. (2012). Executive compensation, corporate governance, and cash dividend policy. Sun Yat-Sen Management Review, 20(4), 1213-1251. https://doi.org/10.6160/2012.12.06
Mao, C. X., \& Weathers, J. (2019). Employee treatment and firm innovation. Journal of Business Finance and Accounting, 46(7-8), 977-1002. https://doi.org/10.1111/ jbfa. 12393
Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. Journal of Financial Economics, 38(2), 163-184. https://doi.org/10.1016/0304-405X(94)00809-F
Murphy, K. J. (1999). Executive compensation. Handbook of Labor Economics, 3, 24852563. https://doi.org/10.1016/S1573-4463(99)30024-9

Osiichuk, D. (2022). The driver of workplace alienation or the cost of effective stewardship? the consequences of wage gap for corporate performance. Sustainability, 14(13), 8006-8034. https://doi.org/10.3390/su14138006
Palladino, L. (2022). The potential benefits of employee equity funds in the United States. Journal of Participation and Employee Ownership, 5(1), 56-78. https://doi. org/10.1108/JPEO-08-2020-0023
Pan, X., Wan, X., Wang, H., \& Li, Y. (2020). The correlation analysis between salary gap and enterprise innovation efficiency based on the entrepreneur psychology. Frontiers in Psychology, 11, 1749. https://doi.org/10.3389/fpsyg.2020.01749
Pan, Y., Pikulina, E. S., Siegel, S., \& Wang, T. Y. (2022). Do equity markets care about income inequality? Evidence from pay ratio disclosure. The Journal of Finance, 77(2), 1371-1411. https://doi.org/10.1111/jofi. 13113
Patiar, A., \& Wang, Y. (2020). Managers' leadership, compensation and benefits, and departments' performance: Evidence from upscale hotels in Australia. Journal of Hospitality and Tourism Management, 42, 29-39. https://doi.org/10.1016/j. jhtm.2019.11.005
Przychodzen, W., \& Gómez-Bezares, F. (2021). CEO-employee pay gap, productivity and value creation. Journal of Risk and Financial Management, 14(5), 196. https://doi.org/10.3390/jrfm14050196

Ridge, J. W., Aime, F., \& White, M. A. (2015). When much more of a difference makes a difference: Social comparison and tournaments in the CEO's top team. Strategic Management Journal, 36(4), 618-636. https://doi.org/10.1002/smj. 2227
Siegel, P. A., \& Hambrick, D. C. (2005). Pay disparities within top management groups: Evidence of harmful effects on performance of high-technology firms. Organization Science, 16(3), 259-274. https://doi.org/10.1287/orsc.1050.0128
Song, J., Price, D. J., Guvenen, F., Bloom, N., \& Von Wachter, T. (2019). Firming up inequality. The Quarterly Journal of Economics, 134(1), 1-50. https://doi. org/10.1093/qje/qjy025
Suhadak, S., Mangesti Rahayu, S., \& Handayani, S. R. (2019). GCG, financial architecture on stock return, financial performance and corporate value. International Journal of Productivity and Performance Management, 69(9), 1813-1831. https://doi. org/10.1108/IJPPM-09-2017-0224
Wang, T. S., Huang, S. Y., \& Lee, Y. Y. (2022). The impact of compensation committee quality and CEO power on director and supervisor compensation in loss-making firms. International Journal of Accounting Studies, 75, 137-180. https://doi. org/10.6552/JOAR.202207_(75). 0004
Wang, Y. J., Chen, C. Y., \& Chang, C. C. (2012). Corporate governance and market liquidity. Review of Securities and Futures Markets, 24(2), 125-178. https://doi. org/10.6529/RSFM.2012.24(2).4
Zhang, J., Wang, J., \& Kong, D. (2020). Employee treatment and corporate fraud. Economic Modelling, 85, 325-334. https://doi.org/10.1016/j.econmod.2019.10.028
Zhao, Q., \& Wang, Y. (2019). Pay gap, inventor promotion and corporate technology innovation. China Finance Review International, 9(2), 154-182. https://doi. org/10.1108/CFRI-06-2017-0073

## APPENDIX

Definitions and measurement methods of research variables

| Main variables | Definition and measurement method |
| :--- | :--- |
| $C G E=$ corporate | Data retrieved from the TWSE corporate government evaluation |
| governance evaluation | database in Taiwan Economic Journal (TEJ) Corporate |
| results | Governance and converted into a quantitative index: |
|  | (7) firms ranked in the top $5 \%$ of the evaluation results |
| (6) top $6 \%$ to $20 \%$ |  |
| (5) top $21 \%$ to $35 \%$ |  |
| (4) top $36 \%$ to $50 \%$ |  |
| (3) top $51 \%$ to $65 \%$ |  |
| (2) top $66 \%$ to $80 \%$ |  |
| (1) top $81 \%$ to $100 \%$ |  |
| (0) firms that could not be evaluated or provided insufficient data |  |
| for evaluation |  |
| These evaluation results were transformed into a dummy |  |
| variable, ranging from 7 to 0 in descending order of quality, for |  |
| subsequent analysis |  |


| Main variables | Definition and measurement method |
| :---: | :---: |
| Employee Salaries $=$ salaries of full-time nonmanagement employees | Data retrieved from the mean and median salary data of full-time nonmanagement employees disclosed by the Market Observation Post System, measured by taking the natural logarithm of the data |
| Salary Gap = salary gap between executives and nonmanagement employees | Data retrieved from the executive-employee salary ratio database in the executive and nonmanagement employee salary section of TEJ Corporate Governance; calculated by dividing the salary per executive by the salary per nonmanagement employee |
| Tobin's $Q$ | Tobin's Q served as the proxy variable for firm value; data retrieved from the TEJ stock price database and IFRS Finance database; Tobin's Q (market value of firm + total liabilities at the end of the year) $\div$ total assets at the end of the year <br> Return on equity (ROE) served as the proxy variable for financial performance; data retrieved from the TEJ IFRS Finance database; ROE net profit after tax $\div$ shareholder equity at the end of the year |
| Control variables |  |
| Control 1 Firm size | The natural logarithm of total assets (ln Assets) was the proxy variable for firm size; data retrieved from TEJ IFRS Finance database |
| Control $2 \mathrm{~B} / \mathrm{M}$ ratio | Data retrieved from the TEJ stock price database; $\mathrm{B} / \mathrm{M}$ ratio $=$ net value per share at the end of the year $\div$ price per share at the end of the year |
| Control 3 ROA | Data retrieved from the TEJ IFRS Finance database; ROA = net profit before tax $\div$ total assets at the end of the year |
| Control 4 Debt ratio | Data retrieved from the solvency index section of the TEJ IFRS Finance database; debt ratio $=$ total liabilities at the end of the year $\div$ total assets at the end of the year |


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