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Does the income of the chief executive officer affect the quality of corporate financial statements? An evidence from industrial firms in Vietnam

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Abstract
Research aims: This study examines the relationship between the CEOs’ income and the quality of financial statements of industrial firms listed on the Ho Chi Minh Stock Exchange (HSX) during the three years from 2018 to 2020.

Design/Methodology/Approach: This study investigated the influence of CEOs’ characteristics, particularly their income, on the quality of financial statements of listed firms in the Vietnamese industry by using features of information quality proposed by the International Accounting Standards Board (IASB). Ordinary Least Squares (OLS), Random Effects model (REM), Fixed Effects model (FEM), and Feasible Generalized Least Squares (FGLS) regressions were applied for empirical examinations.

Research findings: The results of this study demonstrated that a CEO’s income positively affected the quality of corporate financial statements. Additionally, the analysis results confirmed the positive correlation between the firm’s size and the quality of disclosed reports, consistent with prior studies. However, this study uncovered that Big4 auditors did not influence the quality of financial statements.

Theoretical contribution/Originality: This study contributes to the literature by providing a comprehensive perspective on the assessment of corporate financial statements quality and examining its association with the CEO’s income in the context of an emerging economy.

Practitioner/Policy implication: The study is useful for investors and other financial statement users to assess the quality of corporate financial statements through the CEO’s profile; it also contributes as a scientific basis for firms to adjust the compensations offered to their CEOs.

Research limitation: This study was limited by looking at the mono-directional impact of the CEO’s income on the financial statement quality. The following studies need a larger sample of industries and countries to strengthen the research findings. Also, further studies can broaden their perspectives to investigate the multidimensionality of this relation.

Keywords: CEO; Income; Quality; Financial Statement; Vietnam; Compensation

Introduction

Along with the advance of the capital markets, the quality of corporate financial statements, especially that of publicly listed firms, becomes one of the top concerns of firms’ stakeholders, either internal or external
Does the income of the chief executive officer affect parties, due to its weight in the decision-making process (Hsu & Yang, 2022). On the one hand, it is widely believed that the credibility of the financial statements content is greatly influenced by the firm’s governance, especially the CEO, who is the legal representative and takes charge of all business activities (Altarawneh et al., 2022).

In fact, however, CEOs do not always play in the interest of the firm’s owners but also in their favor (Gan et al., 2020). They can abuse their operational power to manipulate the earnings management process by falsifying the business data, affecting the transparency and truthfulness of the disclosed financial statements (Altarawneh et al., 2022). Besides, many studies indicate that CEOs’ behaviors are dominated by their characteristics, e.g., age, genders, work experience/expertise, tenure, and compensations, such as bonus contracts, stock options, and other long-term benefits (Altarawneh et al., 2022; Bao et al., 2021; Brockman et al., 2017; Huang et al., 2012). Scholars also claim that these figures have a significant impact on firms’ performance and can be used to predict the transparency and accuracy of firms’ financial reporting (Nguyen et al., 2021b; Khuong et al., 2019; Thu et al., 2018), though they could not reach a consensus on how CEO’s characteristics contribute to the quality of financial reporting (Habib & Hossain, 2013; Mustapha et al., 2021).

On the other hand, it is common to use measures based on accounting profitability to gauge the CEOs’ performance, incentivizing them to take an interest in reported accounting numbers (Habib & Hossain, 2013). Consequently, many indicators related to earnings quality are used to reflect the quality of firms’ financial statements (Dechow et al., 2010), e.g., accruals quality, earnings management behaviors or forecasts, or the restatements of financial statements (Altarawneh et al., 2022; Bao et al., 2021; Brockman et al., 2017; Jiang et al., 2013; Huang et al., 2012). Nevertheless, the primary drawback of these measures is that they cannot comprehensively assess the actual quality of firms’ financial statements, in other words, their multidimensional nature.

Hence, this study examines the influence of CEOs’ characteristics, particularly their income, on the quality of financial statements of listed firms in the Vietnamese industry by using features of information quality proposed by the International Accounting Standards Board (IASB). Indeed, linking executive income to the company’s performance is a common practice to align goals. Nonetheless, this practice may encourage executives to manipulate the firm’s performance. This link between executive income and accounting irregularities has been observed to be linear. Nevertheless, it is essential to note that there is mixed evidence on the relationship between executive compensation and financial irregularities (low quality), as shown in various studies (e.g., Bergstresser & Philippon, 2006; Soepriyanto et al., 2022; Erickson et al., 2006; Harris & Bromiley, 2007). Most of this evidence has been documented in developed countries like the United Kingdom, the United States, and Australia. However, there is a paucity of evidence in emerging countries, such as Vietnam or Indonesia, due to the lack of disclosure requirements on executive income (Wahyuni et al., 2020).

Consequently, this study aims to fill the gap and investigate whether executive compensation leads to accounting irregularities in Vietnam, a developing country. By
The International Organization for Standardization (ISO) – ISO 9000:2005 defines “quality as the degree to which a set of inherent characteristics fulfills requirements.” Also, the purpose of the financial statements is to deliver high-quality financial information related to a firm’s business activities that are useful for the making-decision process of existing and potential investors and creditors (Weygandt & Kimmel, 2022). Given the importance of providing high-quality financial reports, the key issue is measuring this quality realistically (Shahwan, 2008; Azwardi, 2021). The fact is that there exists a strong bias to use accounting measures of corporate performance as the standards to gauge the CEOs’ efficiency, motivating them to pay more attention to reported accounting information (Habib & Hossain, 2013). Moreover, several studies have applied the conceptual framework of FASB and IASB since the 1980s to gauge the quality of either financial reporting or financial statements (Mita et al., 2020; Ahmad et al., 2022). For example, Jonas and Blanchet (2000) determined the quality of financial reporting through the use of disclosed financial information and the provision of shareholder/investor protection, which is considered the first paper to employ this approach. McDaniel et al. (2002), Choi and Suh (2019), and Kabwe (2023) exploited the accounting comparability of financial reports, which is estimated by output-based measures, as the proxy for financial reporting quality. However, these studies focused on some aspects and did not consider the multidimensionality of financial reporting quality. Further, according to the “Conceptual Framework for Financial Reporting” issued by IASB in 2018, the extent to which disclosed financial information is qualified and useful for making decisions in practice depends on its qualitative characteristic.

Several theories refer to the impacts of a firm’s governance characteristics on corporate performance; one widely used is the agency theory. This theory addresses the potential conflicts between the principals, commonly shareholders and debt holders, and the agents, such as its senior executives, especially when they are separated individuals and
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Hossain’s (2013) review found that a firm’s financial reporting quality was positively improved by CEO/CFO’s turnover and female CEOs but negatively by CEO’s overconfidence that exaggerates optimistic management forecasts and causes earnings management and fraudulent behaviors. In addition, Khuong and Vy (2017) examined two determinants of timely audit reports or financial statements of listed firms in Vietnam. They uncovered that the timeliness of financial reporting had a significant positive relation with the gender diversity of the board but had a negative relation with the CEO’s age. Moreover, Shekarkhah et al. (2019)’s investigation of listed firms in Iran found no significant effect of the CEO’s overconfidence on the financial restatement. Bouaziz et al. (2020) also indicated that CEO’s duality and nationality exhibited a significantly positive effect on the quality of financial communication, but the impact of the CEO’s duality and turnover on earnings management was insignificant. Furthermore, Altarawneh et al. (2022) examined listed firms in Malaysia and revealed that different aspects of the CEO’s characteristics had different influences on financial reporting quality reflected by earnings management behavior; specifically, CEO with higher tenure, a broader network, and female CEOs were less likely to perform earnings management, while CEO’s expertise and age had no significant effect on discretionary accruals.

To the authors’ best knowledge, few studies have investigated the specific impact of a CEO’s income on different aspects of the financial statements quality of listed industrial firms in Vietnam so far, excluding some studies on CEO characteristics and corporate performance (Khuong & Vy, 2017; Hang, 2022). It is also noted that the CEO is often titled Director or General Director in Vietnam. According to the Enterprise Law promulgated by the National Assembly in 2020, the CEO is legally responsible for all business activities of the firm and all issues related to providing corporate financial statements. Thus, it is believed that the CEOs’ characteristics, especially their compensations, significantly influence the quality of corporate financial statements in Vietnam. In the extent of this study, the authors focus on investigating the relationship between the CEO’s income and the quality of financial statements. As suggested by previous literature, the study posited the following hypothesis:

**H₁:** The CEO’s income positively affects the quality of corporate financial statements.

**Research Method**

This study focused on the influence of CEO characteristics on the quality of listed firms’ financial statements in the industrial sector. The sample was constructed with firm-year observations, in which the data on the CEO’s personalities, including income, gender and duality, and other firm-specific variables, including firm size, leverage, and Big4 auditors, were extracted from the annual financial statements of industrial firms listed on the Ho Chi Minh Stock Exchange (HSX) during the three years, from 2018 to 2020. Besides, this study exploited the IASB’s perspective on the usefulness of financial information and the measurement suggested by McDaniel et al. (2002), Choi and Suh (2019), and Kabwe (2023) to identify and assess the quality of financial statements. The detailed process of
collecting the qualitative characteristics of financial information is described in the next section.

The linear regression model for panel data is structured as follows:

\[
\text{QUALITY}_{it} = \beta_0 + \beta_1 \text{INCOME}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{BIG4}_{it} + \varepsilon_{it} \quad (1)
\]

for \(i = 1, 2, ..., n\) and \(t = 1, 2, 3\).

In this study, the quality of financial statements (QUALITY) was based on the qualitative characteristics of financial reporting proposed by IASB. As mentioned in the previous section, the quality of reported financial information has two primary characteristics – relevance and truthful presentation, and some complementary characteristics. The study then employed the measurement designed by McDaniel et al. (2002), Choi and Suh (2019), and Kabwe (2023) to quantify this qualitative information. Particularly, the quality of financial information was estimated by 21 items under five qualitative characteristics: relevance, faithful representation, comparability, understandability, and timeliness. According to these authors, verifiability should not be considered because it requires observers to have different and independent understandings about the neutral manner of disclosed information; if the evaluator is not an independent auditor or a competent person, it is difficult to measure this characteristic. Moreover, the authors made the difference to adapt the specific conditions of Vietnam. Specifically, some items were not collected or tended to have no impact in Vietnam, e.g., notes on the balance sheet and income statement, the number of the glossary pages, adjusted data of previous accounting periods, so the authors excluded these criteria. Eventually, there remained 17 items to measure the quality of financial statements: four items related to the appropriateness (R1–R4), five items related to the faithful presentation (F1–F6), three items related to the understandability (U1–U3), four items related to comparability (C1–C4), and one item related to timeliness (T). All of them were assessed by a five-point rating scale, with 1 for the lowest level and 5 for the highest level of each item. The detailed descriptions are shown in Error! Reference source not found.

The CEO’s income (INCOME), known as CEO’s compensations, was identified by the natural logarithm of CEOs’ total income each year, as Armstrong et al. (2010b) suggested. On the one hand, many studies suggest that improving CEOs’ compensations can mitigate agency issues, reducing their personal incentives to manipulate earnings or restate reported information (Armstrong et al., 2010b; Habib & Hossain, 2013). On the other hand, some scholars argue that higher income ratios offered to powerful CEOs may accidentally support their actions of lowering the quality of financial reporting for their bigger personal benefits (Bao et al., 2021).

Firm size (SIZE) was measured by the natural logarithm of total assets at the yearend, as suggested by Minh et al. (2022), Nguyen and Wong (2021), Nguyen et al. (2020b), Ha and Tran-Dang (2020), and Nguyen (2018). In this regard, larger firms are more apparent to society than smaller firms; thus, they tend to spend fixed costs to maintain internal auditing procedures for provisioning financial statements to improve the quality of their reports and disclose more non-financial information to gain legitimacy and social
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encouragement. The authors, therefore, expect a positive influence of the firm size on the quality of financial reporting.

The dummy variable BIG4 is set equal to 1 if any Big-4 audit firms audit the firm’s financial statements in the fiscal year \( t \), or 0 otherwise, as suggested by Ha and Tran-Dang (2020), Huang et al. (2012), and Jiang et al. (2013). According to these studies, firms that meet the requirements of Big-4 auditors and analyst forecasts are less likely to perform earnings manipulation. Thus, the authors expect a positive coefficient on BIG4.

\( \varepsilon_{it} \) is the error term that contains both idiosyncratic error term \( u_{it} \) and unobserved firm-specific characteristics \( \sigma_{it} \), such that \( \varepsilon_{it} = u_{it} + \sigma_{it} \). Depending on the assumption of the unobserved firm-specific characteristics term, \( \sigma_{it} \), the authors can run two different linear regressions with the panel data: a Random Effects model (REM) with the assumption that \( \sigma_{it} \) varies across time, or a Fixed Effects model (FEM) if \( \sigma_{it} \) does not change over time. The independent variables should be unrelated to the error term to avoid correlation problems (Nguyen et al., 2019). The authors also run the pooled Ordinary Least Squares (OLS) regression to consider the specific time effect because this method does not distinguish a firm’s characteristics and time trends. If the assumptions of homoscedasticity and the exogeneity are violated, this study uses the Feasible Generalized Least Squares (FGLS) regression to correct the model errors.

Result and Discussion

Descriptive Statistics

The statistical descriptions of the research sample of 89 industrial firms listed on HSX are shown in Table 1. The results demonstrated a remarkable discrepancy in the sample’s firm-specific properties among industrial firms. Particularly, while the highest income paid to the CEO was over VND 1.01 billion per year (the natural logarithm value was 4.382), the lowest income paid was only about VND 0.08 billion per year (the natural logarithm value was 9.460). Also, the biggest firm had a SIZE value of 11.329, while the value of the smallest firm was only 5.303. However, the quality of the financial statements of listed firms in the sample was relatively similar. The variable QUALITY had a mean value of 58.38, with a standard deviation of only 6.27, meaning most sample firms gained above-average scores.

Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUALITY</td>
<td>30</td>
<td>58.38</td>
<td>6.27</td>
<td>72</td>
<td>43</td>
</tr>
<tr>
<td>INCOME</td>
<td>30</td>
<td>6.918</td>
<td>7.155</td>
<td>9.460</td>
<td>4.382</td>
</tr>
<tr>
<td>SIZE</td>
<td>30</td>
<td>8.496</td>
<td>9.213</td>
<td>11.329</td>
<td>5.303</td>
</tr>
<tr>
<td>BIG4</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

In Table 2, the correlation test revealed that all pairwise coefficients were less than 0.5, affirming no correlation between variables. Besides, it is noted that the VIF value is an important indicator to identify the possibility of multicollinearity in the model; if this value
is greater than 10, multicollinearity is more likely to exist (Gujarati et al., 2017). The results showed that all VIF coefficients were small and less than 2, implying no serious multicollinearity.

**Table 2** Correlation matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>QUALITY</th>
<th>INCOME</th>
<th>SIZE</th>
<th>BIG4</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUALITY</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCOME</td>
<td>0.32</td>
<td>1</td>
<td></td>
<td></td>
<td>1.14</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.46</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td>1.24</td>
</tr>
<tr>
<td>BIG4</td>
<td>0.19</td>
<td>0.28</td>
<td>0.4</td>
<td>1</td>
<td>1.23</td>
</tr>
</tbody>
</table>

**Empirical findings**

The regression results by FGLS estimation demonstrated the inconsistent impact of each factor on the firm’s financial statements quality (Table 3). The coefficient of INCOME was positive and statistically significant at a 10% significance level. It denotes that the CEOs’ income enhances the quality of the report only at the 10% significance level, not in any case. On the one hand, this result is coherent with plenty of previous studies, such as Armstrong et al. (2010b), Habib and Hossain (2013), and Nguyen et al. (2021a), which confirm the positive relationship between CEOs’ characteristics and the quality of the financial report. On the other hand, the result posed by FGLS estimation is not robust with other models. Particularly, while using OLS estimation, the coefficient of INCOME was also positive and statistically significant at any significance level; this variable’s coefficients in FEM and REM were totally insignificant. Thus, the study supports that the positive influence of CEO’s compensation properties is unstable, based on other external factors, e.g., the firm’s growth opportunities (Nguyen et al., 2020a), types of compensation (Benmelech et al., 2010; Chen et al., 2021; Gan et al., 2020), and auditors’ efforts (Chen et al., 2021). Thus, the posited hypothesis was accepted.

**Table 3** The regression results

<table>
<thead>
<tr>
<th>Variables</th>
<th>OLS</th>
<th>FEM</th>
<th>REM</th>
<th>FGLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCOME</td>
<td>3.368***</td>
<td>-0.623</td>
<td>0.581</td>
<td>0.813*</td>
</tr>
<tr>
<td></td>
<td>(3.52)</td>
<td>(-0.68)</td>
<td>(0.70)</td>
<td>(1.86)</td>
</tr>
<tr>
<td>SIZE</td>
<td>4.583***</td>
<td>5.363***</td>
<td>5.122***</td>
<td>5.186***</td>
</tr>
<tr>
<td></td>
<td>(6.89)</td>
<td>(2.91)</td>
<td>(5.60)</td>
<td>(13.29)</td>
</tr>
<tr>
<td>BIG4</td>
<td>-0.345</td>
<td>-2.141</td>
<td>-0.803</td>
<td>-0.217</td>
</tr>
<tr>
<td></td>
<td>(-0.42)</td>
<td>(-1.40)</td>
<td>(-0.79)</td>
<td>(-0.62)</td>
</tr>
<tr>
<td>Constant</td>
<td>-27.506***</td>
<td>-1.328</td>
<td>-7.373</td>
<td>-13.021**</td>
</tr>
<tr>
<td>Model fit</td>
<td>28.87***</td>
<td>2.96***</td>
<td>36.17***</td>
<td>211.55***</td>
</tr>
<tr>
<td>(F statistics/ Wald’s test)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman’s test</td>
<td>10.99***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified Wald’s test</td>
<td>790***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wooldridge’s test</td>
<td>257.653***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: OLS: Ordinary Least Squares model; FEM: Fixed Effects model; REM: Random Effects model; FGLS: Feasible Generalized Least Squares model. The t-statistic value is in ( ). ***, **, and * represent the 1%, 5%, and 10% significance levels, respectively.
Among firm-specific factors, the firm’s size significantly positively affected the quality of financial statements at any significance level. This result is consistent with the aforementioned arguments and expectation that larger firms attract more public attention to their business activities and social responsibilities, encouraging them to perform more honest and intensive information (Tran et al., 2021; Nguyen et al., 2021b; Nguyen et al., 2020b). Contrastingly, the coefficient of dummy variable BIG4 was negative, however insignificant at any significance level. Hence, the study could not identify whether being audited by Big 4 auditing firms impact the quality of firms’ financial statements. This finding contradicts some previous studies’ evidence, such as Huang et al. (2012) and Ha and Tran-Dang (2020). Through these results, this study contributes to the literature on how analysts, creditors, and investors link corporate financial information to CEO compensation compared to common accounting-based measures (Choi & Suh, 2019). Furthermore, this study provides new evidence on the role of tying CEO compensation to disclosure, better-motivating managers to enhance the company’s value in the long run.

Conclusion

The fast-paced development of economic globalization and capital markets urges the public to focus on the quality of disclosed financial statements and the behaviors of senior executives. Although a long record of studies has focused on the correlation between the corporate board’s characteristics, especially the CEOs’, and the reported information quality, few of them noticed the individual effect of a CEO’s income. Moreover, most previous studies used quantitative measures to evaluate the qualitative properties of financial information disclosure, which lacked comprehensiveness and suitability for emerging countries. Therefore, this study took advantage of qualitative characteristics of financial reporting proposed by IASB and the measurement designed by McDaniel et al. (2002), Choi and Suh (2019), and Kabwe (2023) to quantify the quality of reported financial information. The study examined the relationship between the CEOs’ income and the quality of financial statements of industrial firms listed on the Ho Chi Minh Stock Exchange (HSX) during the three years from 2018 to 2020. The authors used different linear regression models (pooled OLS, REM, and FEM) and statistical tests to check the results’ robustness and identify the regression errors, then employed the FGLS estimation to cover these flaws.

The main finding contributes to the empirical evidence that the CEO’s income positively affected the quality of corporate financial statements. Nevertheless, the authors clearly demonstrate that this positive effect was unstable due to external factors, such as the estimation methods, types of compensation offered to CEOs, and their incentives related to personal benefits and the firm’s prospects. Additionally, the analysis results confirm the positive correlation between the firm’s size and the quality of disclosed reports, consistent with prior studies. However, the authors found that the quality of financial statements was not influenced by Big 4 auditors, which is unexpected from some previous literature.
Despite these contributions, the study could not avoid some limitations. Generally, most quantitative models require large datasets to build the objectiveness and credibility of the regression results (Bansal & Corley, 2011), which can be an obvious challenge for emerging countries due to data constraints. Thus, the authors had to reduce the sample size to ensure the balance of the panel data. Other studies can use a larger sample comprising different industries and countries to strengthen the robustness and representativeness of the research findings. Besides, due to the authors’ perspective, the study merely focused on the mono-directional impact of the CEO’s income on the financial statement quality. However, several studies have mentioned the reverse, or even causal, effect between these aspects, e.g., Choi and Suh (2019) and Cheng and Farber (2008). Further studies can broaden their perspectives to investigate this relation’s multidimensionality and add other factors (e.g., refers to Rahmawati et al., 2021; Darsono et al., 2022a; Darsono et al., 2022b; Tran et al., 2023).

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