FINANCIAL STATEMENTS’ RELIABILITY AFFECTS FIRMS’ PERFORMANCE: A CASE OF VIETNAM

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ABSTRACT
This paper aims to estimate the effect of the reliability of financial statements on listed firms’ performance in Vietnam, especially on the Ho Chi Minh City Stock Exchange, from 2015 to 2022. Based on International Financial Reporting Standards, Generally Accepted Accounting Principles, and theories, reliability is a key attribute of information quality in financial statements. Besides, using the quantitative method of feasible generalized least squares (FGLS), the findings show that reliability positively affects listed firms’ performance with a confidence interval of 95%. On the platform of agency theory, the reliability of financial statements is considered a tool to fulfill the duties and responsibilities of managers and the board of directors to external users, while stakeholder theory considers the advantages of the disclosure of reliable financial statements in terms of gaining performance.

Keywords: firm performance; reliability; agency theory; stakeholder theory; Vietnam

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INTRODUCTION
The collapse of enterprises in the world, such as Enron (2001), WorldCom (1999), Lehman Brothers Bank (2008), and two typical violations of fraud in financial statements in Vietnam (Bach Tuyet Cotton Joint Stock Company, Truong Thanh Wood Industry Group), have significantly eroded
the confidence of users of accounting information in financial statements. Those scandals have reduced the reliability of financial statements for users who rely on these statements to make decisions (Eduardo et al., 2002). This also leads to a loss of public confidence in using the accounting information in financial statements.

According to Huff and Delcoure (2014), and Iatridis (2010), adopting International Financial Reporting Standards (IFRS) contributes to enhancing the quality of accounting information and lowering the information asymmetry between shareholders and managers. The IFRS framework, approved by the International Accounting Standards Board (IASB) in September 2010, defines the purpose of financial statements as "to provide useful financial information about an enterprise to existing and prospective investors, potential lenders, and other creditors in making decisions about the provision of resources to the business".

Investors can decide to continue investing or withdrawing capital using the companies' financial statements. These reliable reports also assist material suppliers and lenders evaluate a company's viability before doing business with it. Financial statements also demonstrate the social responsibility of businesses in disseminating information about shared interests. According to Safkaur et al. (2019), highly reliable financial statements help increase the firm's performance and positively influence the strategic decisions of investors and managers. Thus, the reliability of financial statements is a concern for many stakeholders, such as administrators, investors, customers, and banks.

Reliable financial statements provide useful information to users in making their decisions (Socea, 2012; Tontiset & Kaiwinit, 2018). Prior studies have shown that financial statements' reliability increases companies' performances efficiently, especially in large companies (Abd-Elnaby et al., 2021; Al-Dmour, 2018; Alesaaa et al., 2020). These authors conducted their studies with primary data by using a questionnaire survey, except for the studies by Al-Dmour (2018) and Alesaaa et al. (2020). Based on some theories and empirical studies, the current work estimates the effect of the reliability of financial statements on listed firms' performance in the Ho Chi Minh Stock Exchange (HOSE) from 2015 to 2022. To evaluate that objective, the research question is clarified as follows “To what extent, how does financial statements’ reliability affect the listed firm's performance in Vietnam from 2015 to 2022”.

Significantly, this paper highlights two contributions. First, the study explores the relationship between the reliability of financial statements and firms' performance under the IASB’s fundamental qualitative characteristic framework. Second, the study addresses the role of reliability in improving firms' performance based on agency and stakeholder theories.

**LITERATURE REVIEW**

According to the conceptual framework, reliability is free from material error or bias to ensure the reports are represented faithfully. Unreliability, then, can lead to uncertain measurements of assets or liabilities (International Financial Reporting Standards, 2014) that negatively affect the quality of financial reports. Furthermore, the IASB mentions the matter for disclosure under IFRS 13, which is about the reliability of measurement to reduce asymmetric information (Iatridis, 2010). For Normanton (1971), taking public accountability implies making the accountability process accessible to outside parties rather than keeping it as an internal issue between the principal and the agent. Agency theory suggests disclosing information to reduce information asymmetry between principals and agents, especially managers, who are accountable to principals.

From a practical point of view, owners' constraints are related to control and management ability (Quoc Trung, 2021). Eisenhardt (1989) emphasized that a good corporate governance system can reduce conflicts within the agency because it requires managers and the board of directors to regulate the disclosed information transparently and reliably so that stakeholders can make their own evaluations and investments (Gaa, 2009). A higher reliability of financial statements can be obtained when the board of directors has enough expertise and diversity to supervise and monitor activities effectively (Arcas-Pellicer et al., 2022). Agency theory considers the reliability of financial statements as a tool to fulfill the duties and responsibilities of managers and boards of directors to external users. In contrast,
stakeholder theory considers the advantages of disclosing reliable financial statements to gain support from outside communities, for instance, governments, trade unions, and financial institutions (Arcas-Pellicer et al., 2022). In addition, stakeholder theory mentions that the improved quality of the information in financial statements is a sign of public accountability and commitment to the users of these reports (Coy & Dixon, 2004). This improves stakeholders’ confidence in the entities via the reliability of financial statements (Michelon & Parbonetti, 2012). Implementing IFRS has increased the reliability of information in the disclosure of financial statements (Jianu & Jianu, 2021). According to Armstrong et al. (2010), investors expect the application of IFRS to aim for higher quality financial reporting information that lowers the risk of information asymmetry among the firm investors (Akgün, 2016a). Firms applying IFRS have higher financial reporting quality and greater comparability than those applying domestic accounting standards. Thus, they can gain more market benefits (Barth et al., 2012).

Some researchers have focused on the factors that impact the reliability of financial statements of listed manufacturing companies. For example, Evana and Dewi (2017) found out the audit committee has a positive impact on the reliability of financial statements, and Tontiset and Kaiwinit (2018) found that accounting professional ethics, the quality of the accounting information system, the audit committee’s effectiveness, and the audit firm’s quality all significantly positively influence the reliability of financial statements. Following these research orientations in Vietnam, Nguyen (2021) identified factors and measured their impact on the quality of financial reporting information for small and medium-sized enterprises in Binh Dinh Province. To increase the quality of financial reporting information of small and medium-sized enterprises, the companies need to focus on factors such as internal control, regulatory environment, accounting work process, information disclosure, audit, and accountant qualifications. Furthermore, Abd-Elnaby et al. (2021) investigated the impact of financial reporting quality on corporate financial performance. Bukunya (2014) listed information quality characteristics that affect firms’ performance, including reliability, relevance, accuracy, timeliness, and intelligibility. Applying Jones’s (1995) model, the evaluation of financial statement quality is measured using reliability and relevance that impact financial performance.

Furthermore, Akgün (2016b) emphasized the importance of the reliability of financial statements in corporate governance, concluding that the reliability of financial statements will help provide shareholders, partners, investors, and other stakeholders with valuable information to make accurate decisions. This study showed that increased reliability of financial statements will promote the effectiveness of the control structure in the enterprise through good corporate governance practices. Expanding on the quality of accounting information, Al-Dmour (2018) examined how reliability mediates the impact of accounting information systems on financial performance. The result of Al-Dmour’s study (2018) proved that the reliability of accounting information systems has a significant positive impact on financial performance.

To summarize, even though many scholars are concerned about the role of financial statements’ reliability and how to improve the quality of financial statement quality, only the research of Abd-Elnaby et al. (2021) investigated the impact of financial reporting quality on corporate financial performance when applying IFRS. Because financial statements in Vietnam are based on the Vietnamese accounting standards, which were adopted as part of international accounting standards, finding the impact of the reliability of accounting information on financial performance is quite important in the Vietnamese context.

### Financial statements’ reliability

In terms of FASB Concepts Statement No. 2 (FASB, 1980) the reliability of a measure depends on how faithfully it represents what it intends to present (representation faithfulness), as well as an assurance for the user that it has representational quality, which comes from verification (European Financial Reporting Advisory Group - EFRAG, 2013). Informational reliability is defined as the process of determining whether the content of certain information is truthful or reliable based on predetermined criteria. It assesses whether one is justified in maintaining belief regarding given information and to what extent this belief can be maintained (Ripoll & Matos, 2020). The term...
"reliability of financial statements" refers to published financial statements that have been reliably prepared to offer users information useful for making economic decisions that result in an efficient allocation of resources for enhancing firms' performance (Socea, 2012; Tontiset & Kawai, 2018). Prior studies have shown that financial statements' reliability increases companies' performances and operations efficiency, especially in large companies (Abd-Elnaby et al., 2021; Al-Dmour, 2018; Alesaa et al., 2020).

According to An (2015), conservatism is an important measure of financial reporting quality because conservatism decreases opportunistic management behaviors and mitigates information asymmetries. According to Arsenijević (2020), conservative reporting “can increase the reliability of financial information because conservatism results in fewer estimates (and, thus, more objective measurement)” (Balachandran & Mohanram, 2011). Conservatism is a proxy for financial reporting quality using three piecewise accrual models (Ball & Shivakumar, 2006).

At the firm-year level, accruals measurements are equal to the average of (non-operating) accruals scaled by total assets over the preceding five years (with a minimum of two years) or centered on the observation year, multiplied by a negative one. More conservative earnings result in higher non-operating accruals (Zhong & Li, 2017). According to Givoly & Hayn (2000), the reliability of financial statements is measured based on the conservatism model, which is calculated using the following formula (1).

\[
\text{non-operating accruals} = \frac{\text{Non-Operating accruals}}{\text{Total assets}}
\]

(1)

\[
\text{Non-Operating accruals} = \text{Total accruals} - \text{Operating accruals}
\]

(2)

In this paper, the reliability of financial statements is measured by non-accruals multiplied by negative ones (Zhong & Li, 2017). Based on the above discussions, the following hypothesis is suggested:

**Hypothesis 1:** The reliability of financial statements positively affects listed firms' performance in HOSE.

**Control factors**

Firm size is defined as "a firm's capability and the variety and number of manufacturing capabilities or the quantity and variety of services a firm can offer its customers concurrently" (Luttmer, 2010). According to Hall and Weiss (1967) firm size is highly correlated with performance. Additionally, Liu (2020) has confirmed that increased fit size is required for greater profitability. Larger firms have a higher capacity to take advantage of economies of scale, diversify their operations and products, and invest in strategies to strengthen potential competitors' entry barriers. Yadav et al. (2021), however, confirmed that firm size hurts the firms' performance. In this paper, firm size is measured by ln(total assets), and the second proposed hypothesis is as follows:

**Hypothesis 2:** Firm size positively affects the listed firms' performance in HOSE.

The term "firm age" describes how long an entity has existed. As a result, the year of incorporation is used to determine the company's age (Shumway, 2001). The studies by Aduralere Opeyemi (2019) and Pervan et al. (2019) revealed that the firm's performance increases over time. Recently, others demonstrated the negative effect of firm age on firms' performance (Akben Selçuk, 2016; Dang et al., 2020; Liu, 2020). These authors argued that younger companies are more proactive and have a broader awareness of the risks related to the various available investment options. Hence, they can obtain and improve a higher level of performance in their activities (Shane & Venkataraman, 2000).

**Hypothesis 3:** Firm age negatively affects the listed firms' performance in HOSE.

Audit firms are classified into two broad types: big audit firms (the Big Four) and non-big audit firms (the Non-Big Four), with the Big Four providing higher audit quality (El-Dasty & Elamer, 2020). Amahalu (2020) and Zahid et al. (2022) affirmed that the type of audit firm affects firms' performance positively. Audit firm type is a dummy variable in their studies that captures a shift in perceived audit quality between Big 4 and non-Big 4. Big audit firms can differentiate their services from smaller ones and offer higher audit quality since they have distinct human resources and higher technical and technology capabilities. Hence, companies audited by the Big 4 can perform better than those audited by non-Big4.

**Hypothesis 4:** Audit firm type positively affects the listed firms' performance in HOSE.

The ability of a business to turn its financial assets into cash as quickly as possible or in a
short period—or the availability of the funds to meet all of its financial obligations as they come due—is referred to as liquidity (Masood et al., 2015). Put another way, the liquidity of a business entity is the ability to satisfy short-term obligations as they fall due, and it is the primary concern to most investors because they can evaluate an entity's liquidity; assets and liabilities are classified as current (short-term) and non-current (long-term) (Hoggett et al., 2018). According to (Omondi & Muturi, 2013), improving a firm's performance requires more liquidity. As a result, Alhabsji et al. (2017) confirmed that liquidity is an important index to indicate the maintenance and growth of most firms, so it is necessary to manage it correctly. Therefore, liquidity management is a significant thing that can cause a company's success and vice versa. Due to the trade-off between risk and return, businesses with optimal liquidity levels perform better. However, other studies, such as (Alarussi & Gao, 2021; Hossain, 2020; Pervan et al., 2019) investigated the negative effect of liquidity on firm performance. The liquidity retained at a high level will result in a large amount of capital embedded in current assets that cannot be used to generate revenue. Due to missing the chance to use pricey capital, the company's earnings decreased. Based on the above arguments, hypothesis five is proposed as follows.

Hypothesis 5: Liquidity negatively affects the listed firms' performance in HOSE.

Gross Domestic Product (GDP) is a macroeconomic indicator influencing financial market participants. It is used as an indicator to measure economic growth, which affects the performance of companies in different industries (Ho et al., 2019; Lee & Lee, 2019; Toader et al., 2018). GDP significantly affects the firms' performance (Hailegebreal, 2016; Hang & Thuy Linh, 2020; Hasan et al., 2018).

Hypothesis 6: Gross Domestic Product positively affects the listed firms' performance in HOSE.

Another macroeconomic element that substantially impacts enterprises' performance is inflation and GDP. The inflation rate, which is most frequently measured by the percentage increase in the consumer price index, is the annual percentage growth of several popular indexes of money prices (Ministry of Planning and Investment, 2020). The inflation rate reflects the increase in the economy's price level. Matar et al. (2018) observed an inverse relationship between inflation and the firm's performance, while Cetin (2019); Saif-Alyousfi (2022) demonstrated the positive and statistically significant impact of inflation on the firms' performance.

Hypothesis 7: Inflation negatively affects the listed firms' performance in HOSE.

METHODOLOGY

This study employs quantitative methodology, such as Pooled ordinary least squares (OLS), the fixed effects model (FEM), the random effects model (REM), and feasible generalized least squares (FGLS) to estimate the effect of financial statement reliability on firm performance under the role of moderating factor. To choose the optimal model, an F-test was used to choose between the Pooled OLS and FEM models. If the probability value Prob (Chi-square) is less than the 5% significance level, FEM is chosen. A Hausman test was used to determine whether FEM and REM models are preferred. If the probability value Prob (Random) is less than the 5% significance level, the FEM model is chosen. After selecting the optimal model, defective phenomena, such as multicollinearity, autocorrelation, and heteroscedasticity, were tested. FGLS regression was used to solve and ensure unbiased results when the model still comprised the defective issues.

Data collection and sampling

The number of nonfinancial listed firms on HOSE from 2015 to 2011 is 235, excluding companies that have not yet released audited financial statements for 2022. Including secondary data for the 235 firms from 2015 to 2022, the sample size is 235 * 8 = 1,880 observations. However, because of the availability of transparent information, the number of observations for this study is 1,868 after eliminating unobtained data. Data for analysis are taken from financial statements, annual reports, banks' websites, and the FiinPro database. Macroeconomic factors come from the World Bank website.

Research model

The research model (3) used in this paper is as follows:
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\[
\text{performance}_{i,t} = \alpha_0 + \alpha_1 \text{reliability}_{i,t} + \sum \alpha_j \text{control variables}_{i,t} + \varepsilon
\]

(3)

Where:

- \(\text{performance}_{i,t}\): is the performance of firm i at time t.
- \(\text{reliability}_{i,t}\): Is the reliability of the financial statements of the firm i at time t?

Table 1: Variables in model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Index</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>firm performance</td>
<td>ROE</td>
<td>(\text{ROE} = \frac{\text{Net income}}{\text{Owner's equity}})</td>
</tr>
<tr>
<td>Independent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FS's reliability</td>
<td>rel</td>
<td>(\text{rel} = \text{non - accruals} \times (-1) = \left[\frac{\text{Non-operating accruals}}{\text{Total assets}}\right] \times (-1))</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>size</td>
<td>(\text{size} = \ln(\text{total assets}))</td>
</tr>
<tr>
<td>Audit firm type</td>
<td>audit</td>
<td>(\text{audit} = 1) if Big4, audit firm = 0 otherwise</td>
</tr>
<tr>
<td>Firm age</td>
<td>age</td>
<td>(\text{age} = \text{Length of time that a company has existed})</td>
</tr>
<tr>
<td>Liquidity ratio</td>
<td>liq</td>
<td>(\text{liq} = \frac{\text{Current assets}}{\text{Current liabilities}})</td>
</tr>
<tr>
<td>GDP growth rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation rate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author's collection

DISCUSSION

Model analysis

Table 2: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>1,868</td>
<td>0.079</td>
<td>-40.890</td>
<td>1.590</td>
</tr>
<tr>
<td>rel</td>
<td>1,868</td>
<td>-0.016</td>
<td>-1.770</td>
<td>1.130</td>
</tr>
<tr>
<td>size</td>
<td>1,868</td>
<td>28.214</td>
<td>24.910</td>
<td>33.990</td>
</tr>
<tr>
<td>age</td>
<td>1,868</td>
<td>3.216</td>
<td>1.950</td>
<td>4.550</td>
</tr>
<tr>
<td>liq</td>
<td>1,868</td>
<td>2.710</td>
<td>0.100</td>
<td>52.260</td>
</tr>
<tr>
<td>audit</td>
<td>1,868</td>
<td>0.414</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>gdp</td>
<td>1,868</td>
<td>0.062</td>
<td>0.030</td>
<td>0.080</td>
</tr>
<tr>
<td>inf</td>
<td>1,868</td>
<td>0.030</td>
<td>0.010</td>
<td>0.040</td>
</tr>
</tbody>
</table>

Source: From Stata software

Table 2 shows the descriptive statistics of all variables in the model. ROE has a mean value of 0.079; its maximum, minimum, and standard deviations are 1.590, -40.890, and 0.992, respectively. The maximum value of ROE (1.590) belongs to Truong Thanh Furniture Corporation in 2019, while it also had the lowest loss, -40.890, in 2018.

Concerning the FS's reliability, its minimum and maximum values are -1.770 and 1.130, respectively. The lower the value, the higher the reliability. This number belongs to the Sieu Thanh Joint Stock Company in 2022; Japan Vietnam Medical Instrument Joint Stock Company in 2015 has the lowest reliability.

Firm size and firm age have maximum values of 33.990 and 4.550, and their lowest values are 24.910 and 1.950. VinGroup Joint Stock Company, in 2022, has the largest total assets, and the lowest asset value belongs to Hoi An Tourist Service Joint Stock Company, also in 2022.

The liquidity variable's maximum value is 52.260, while the minimum value is 0.100. Sai Gon Vien DongTechnology company had the highest liquidity in 2022 because its current assets were 52.27 times more than its current liabilities. On the other hand, Sai Gon Machinery Spare Parts JSC had the lowest liquidity in 2021 because its current asset value was 17,302
million VND, while its current liabilities were approximately 132,145 million VND.

The dummy variable in the model is the audit firm. It has a maximum value of 1 and a minimum value of 0. Big4 audit firm is a dummy variable for the audit firm, which equals one if a Big4 audit company audits the firm and 0 otherwise.

The macroeconomic variables of gross domestic product and inflation have maximum values of 8.02% and 4% (in 2022), respectively. Their minimum values correspond to 3% in 2021 and 1% in 2015.

The next section presents the test of a multicollinear phenomenon, autocorrelation, and heteroskedasticity after running the OLS between roe (dependent variable) and all independent variables.

Table 3. Correlation matrix and VIF

<table>
<thead>
<tr>
<th></th>
<th>roe</th>
<th>rel</th>
<th>size</th>
<th>age</th>
<th>liq</th>
<th>audit</th>
<th>gdp</th>
<th>inf</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rel</td>
<td>0.272</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>size</td>
<td>0.123</td>
<td>-0.161</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.070</td>
</tr>
<tr>
<td>age</td>
<td>-0.035</td>
<td>-0.025</td>
<td>0.025</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.230</td>
</tr>
<tr>
<td>liq</td>
<td>-0.001</td>
<td>-0.019</td>
<td>-0.031</td>
<td>-0.074</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>1.010</td>
</tr>
<tr>
<td>audit</td>
<td>0.116</td>
<td>-0.067</td>
<td>0.349</td>
<td>0.008</td>
<td>-0.060</td>
<td>1.000</td>
<td></td>
<td></td>
<td>1.160</td>
</tr>
<tr>
<td>gdp</td>
<td>0.131</td>
<td>0.175</td>
<td>0.072</td>
<td>-0.026</td>
<td>-0.006</td>
<td>0.104</td>
<td>1.000</td>
<td></td>
<td>1.050</td>
</tr>
<tr>
<td>inf</td>
<td>0.415</td>
<td>-0.002</td>
<td>0.231</td>
<td>0.063</td>
<td>0.004</td>
<td>0.089</td>
<td>0.001</td>
<td>1.000</td>
<td>1.070</td>
</tr>
</tbody>
</table>

Source: From Stata software

According to (Hair Jr et al., 1995; Montgomery et al., 2021; O’brien, 2007), a VIF coefficient of less than 10 is acceptable. As a rule of thumb, all VIF values are smaller than 10 (Table 3). Thus, there is evidence of the absence of multicollinearity. In addition, a correlation matrix is constructed to confirm the degree of the linear relationship between variables in a dataset. Its results show that the absolute value of the Pearson correlation coefficient is less than 0.7, which confirms that collinearity is very less likely to exist in the model (Ratner, 2009; Shrestha, 2020).

Table 4. Test of autocorrelation and heteroskedasticity

<table>
<thead>
<tr>
<th>No.</th>
<th>Test</th>
<th>p-values</th>
<th>H0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wooldridge test for autocorrelation in panel data</td>
<td>0.008</td>
<td>Reject</td>
</tr>
<tr>
<td>2</td>
<td>Breusch-Pagan / Cook-Weisberg test for heteroskedasticity</td>
<td>0.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Source: From Stata software

Tests for autocorrelation and heteroskedasticity were used to support the claim that the residuals are independent of each other and no systematic change occurred in the spread of the residuals over the range of the measured values. The obtained results in Table 4 show the model does contain heteroskedasticity and autocorrelation; FEM and REM methods were used to solve those problems.

Table 5. Results of choosing the FEM model

<table>
<thead>
<tr>
<th>Test</th>
<th>F</th>
<th>Hausman Test</th>
<th>Breusch and Pagan test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection</td>
<td>OLS &amp; FEM</td>
<td>FEM &amp; REM</td>
<td>OLS &amp; REM</td>
</tr>
</tbody>
</table>

Source: From Stata software
Hypothesis

Null hypothesis:
- OLS model: \( y_{it} = a + b'X_{it} + \varepsilon_{it} \)
- and alternative the FE model: \( y_{it} = a + b'X_{it} + \alpha_i + \varepsilon_{it} \)

Hausman test: the null hypothesis is that the preferred model is random effects.

The null hypothesis in the L.M. test is that variances across entities is zero.

<table>
<thead>
<tr>
<th>p-value</th>
<th>Prob &gt; F = 0.0000</th>
<th>Prob&gt;chi2 = 0.0000</th>
<th>Prob &gt; chibar2 = 1.0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Action</td>
<td>Reject H0</td>
<td>Reject H0</td>
<td>Accept H0</td>
</tr>
<tr>
<td>Selection</td>
<td>FEM</td>
<td>FEM</td>
<td>REM</td>
</tr>
<tr>
<td>Conclusion</td>
<td>FEM is chosen.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: From Stata software

As shown in Table 5, the FEM model is suitable for the research model, however, heteroskedasticity still exists. Therefore, feasible generalized least squares (FGLS) regression was used to solve those problems and ensure unbiased results.

Table 6: Results of FGLS for two models

<table>
<thead>
<tr>
<th>Roe</th>
<th>Coef.</th>
<th>P&gt;z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel</td>
<td>0.591</td>
<td>0.000</td>
</tr>
<tr>
<td>Size</td>
<td>0.039</td>
<td>0.071</td>
</tr>
<tr>
<td>Age</td>
<td>-0.207</td>
<td>0.009</td>
</tr>
<tr>
<td>Liq</td>
<td>0.063</td>
<td>0.724</td>
</tr>
<tr>
<td>Audit</td>
<td>0.251</td>
<td>0.000</td>
</tr>
<tr>
<td>Gdp</td>
<td>0.488</td>
<td>0.001</td>
</tr>
<tr>
<td>Inf</td>
<td>0.893</td>
<td>0.075</td>
</tr>
</tbody>
</table>

Note: roe is return on equity; size is firm size; age is firm age; liq is liquidity ratio; audit is audit firm; gdp is the growth of gross domestic product; inf is the inflation rate.

Source: From Stata software

Results analysis

The findings show that the research model has six statistically significant variables at 5%, while there are eight statistically substantial variables in Model 2, which considers the moderating role of firm size.

The findings present the direct effects of the reliability of financial statements on performance. A coefficient of 0.591 means that the higher the reliability of the companies’ FS, the more performance they can obtain. The finding is supported by the studies of (Abd-Elnaby et al., 2021; Akgün, 2016a; Jianu & Jianu, 2021). According to Adediran et al. (2013), in the aspect of profitability, managers of organizations would be more willing to report profit than loss because of the effect such news could have on the share price and other indicators. The argument has been supported by prior research, which documents the fact that managers are more prone to release good news (profit) compared to bad news (loss) (Chambers & Penman, 1984). Their findings align with agency theory; in large companies, the higher the financial performance efficiency, the more managers want to reveal more information to gain personal benefits such as a promotion or higher compensation (Inchausti, 1997). According to Jianu and Jianu (2021), firm performance is increased after the reliability of financial statements is improved by implementing IFRS. The findings confirm the hypothesis, indicating that reliability indeed has a positive influence on firm performance.

Regarding control variables, including firm age, audit type, and gross domestic product, matching the given hypotheses, the research results proved audit firms and gross domestic product positively impact firm performance, while firm age harms it. First, firm age hurts listed firms’ performance in HOSE because its coefficient is negative. The negative coefficient implies that a one-standard-deviation increase in firm age will lead to a 0.207 decrease in listed firms’ performance in HOSE, other things being equal. The findings are consistent with the studies by Almoneef and Samontaray (2019), Liu (2020), and Rahman and Yilun (2021). The negative coefficient shows that the firm’s performance decreases when the firm gets older. Second, audit firm type positively affects
listed firms’ performance in HOSE. Another line of studies observed a positive relationship between audit firm type and firms’ performance (Amahalu, 2020; Zahid et al., 2022). They realized that high-ranking audit firms audit companies reliably, appropriately, and authentically in financial statements, aiming to consolidate investors' confidence. They also found that a significantly better performance is associated with firms with higher disclosure quality indicators from Big Four accounting firms’ audited financial reports. Third, gross domestic product has a significant positive effect on firms’ performance. The result indicates that hypothesis 6 is supported statistically and is also consistent with the studies by Hang and Thuy Linh (2020), and Hasan et al. (2018). An increase in GDP is interpreted as a sign that the economy is doing well, which promotes firms’ performance. Those authors also demonstrated that expanding economies allow companies to run more effectively.

CONCLUSION AND RECOMMENDATION

Based on the quantitative method FGLS, this study has explored the significant positive effect of the reliability of financial statements on listed firms’ performance in the context of a developing country - Vietnam. The results are explained based on agency theory and stakeholder theory, which are considered mechanisms to facilitate the reduction of asymmetric information between insider and outsider investors and take advantage of the disclosure of reliable financial statements to promote performance.

Vietnamese-listed companies adhere to Vietnamese accounting standards (VAS) when preparing their financial statements. While IAS/IFRS have been regularly updated in response to rapid changes in the business environment, VASs have remained unchanged. Therefore, government support, along with the crucial roles of managers and boards of directors, is required to enhance the reliability of financial statements. Currently, Vietnam is in the process of converging with IAS/IFRS by 2025. With this commitment from the government, the financial statements of listed Vietnamese enterprises are expected to become more reliable. To achieve this, the government must establish more legislative regulations for businesses’ successful adoption of IFRS, particularly regarding financial statement disclosure, to ensure high dependability. From an organizational perspective, managers must prioritize educating employees and updating existing laws and IFRS to complete accounting systems and enhance the reliability of financial statements. Besides,

However, the study has some limitations, even though the paper presents specific findings. First, this paper investigates the impact of the reliability of financial statements on firms’ performance in Vietnam under the role of a moderator factor, which focuses on the data of firms taken from the Ho Chi Minh City Stock Exchange. The data set, however, should cover all firms listed on the Hanoi Stock Exchange and the Ho Chi Minh City Stock Exchange to have a comprehensive outlook on the Vietnam market. Second, the model is regressed without the role of a mediating or moderating factor. Hence, it is important to investigate the relationship between the financial statements’ reliability and firms’ performance, which is mediated or moderated by the firm size factor.

REFERENCES


Akgün, A. İ. (2016a). Quality of the Financial Reporting within the IFRS: Research on


Inchausti, B. G. (1997). The influence of...


