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TRAN THI HANG

RESEARCH ON THE VALUE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS OF NON-FINANCIAL LISTED ENTERPRISES ON THE VIETNAM STOCK EXCHANGE

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SUMMARY OF DESERTATION IN ACCOUNTING

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Scientific supervisors:

1. Assoc. Prof. Dr. Nguyen Thi Xuan Hong
2. Assoc. Prof. Dr. Tran Manh Dung

Reviewer 1:

Reviewer 2:

Reviewer 3:

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CHAPTER 1

INTRODUCTION TO THE RESEARCH PROBLEM

1.1. RESEARCH RATIONALE

Accounting information (AI) presented in financial statements (FS) is a crucial source of data reflecting a firm's financial position, business performance, and future prospects, playing a central role in economic decision-making in capital markets. International studies have demonstrated that high-quality AI enhances resource allocation efficiency, supports firm valuation, and reduces information asymmetry (Barth et al., 2001; Francis & Schipper, 1999). According to IASB (2018), relevance is one of the two fundamental qualitative characteristics of AI, expressed through predictive value and confirmatory value, thereby influencing users' economic decisions.

Despite its theoretical recognition, the relevance of AI remains a debated issue, particularly regarding its measurement, especially through stock price valuation models (Barth et al., 2001; Holthausen & Watts, 2001). Differences across research models and economic–market contexts, such as the COVID-19 pandemic or the increasing importance of intangible assets, further complicate the relationship between AI and stock prices, necessitating a reassessment of traditional measurement approaches.

In emerging markets, including Vietnam, limitations in market efficiency, information transparency, and monitoring mechanisms result in unstable relevance of AI in financial statements. Domestic studies indicate that the explanatory power (R^2) of stock price valuation models varies significantly across industries and is influenced by firm size and economic conditions (Nguyen & Dang, 2023; Tran et al., 2023; Truong Dong Loc & Nhat, 2016). This highlights the need for a comprehensive evaluation of AI relevance tailored

to the characteristics of the Vietnamese market, particularly for listed non-financial firms.

Moreover, empirical evidence suggests that the relevance of AI depends on economic–financial characteristics, ownership structure, corporate governance, and external monitoring mechanisms (Barth et al., 2001; DeAngelo, 1981; Rahman & Liu, 2021). Therefore, systematically examining the determinants of AI relevance in Vietnam not only contributes additional empirical evidence but also supports the improvement of accounting policies and disclosure practices.

Based on the above theoretical and practical considerations, the selection of the research topic titled *"Research on the value relevance of accounting information in financial statements of non-financial listed enterprises on the Vietnamese stock exchange"* is necessary, timely, and meaningful both academically and practically.

1.2. RESEARCH OBJECTIVES

First, to measure the relevance of accounting information using stock price valuation models, thereby assessing the extent to which accounting information is reflected in stock prices through the explanatory power of accounting variables in the model; and to examine differences in relevance across industries, over time, and across economic periods.

Second, to analyze the magnitude and direction of the effects of various factors on the relevance of accounting information in the financial statements of listed non-financial firms on the Vietnamese stock market.

Third, to provide empirical evidence on the relevance of accounting information and its determinants in the context of the Vietnamese stock market, thereby serving as a basis for proposing recommendations to improve the quality of accounting information and disclosure practices.

1.3. RESEARCH QUESTIONS

Question 1: How is the relevance of accounting information in financial statements of listed non-financial firms on the Vietnamese stock market measured through stock price valuation models, and does this relevance differ across industries, over time, and across economic periods?

Question 2: What factors affect the relevance of accounting information in financial statements of listed non-financial firms on the Vietnamese stock market, and what are the magnitude and direction of these effects?

1.4. RESEARCH OBJECTS AND SCOPE

Research Objects:

This dissertation focuses on the relevance of accounting information in the financial statements of listed non-financial firms on the Vietnamese stock market, measured through the extent to which key accounting indicators (earnings, book value of equity, and operating cash flows) are reflected in stock prices.

On that basis, the study examines the magnitude and direction of the impact of firm-specific characteristics as well as market conditions on the relevance of disclosed accounting information.

Research Scope:

Content scope: The dissertation focuses on two main aspects:

First, measuring and evaluating the relevance of accounting information in financial statements of listed non-financial firms on the Vietnamese stock market through the application of stock price valuation models.

Second, examining the effects of factors influencing the relevance of accounting information in financial statements.

Spatial scope: Listed non-financial firms on the Ho Chi Minh City Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX).

Time scope: The study uses data from the period 2014–2024, covering the pre-, during-, and post-COVID-19 periods.

1.5. RESEARCH PROCESS

Step 1: Literature review and theoretical foundations

Step 2: Identification of research gaps, objectives, and research questions

Step 3: Development of the research model and hypotheses

Step 4: Data collection and processing

Step 5: Model estimation and hypothesis testing

Step 6: Discussion of findings and policy recommendations

1.6. CONTRIBUTIONS OF THE DISSERTATION

Theoretical contributions:

The dissertation extends the theoretical framework on the relevance of accounting information by measuring the value relevance of key accounting indicators using an extended Ohlson stock valuation model. It thereby clarifies the variation of this characteristic across industries, over time, and across economic periods.

Practical contributions:

The study provides systematic empirical evidence on how the market incorporates accounting information of listed non-financial firms, thereby supporting investors, firms, and regulators in valuation, decision-making, and improving accounting policies and disclosure practices, particularly in the context of IFRS adoption.

Methodological contributions:

The dissertation employs a two-step approach combining panel data regression with the application of Shapley value decomposition to assess the relative contribution of each accounting indicator. This enhances analytical

depth and opens avenues for further research on accounting information quality in emerging markets.

1.7. STRUCTURE OF THE DISSERTATION

The dissertation is structured into five chapters as follows:

Chapter 1: Introduction to the research problem

Chapter 2: Theoretical framework and literature review

Chapter 3: Research model and methodology

Chapter 4: Empirical results and discussion

Chapter 5: Conclusions and recommendations

CHAPTER 2

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. FINANCIAL STATEMENTS AND THE ROLE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

2.1.1. Concept and nature of financial statements

FS are the output of the accounting system, prepared to provide economic and financial information about a firm to external users, particularly participants in capital markets.

In essence, FS are not merely records of past transactions but the result of a process of measurement and presentation based on accounting standards, principles, and professional judgment. Therefore, AI in FS not only reflects past events but also contains economic implications related to future expectations, forming a basis for investors' analysis and forecasting.

2.1.2. The role of financial statements in providing information in capital markets

In capital markets, FS serve as the official, standardized, and highly comparable source of financial information across firms and over time. Through accounting indicators, FS provide a basis for investors to evaluate financial position, performance, and future prospects, thereby supporting investment decisions and resource allocation.

2.1.3. Financial statements in value relevance research

In empirical accounting and finance research, FS are used as the primary data source to evaluate the economic role of AI. Indicators such as earnings and book value are commonly incorporated into stock price valuation models to test the extent to which AI is reflected in market prices.

Accordingly, the relevance of AI is understood as the extent to which accounting information influences investors' decisions, as evidenced by the statistical relationship between accounting variables and stock prices or returns. Therefore, FS are not only a tool for information provision but also a crucial data foundation for measuring and testing the relevance of AI in capital markets.

2.2. ACCOUNTING INFORMATION AND ITS QUALITATIVE CHARACTERISTICS

2.2.1. Concept and classification of accounting information

AI is the output of the accounting system, comprising economic and financial data that are recorded, processed, and presented in accordance with standards to support evaluation and economic decision-making. Within the FS framework, AI reflects a firm's financial position, operating performance, and cash flows, while also possessing standardization and legal validity.

Based on usage objectives, AI can be classified into financial accounting information and management accounting information. Financial accounting information serves external users and is the primary source of information in capital markets, whereas management accounting information serves internal management purposes. This dissertation adopts a narrow perspective of AI, focusing on financial accounting information presented in FS to analyze its relevance in explaining stock prices and supporting investment decisions.

2.2.2. Qualitative characteristics of accounting information

According to the IASB (2018) Conceptual Framework for Financial Reporting, useful accounting information must possess two fundamental qualitative characteristics: relevance and faithful representation, along with enhancing characteristics. However, in modern accounting and finance research, these characteristics are not only normative but are also examined from the perspective of the economic role of information, leading to various academic debates regarding the relevance of AI in capital markets.

(i) Relevance and its central role in capital market research

(ii) Faithful representation and its foundational role

(iii) Enhancing qualitative characteristics and their supporting role

2.3. Empirical approach to the relevance of accounting information

In empirical studies, relevance is commonly measured using the coefficient of determination (R^2) or adjusted R^2 derived from valuation or return models, reflecting the extent to which AI is incorporated into stock prices (Dechow et al., 2010; Kothari, 2001). However, these measures have limitations, as they are influenced by market conditions and sample characteristics, and do not directly capture the economic value of AI (Holthausen & Watts, 2001).

On this basis, this study adopts an empirical approach, employing valuation models as a tool to assess the extent to which AI is reflected in stock prices. This approach not only quantifies the economic role of accounting information but also provides a foundation for analyzing its determinants in subsequent sections.

2.3. METHODS FOR MEASURING AND EVALUATING THE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

2.3.1. Qualitative measurement and evaluation methods

Qualitative methods assess the relevance of accounting information based on users' perceptions of its predictive value and confirmatory value, typically through questionnaire surveys using standardized scales. This approach is suitable in contexts with limited data availability and allows the usefulness of information to be quantified based on subjective assessments.

However, due to its reliance on individual perceptions, qualitative methods may be subject to bias and do not directly capture the quantitative impact of accounting information on the market. Therefore, this approach is

appropriate for evaluating users' perceptions and is often combined with quantitative methods to enhance the comprehensiveness of the analysis.

2.3.2. Quantitative measurement and evaluation methods

Quantitative methods evaluate the relevance of accounting information based on the ability of accounting indicators to explain variations in stock prices or returns, thereby reflecting actual investor responses. Commonly used indicators include earnings per share (EPS), book value per share (BVPS), and cash flow from operations per share (CFOPS), representing operating performance, net asset value, and cash-generating ability, respectively. In addition, some studies extend the analysis by incorporating non-financial indicators and intangible assets.

The primary measurement tools are the Ohlson price model and its extended variants, in which the R^2 (or adjusted R^2) is used as a quantitative proxy for relevance. In addition, stock return models are applied in short-term studies. Quantitative methods allow for an objective assessment of the relationship between accounting information and market outcomes; however, results may be influenced by non-accounting factors, particularly in emerging markets. Therefore, this approach is most appropriate when sufficient data are available and is often combined with qualitative methods to provide a comprehensive evaluation of the relevance of accounting information.

2.4. THEORETICAL FOUNDATIONS

2.4.1. Theoretical foundations for defining the nature and measurement of the relevance of accounting information in financial statements

2.4.1.1. Decision-usefulness theory

Decision-usefulness theory posits that financial accounting aims to provide information for economic decision-making, particularly investment decisions. AI is considered useful when it has predictive and confirmatory value

and is reflected in market valuation in capital markets. On this basis, the dissertation identifies relevance as a core qualitative characteristic of AI and measures it from a market-based perspective through its ability to explain variations in stock prices.

2.4.1.2. Value relevance theory of accounting information

The value relevance theory of accounting information holds that AI has economic significance only when it is used by investors in firm valuation and is reflected in stock prices. Under the empirical approach, the level of value relevance is assessed through the statistical relationship between accounting indicators and stock prices or returns, typically measured by the coefficient of determination (R^2) in valuation models.

In this dissertation, this theory serves as the theoretical foundation for quantifying the relevance of AI from a market-based perspective, reflecting the extent to which accounting information is incorporated into stock valuation in capital markets.

2.4.2. Theoretical foundations explaining the determinants of the relevance of accounting information in financial statements

2.4.2.1. Information asymmetry theory

Information asymmetry theory suggests that managers typically possess more information than investors, thereby reducing the efficiency of valuation in capital markets. In this context, accounting information serves as a formal mechanism to mitigate information asymmetry and is considered relevant only when it is transparent, reliable, and timely.

Based on this theory, the dissertation argues that differences in the relevance of AI across firms reflect differences in their ability to reduce information asymmetry. These differences are influenced by firms' economic

and financial characteristics, audit quality and audit timeliness, as well as stock trading characteristics.

2.4.2.2. Agency theory

Agency theory posits that the separation between ownership and control gives rise to conflicts of interest and agency costs. Transparent, faithfully represented, and timely accounting information serves as an important monitoring mechanism to constrain managerial opportunism, thereby enhancing the relevance of AI.

Accordingly, variations in the relevance of AI across firms reflect the effectiveness of corporate governance mechanisms, particularly ownership structure (state ownership, foreign ownership) and board characteristics (board size, meeting frequency), through their role in reducing agency conflicts and increasing the extent to which information is incorporated into market valuation.

2.5. LITERATURE REVIEW

2.5.1. Studies on the relevance of accounting information in financial statements

2.5.1.1. Studies based on accounting indicators

Research on the relevance of AI based on accounting indicators originates from Ball & Brown (1968) and Beaver (1968), who confirmed that accounting earnings contain information and are reflected in stock prices. Building on this foundation, three commonly used indicators are EPS, BVPS, and CFOPS.

- EPS is the central indicator in valuation and has a positive relationship with stock prices in both developed and emerging markets. However, its relevance is not stable over time and depends on the level of market development as well as the increasing role of non-accounting information.

- BVPS plays a complementary role and, in many contexts—particularly in emerging markets or when earnings are volatile—exhibits stable and sometimes even superior relevance compared to EPS.

- CFOPS reflects actual cash flows, helping to mitigate the effects of accounting accruals and serving as a complement to EPS and BVPS. However, its level of relevance varies across markets.

Overall, empirical evidence indicates that EPS, BVPS, and CFOPS all contribute to stock valuation, but the extent to which each indicator is reflected depends on market conditions and the quality of the information environment.

2.5.1.2. Studies by industry, time, and economic periods

Research shows that the relevance of AI is not uniform but varies across industries, over time, and across economic contexts. Across industries, EPS tends to be more relevant in stable sectors, whereas BVPS and CFOPS play a more dominant role in asset-intensive industries, cash flow-dependent sectors, or highly innovative industries.

Over time, the relevance of accounting indicators is dynamic: the role of EPS tends to decline, while BVPS and cash flow measures maintain or increase their importance, particularly during periods of economic instability. These findings highlight that the evaluation of AI should be context-specific rather than adopting a uniform approach across the entire market.

2.5.2. Studies on determinants of the relevance of accounting information in financial statements

2.5.2.1. Economic and financial characteristics

Firms' economic and financial characteristics (size, financial leverage, growth rate, and profitability) are important signals that reduce information asymmetry and influence the extent to which AI is reflected in stock prices.

Firm size and profitability generally have a positive effect, facilitating more stable and comprehensive use of AI by the market.

Financial leverage has a dual effect: it may reduce relevance due to higher risk, but it can also enhance the role of AI when monitoring and control mechanisms are effective. In contrast, high growth rates often reduce relevance due to earnings volatility and less stable information quality. Overall, the effects of these characteristics are conditional, depending on market context, industry, and institutional environment.

2.5.2.2. Ownership structure

Ownership structure significantly affects the quality and relevance of AI through monitoring mechanisms and managerial incentives. State ownership is often associated with objectives beyond shareholder value maximization and may reduce the informational role of AI, particularly in weak institutional and monitoring environments. However, this effect is conditional and can be mitigated by effective corporate governance mechanisms.

In contrast, foreign ownership generally has a positive impact on AI relevance by enhancing monitoring, improving transparency, and strengthening governance quality, although the magnitude of this effect depends on the legal environment and the actual ownership proportion.

2.5.2.3. Board Characteristics

Board characteristics directly affect monitoring effectiveness and the relevance of AI. An optimal board size helps balance monitoring and coordination, reduces earnings management, and enhances financial reporting quality, whereas excessively large boards may reduce effectiveness.

Higher board meeting frequency reflects more proactive monitoring and is often associated with greater transparency and higher AI relevance, especially

during periods of uncertainty. However, these effects are conditional on institutional settings, ownership structure, and firm-specific characteristics.

2.5.2.4. Audit Characteristics

Audit characteristics directly influence the reliability and relevance of AI. High audit quality (particularly Big4 auditors) helps constrain earnings management and increases the extent to which AI is reflected in the market, although the effect depends on institutional context and internal controls.

Shorter audit lag improves timeliness, thereby enhancing stock price responsiveness to accounting information.

2.5.2.5. Stock trading characteristics

Stock trading characteristics directly affect the extent and speed at which AI is incorporated into stock prices. High liquidity and trading frequency enable faster information absorption, reduce information asymmetry, and enhance the relevance of AI. However, the magnitude of this effect depends on information transparency, investor structure, and overall market conditions.

2.6. RESEARCH GAPS

A synthesis of domestic and international studies shows that the relevance of AI in financial statements has been examined from multiple perspectives, with diverse valuation models and empirical approaches. However, a systematic review of the literature reveals several important research gaps, not only in terms of research scope and context but also in analytical approaches and methodologies, which warrant further investigation.

First, gaps related to research scope and context.

Second, gaps in the analytical approach to examining determinants of AI relevance.

Third, gaps in assessing the relative contribution of accounting information components within valuation models.

CHAPTER 3

RESEARCH MODEL AND METHODOLOGY

3.1. THE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

3.1.1. Measurement and evaluation of the relevance of accounting information in financial statements

This dissertation employs a quantitative research approach based on stock price valuation models to measure the relevance of AI in the FS of listed non-financial firms in Vietnam. This approach is consistent with both theoretical foundations and international research practices, allowing for the quantification of the extent to which accounting indicators such as earnings, book value, and cash flows are reflected in stock prices. It also ensures objectivity and comparability across industries, years, and different economic periods.

An extended stock valuation model based on Ohlson (1995) is applied, incorporating cash flow from operations per share (CFOPS) to enhance the explanatory power for stock price variation and the reliability of the AI relevance measure. The stock price observed three months after the fiscal year-end is used to ensure that the market has sufficient time to absorb the disclosed information.

The coefficient of determination (R^2) and adjusted R^2 are employed as measures of AI relevance. R^2 captures the overall explanatory power for stock price variation, while adjusted R^2 is used for comparisons across industries and time periods, ensuring objectivity and reliability. This approach also provides a foundation for analyzing the relative contribution of each accounting component within the valuation model.

3.1.2. Analysis of the relative contribution of accounting indicators to stock prices based on Shapley value theory

The dissertation combines R^2 with Shapley value decomposition to both measure the overall explanatory power of AI and identify the relative contributions of EPS, BVPS, and CFOPS to stock prices. The Shapley value approach, grounded in cooperative game theory, allocates R^2 based on the average marginal contribution of each indicator, thereby addressing biases arising from multicollinearity and variable ordering in the model. This method clarifies which accounting indicators play a dominant role in firm valuation.

3.1.3. Analysis of the relevance of accounting information in financial statements by industry, time, and economic periods

The study evaluates the relevance of AI in the FS of listed NFFs in Vietnam along three dimensions: industry, time, and economic periods. The stock valuation model is estimated separately by industry, by year, and by economic period, with the average adjusted R^2 used as a summary indicator to compare the extent to which AI is reflected in stock prices.

Industry-level analysis helps identify differences based on financial–accounting characteristics and information transparency; time-series analysis tracks trends in AI relevance over the period 2014–2024; and economic period analysis compares pre-, during-, and post-COVID-19 phases to assess the impact of macroeconomic shocks. Analysis of variance (ANOVA) is additionally employed to test the statistical significance of observed differences.

The combination of descriptive indicators and statistical testing provides a robust empirical foundation for identifying variations in the extent to which accounting information is reflected in the Vietnamese stock market across industries, time, and economic contexts.

3.2. RESEARCH MODEL ON THE DETERMINANTS OF THE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

3.2.1. Research hypotheses

Hypothesis H1: Firm size has a positive impact on the relevance of AI in FS.

Hypothesis H2: Financial leverage has a positive impact on the relevance of AI in FS.

Hypothesis H3: Growth rate has a negative impact on the relevance of AI in FS.

Hypothesis H4: Profitability has a positive impact on the relevance of AI in FS.

Hypothesis H5: State ownership has a negative impact on the relevance of AI in FS.

Hypothesis H6: Foreign ownership has a positive impact on the relevance of AI in FS.

Hypothesis H7: Board size has a positive impact on the relevance of AI in FS.

Hypothesis H8: Board meeting frequency has a positive impact on the relevance of AI in FS.

Hypothesis H9: Audit quality has a positive impact on the relevance of AI in FS.

Hypothesis H10: Audit lag has a negative impact on the relevance of AI in FS.

Hypothesis H11: Stock liquidity has a positive impact on the relevance of AI in FS.

Hypothesis H12: Stock trading frequency has a positive impact on the relevance of AI in FS.

3.2.2. Regression model and variables

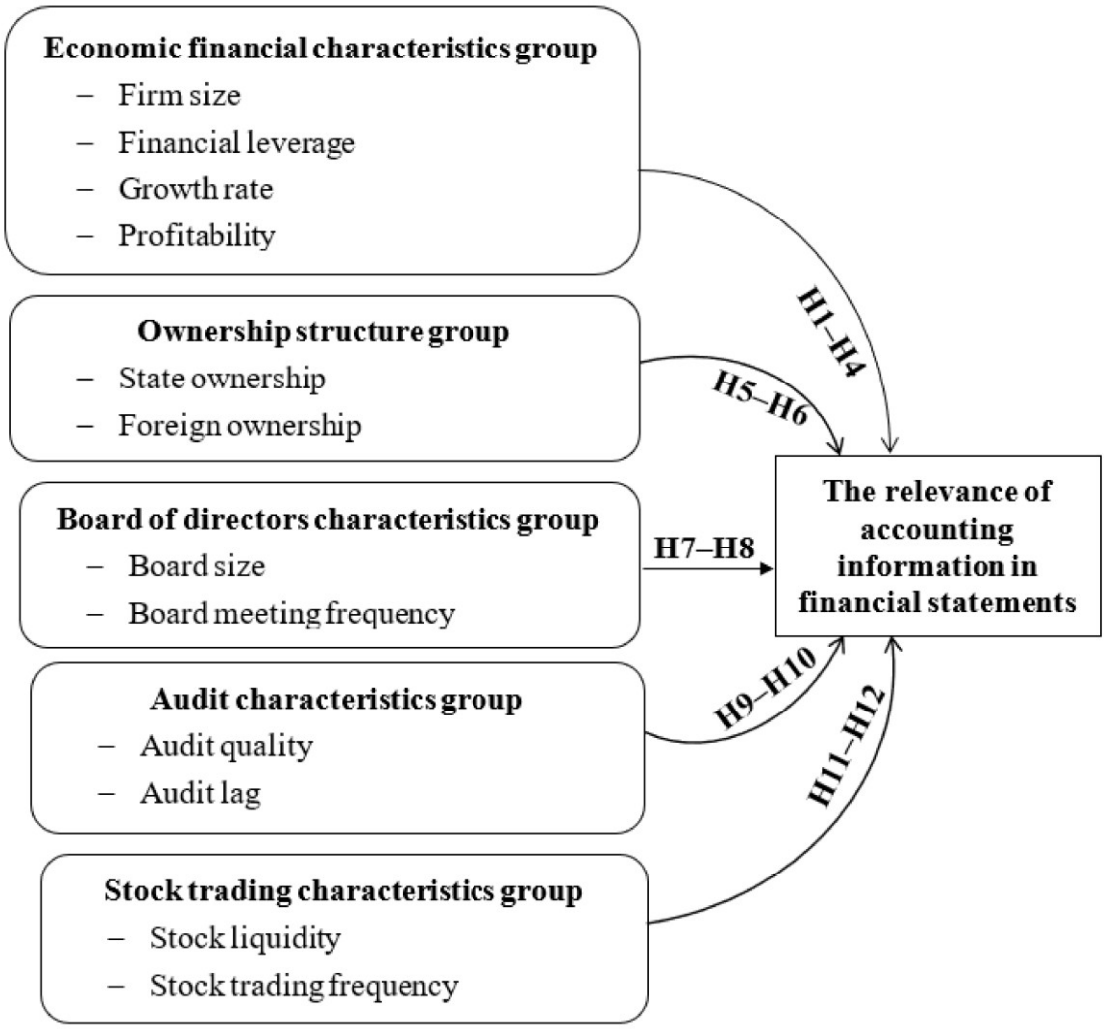

Figure 3.1. Proposed research model

Source: Proposed by the author

3.2.3. Estimation methods and model testing

This dissertation employs panel data regression to test the research hypotheses, exploiting both cross-sectional (firm-level) and time-series dimensions. This approach increases sample size, reduces estimation errors, and enables a comprehensive analysis of the relationship between determinants and the relevance of AI in FS.

Three main model specifications are considered: Pooled OLS, Fixed Effects Model (FEM), and Random Effects Model (REM), with the choice between FEM and REM determined by the Hausman test. Diagnostic tests, including multicollinearity (Variance Inflation Factor – VIF), heteroskedasticity (White/Wald tests), and autocorrelation (Wooldridge test), are conducted. Where necessary, Generalized Least Squares (GLS) or firm-clustered robust standard errors are applied.

The explanatory power of the model is assessed using R^2, while the overall model fit is evaluated through the F-test. The statistical significance of individual variables is examined at the 1%, 5%, and 10% significance levels. This procedure ensures that the regression models are estimated objectively and reliably, providing a solid foundation for the analysis in Chapter 4.

3.3. DATA AND DATA PROCESSING

3.3.1. Research data

The dissertation utilizes quantitative secondary data obtained from audited financial statements, annual reports, corporate governance reports, and publicly available financial databases of listed non-financial firms on HOSE and HNX during the period 2014–2024. The main data groups include accounting information indicators, stock trading data, corporate governance characteristics, ownership structure, and audit characteristics, providing a comprehensive reflection of firm performance, financial structure, liquidity, and governance.

Data are collected through a combination of automated extraction from reputable databases and manual cross-checking with financial statements and corporate reports, ensuring completeness, accuracy, and comparability over time.

The research sample is selected based on the following criteria: firms continuously listed during 2014–2024; exclusion of specific industries (Banking, Insurance, Financial Services, and Oil & Gas); adoption of a calendar fiscal

year; and availability of complete data for all research variables. These criteria ensure the stability and reliability of the quantitative analysis.

3.3.2. Sample characteristics

The research sample consists of 390 listed firms on HOSE and HNX during the period 2014–2024, corresponding to 4,290 firm-year observations. Firms are classified according to the FiinGroup industry classification system (referencing ICB/GICS), comprising eight sectors: Information Technology, Industrials, Consumer Services, Healthcare, Consumer Goods, Basic Materials, Real Estate, and Utilities. Banking, Insurance, and other specific industries are excluded to ensure homogeneity and reliability.

The sample is relatively evenly distributed across exchanges (HOSE: 53.6%, HNX: 46.4%) and reasonably across economic periods (pre-COVID-19: 54.5%, during COVID-19: 18.2%, post-COVID-19: 27.3%). This classification captures differences across industries, temporal dynamics, and the impact of economic phases, thereby providing a representative and stable basis for quantitative, regression, and hypothesis testing analyses.

3.3.3. Data processing methods

To ensure the reliability, consistency, and suitability of the dataset for quantitative analysis prior to regression estimation, the study implements a data processing and standardization procedure consisting of the following steps:

(1) Data standardization and coding

(2) Treatment of outliers and missing data

(3) Data organization and processing software

CHAPTER 4

EMPIRICAL RESULTS AND DISCUSSION

4.1. RESEARCH CONTEXT

4.1.1. The Vietnamese stock market

The Vietnamese stock market (VSM) plays a crucial role in mobilizing medium- and long-term capital, as well as in pricing and allocating resources within the economy. Although it was established later than those in developed markets, the VSM has experienced rapid growth, reflecting the transition toward a market-oriented economy and the expansion needs of firms. An overview of the Vietnamese stock market is examined through three main aspects:

(i) The history of market establishment and organizational structure

(ii) The process of market expansion and level of integration

(iii) The specific characteristics of the VSM and their implications for studying and measuring the relevance of AI.

4.1.2. Research period classification based on COVID-19

The period 2014–2024 is selected for this study as it covers a relatively complete development cycle of the Vietnamese stock market, from stable growth, through the shock of the COVID-19 pandemic, to recovery and post-crisis adjustment. The dissertation classifies the research periods as follows:

- Pre-COVID-19 (2014–2019)

- During COVID-19 (2020–2021)

- Post-COVID-19 (2022–2024)

4.2. DESCRIPTIVE STATISTICS

The descriptive statistics indicate that the research sample exhibits considerable variation in firm size, operating performance, ownership structure, board characteristics, audit quality, and stock trading activity.

4.3. EMPIRICAL RESULTS ON THE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

4.3.1. Results of measuring and evaluating the relevance of accounting information in financial statements

(i) Overall regression

The regression results confirm that all three accounting indicators (EPS, BVPS, CFOPS) have statistically significant relationships with stock prices, thereby providing empirical evidence for the existence of the relevance of AI in the research sample.

(ii) Regression by year and by industry

The regression results reveal significant differences across industries and over time.

4.3.2. Results of the analysis of the relative contribution of accounting indicators to stock prices based on Shapley value theory

- **EPS** is the dominant factor, reflecting the firm's expected earnings and risk (62.80%).

- **BVPS** plays a complementary role, providing information on underlying value and asset structure (31.53%).

- **CFOPS** serves a supporting role, enhancing the reliability and stability of AI in financial statements (5.67%).

4.3.3. Results of the analysis of the relevance of accounting information in financial statements by industry, time, and economic periods

(i) Industry analysis

The analysis shows that the relevance of AI varies significantly across industries (adjusted R^2 ranging from 0.35 to 0.68). Real Estate and Consumer Services exhibit lower levels, while sectors such as Healthcare, Information Technology, Industrials, Basic Materials, Consumer Goods, and Utilities show higher levels. ANOVA confirms statistically significant differences, indicating that AI better reflects stock prices in industries with stable cash flows and more observable assets.

(ii) Time-series analysis

The results indicate that the relevance of AI fluctuates over time (2014–2024). R^2 is high during 2014–2016, declines notably in 2017–2019 due to the increasing role of non-accounting factors, remains relatively stable during the COVID-19 period (2020–2021), and gradually recovers afterward (2022–2024). This trend confirms that AI remains an important source of information but is sensitive to market conditions and changes in the information environment.

(iii) Analysis by economic periods (pre-, during-, and post-COVID-19)

A three-group ANOVA test shows statistically significant differences in AI relevance ($F = 163.21$; $p < 0.001$).

(iv) Interaction analysis between industry and economic periods

A two-way ANOVA indicates a significant interaction effect ($F = 332.69$; $p < 0.001$).

4.4. EMPIRICAL RESULTS ON THE DETERMINANTS OF THE RELEVANCE OF ACCOUNTING INFORMATION IN FINANCIAL STATEMENTS

4.4.1. Correlation analysis and diagnostic testing of regression model assumptions

The diagnostic tests indicate that the dataset is suitable for estimation using panel data regression models. Although heteroskedasticity and autocorrelation are present, these issues do not bias the estimated coefficients but may affect estimation efficiency. Therefore, the study estimates Pooled OLS, Fixed Effects Model (FEM), and Random Effects Model (REM), selects the appropriate model based on the Hausman test, and applies Generalized Least Squares (GLS) as a supplementary estimation method to address model deficiencies and ensure the reliability of the results.

4.4.2. Regression results of the research model

The regression results indicate that GLS is the most appropriate model for analyzing the determinants of the relevance of AI, as it effectively addresses both heteroskedasticity and autocorrelation.

According to the GLS results, firm size has a negative effect, while financial leverage, profitability, state ownership, stock liquidity, and stock trading frequency have positive effects on the relevance of AI. In contrast, growth rate, foreign ownership, and audit characteristics are not statistically significant; board meeting frequency exhibits a negative effect.

Overall, the findings emphasize the importance of financial characteristics, ownership structure, and market trading activity in enhancing the extent to which AI is reflected in stock prices.

4.4.3. Discussion of results and hypothesis testing

(i) Economic and financial characteristics

(ii) Ownership structure

(iii) Board characteristics

(iv) Audit characteristics

(v) Stock trading characteristics

(vi) Summary of hypothesis testing

Based on the regression results and detailed discussion, the study finds that among the 12 proposed hypotheses, three are fully supported: financial leverage (LEV – H2), profitability (ROA – H4), and stock trading frequency (TURN – H12).

4.4.4. Robustness analysis of the research models

The robustness analysis indicates that the results are stable and reliable. For the stock valuation model, EPS and BVPS consistently exhibit positive and highly significant effects under both level prices and log-transformed prices; R^2 remains stable at around 50%, confirming the robustness and suitability of the model for measuring AI relevance.

For the determinants model, the results are consistent across FEM, REM, and GLS estimations. The Hausman test supports the FEM specification, while GLS effectively addresses heteroskedasticity and autocorrelation without altering the main conclusions.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

This study evaluates the extent to which AI in FS is reflected in stock prices and examines its determinants in listed non-financial firms on the Vietnamese stock market—an emerging market. The results indicate that AI is reflected in market value to a considerable but not high extent, with EPS playing a central role, while BVPS and CFOPS serve complementary roles, reflecting a "earnings-driven valuation" pattern.

The relevance of AI varies across industries, over time, and across economic periods, declining during 2017–2019 and the COVID-19 pandemic, before recovering thereafter. The Information Technology and Healthcare sectors maintain relatively stable levels of value relevance, whereas Real Estate and Consumer Services exhibit lower levels, influenced by cyclicality and speculative activities.

Key determinants include firm size (negative effect), financial leverage and profitability (positive effects), state ownership (enhancing transparency), and stock trading frequency (positive effect). Other factors such as audit quality, board meeting frequency, and stock liquidity show mixed effects. Robustness analysis confirms the stability of the results, highlighting the empirical value of AI and emphasizing the importance of information quality, transparency, and capital market efficiency in the context of emerging markets and fluctuating economic conditions.

5.2. RECOMMENDATIONS

(i) Enhance the verifiability of earnings information by strengthening its linkage with cash flows

(ii) Adjust the content and disclosure practices of AI to align with industry characteristics and business cycles

(iii) Mitigate earnings management and improve the reliability of AI

(iv) Improve corporate governance mechanisms to enhance monitoring effectiveness and information transparency

(v) Improve the quality of disclosures related to financial risk and cash flows

(vi) Strengthen the monitoring role of ownership structure

(vii) Enhance market liquidity to improve the transmission mechanism of AI into stock prices

5.3. CONTRIBUTIONS OF THE DISSERTATION

- Theoretical contributions

- Methodological contributions

- Practical and policy contributions

- Academic contributions in the context of Vietnam

5.4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Despite the contributions achieved, the dissertation still has certain limitations. These limitations mainly stem from the research scope, model selection, and data constraints, while also suggesting directions for future research to extend and deepen the findings.

SCIENTIFIC PUBLICATION

[1]. Tran Thi Hang and Tran Manh Dung (2024), *"The relevance of accounting information: Empirical evidence from the Vietnamese stock market."* Journal of Economics & Development, No. 325, pp. 42–51, July 2024.

[2]. Tran Thi Hang (2025), *"Firm-specific characteristics and the relevance of accounting information in Vietnam."* National Conference on Accounting and Auditing (VCAA 2025), July 2025, Nha Trang University.

[3]. Tran Thi Hang (2025), *"The value relevance of earnings, book value, and cash flows: Empirical evidence from Vietnam."* Journal of Economics, Law and Banking, No. 283, pp. 65–76, October 2025.

[4]. Tran Thi Hang, Nguyen Thi Xuan Hong, and Tran Manh Dung (2025), *"The impact of profitability on the relevance of accounting information in Vietnam."* Online Economic–Financial Research, Journal of Economics and Finance, No. 1104, November 2025.

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