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Determinants of The Level of Information Distribution on Financial Statement

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Abstract

Purpose: Interim financial statements provide timely and qualified financial information for users. Hence, the importance of the interim financial statement is increasingly noticeable among information users. This research studies determinants of interim financial statements disclosure in Vietnamese-listed enterprises. **Research design, data and methodology:** The sample is 55 enterprises listed in VNIndex and is in the list of Forbes top 100 largest companies in 2020. Data was collected from interim financial statements for four years, from 2018 to 2021. GMM is used in this study. **Results:** The regression analysis results show that reporting lag has a positive impact on the level of information distribution of interim financial reporting; companies audited by BIG4 tend to have a higher level of information disclosure. The higher the return on assets, the more disclosure is made; the larger the company size, the greater the disclosure level. Owner equity structure and Leverage do not affect the disclosure level of interim financial reporting. **Conclusions:** The information disclosure level on the interim financial statement should be improved to increase transparency. In addition to continuing to encourage these companies to provide more information voluntarily, government authorities should have effective regulations to require sufficient information disclosure from other listed companies.

Keywords: Information Distribution; Financial Report, Financial Statement, Interim Report, Interim Financial Statement, Disclosure

JEL Classification Code: G30, M10, M41.

1. Introduction

Financial reporting is a crucial element in the modern business environment. The publication of financial reports is essential to help stakeholders understand the financial performance of a company, including its strengths and weaknesses, opportunities and risks (Cazier & Pfeiffer, 2016, 2017; Huddart et al., 2007; Lim et al., 2018; Loughran & Mcdonald, 2014). One of the most significant roles of financial reporting is to provide transparency and accountability to investors, lenders, and other interested parties (Loughran & Mcdonald, 2014). Financial reports help these stakeholders assess the company's financial health and make informed investment decisions (Cazier & Pfeiffer, 2016, 2017; Huddart et al., 2007; Lim et al., 2018). They can use the reports to evaluate the company's profitability, liquidity, and financial stability.

Additionally, financial reports can help identify potential risks and opportunities, which can help stakeholders anticipate future performance. Financial reporting also plays

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a vital role in regulatory compliance. Publicly traded companies are required to publish financial reports by law, and failure to do so can result in serious consequences, including fines, legal action, and damage to the company's reputation. Regulatory bodies can also use financial reports to ensure companies comply with financial and accounting standards and regulations (Li, 2008; Lim et al., 2018; You & Zhang, 2008).

In conclusion, financial reporting is a critical component of modern business. It provides transparency, accountability, and regulatory compliance and helps stakeholders make informed decisions about a company's financial health. Without financial reporting, investors and other interested parties would not have access to the necessary information to make informed decisions, which could have serious consequences for companies and the wider economy.

In Vietnam, the interim financial statement disclosure of listed enterprises listed on the Vietnamese stock market is regulated by Accounting Law, Vietnamese Accounting Standards, Law on Securities, and prevailing guiding circulars such as Circular No. 155/2015/TT-BTC for the period from 2015 to the end of 2020 and Circular No. 96/2020/TT-BTC for the period from January 1st, 2021. Despite the importance of financial reporting in the business world, there is a lack of research on the factors influencing financial reporting in Vietnam. Vietnam's unique economic and cultural contexts may affect financial reporting practices differently than other countries. Despite the significance of these contextual factors, there is limited research on their influence on financial reporting practices in Vietnam. As a result, there is a need for further research to understand the factors that affect financial reporting practices in Vietnam and how these factors can be addressed to improve the quality of financial reporting in the country.

Research shows that audit teams from well-known companies tend to demand higher disclosure standards. Therefore, businesses need to comply with higher levels of information distribution (Wallace & Naser, 1995; Wallace et al., 1990). Some studies suggest that the size of a company can affect the level of information distribution in reports (Hassan et al., 2006). The larger the company, the higher the level of disclosure. Some studies also consider profitability, as higher profits lead businesses to provide more information (Skinner, 1994). Ownership structure impacts enterprises' interim financial statement disclosure level (Marston & Polei, 2004). Some studies suggest that delayed reporting is the reason for reduced levels of information disclosure (Chambers & Penman, 1984). Previous research has focused on one major factor affecting companies' information distribution levels. Therefore, a broader investigation is needed to simultaneously consider multiple factors that can predict the level of information distribution.

The more information disclosed in the interim statement, the more transparent the market is. Hence, this study shall assess the disclosure level of financial statements and investigate determinants of interim financial report disclosure in a listed company in Vietnam to provide some suggestions for disclosure improvement. The research will contribute by identifying factors affecting companies' information disclosure levels. All factors that can predict the information disclosure level will be presented in this study. The research will not be limited to a few factors like previous studies but will take a broader approach by simultaneously considering multiple factors to predict businesses' information disclosure practices.

2. Literature Review

2.1. Disclosure of Interim Financial Statements of Listed Companies

One of the financial statements most important roles is providing useful and timely financial information from companies to external users. To achieve this goal, the quality of financial statements is necessarily associated with their importance and usefulness to the information users. In other words, the information disclosed in the interim financial statements must meet the needs of investors and comply with accounting regulations. Therefore, the information disclosure level is one way to evaluate financial statements' usefulness. Although there are many studies on the quality of information published in the annual financial statements, the disclosure of interim financial statements has not received much attention from academia. Studies related to disclosing information on interim financial statements have been developed in two directions. Studies conducted in the early 1990s tend to observe and study published information and the number of listed companies that publish interim financial statements in some developed countries. Later researches tend to focus on the level of disclosure in the interim financial statements of different enterprises in many countries, including the UK, Italy, Malaysia, etc., and developing countries such as Poland and Jordan. Because results from the related research are quite different, this study investigated determinants of information disclosure level in the interim financial statements in listed companies in Vietnam.

2.2. Determinants of Interim Financial Statement Distribution of Listed Companies

Based on fundamental economic theories such as agency theory, signal theory, asymmetric information, and previous research, this study investigated factors that affected the interim financial statement of listed companies by interviewing specialists, then used the quantitative model to test.

2.2.1. Firm Size

Firm size is an important determinant of information distribution practices and is used as a control variable in the empirical literature on disclosure (Hassan et al., 2006). Most studies confirm a positive relationship between firm size and disclosure level. These researches offered several explanations for the positive effect of firm size on disclosure. It has been suggested that firm size is a comprehensive variable representing competitive advantage, information production, and political costs (Abd-Elsalam & Weetman, 2003). A well – organization's information system is expensive, so larger enterprises may be abler to cover these costs. In addition, the process of recording information involves fixed costs such as software and human resources. The proportion of these fixed costs should be more economical for larger businesses.

On the other hand, listed companies receive a lot of attention from large information users. Government agencies more closely monitor them, so they tend to publish more information to reduce criticism from the public or government inspection. Therefore, the research hypothesis is stated as follows:

H1: The bigger firm is more likely to disclose more information in the interim financial statements.

2.2.2. Audit Firm

The interim financial statements may not be audited, but they are subject to review by auditors. Regulations on the interim financial report's auditing process/ reviewing process vary among countries. Raedy and Helms (2002) suggest that independent auditors can help provide reasonable and reliable information, enhancing the quality of interim financial statements.

Financial statements' quality is impacted by three factors: measurement and reporting standards, the independent auditor's efforts to ensure that the financial statements comply with those standards, and the effort of the firm to prepare financial statements (Wallece & Cook, 1990). Williams (2008) agreed that the honesty and professionalism of independent auditors influence the quality of financial statements disclosure.

Therefore, the research hypothesis is stated as follows:

H2: Big4 audit firms have a higher level of information disclosure than non-Big4 firms.

2.2.3. Owner Equity Structure

Ownership structure impacts enterprises' interim financial statement disclosure level (Marston & Polei, 2004). Conflicts between management and shareholders' interest may require additional costs to monitor the company's operation. In particular, firms that do not have a small group of bid owners tend to make decisions contrary to shareholders' interests (Białek-Jaworska & Matusiewicz, 2015). Larger firms tend to incur higher agency costs. However, the more shareholders a company has, the larger the asymmetric information gap between controlling and minority shareholders. Therefore, these companies should disclose more information to reduce information asymmetry.

The research hypothesis is stated as follows:

H3: The company with a lower level of owner equity concentration tends to disclose more information on financial statements.

2.2.4. Financial Leverage

Leverage is a factor mentioned in a large number of related studies. The information disclosed in the financial statements can help solve the information asymmetry problem between shareholders, managers, and creditors. Firms with external financing have more motivation to disclose information to meet their creditor needs. Such an approach reduces the cost of monitoring, then would decrease financing costs for the company. Additionally, transparency of financial information will help businesses easily access low-interest loans because creditors have less appraisal costs and face less risk from loans.

Therefore, the research hypothesis is as follows:

H4: Companies with high financial leverage tend to disclose more information.

2.2.5. Reporting Lag

Reporting lag is from the end of the reporting period to the disclosure date on the enterprise's website or submission date to the SSC. Reporting lag is important because it affects the timeliness of interim financial reporting disclosure and influences investors' decisions. Chambers and Penman (1984) assessed the relationship between timeliness and disclosure level and concluded that a business tends to take longer to gather sufficient information before disclosing it to the public.

Hence, the research hypothesis is:

H5: Information disclosure level on the interim financial report has a positive impact on the reporting lag

2.2.6. Profitability

Signal theory suggests that managers may disclose bad news promptly to reduce the risk of liability and loss of reputation (Skinner, 1994). Empirical studies have produced conflicting results; for example, Abd-Elsalam and Weetman (2003) found a negative but insignificant relationship between profitability and mandatory disclosure. However, some other research has shown a positive relationship between profitability and the disclosure level. After interviewing with experts, the author found that investors who are more interested in profit data in the current context of Vietnam's stock market, then the research hypothesis is stated as follows:

H6: The profitability has a positive relationship with the information disclosure level

Profit is measured as the total return after tax to the book value of equity (ROE).

3. Method

3.1. Research Model

The research model refers from the previous study: Hassan et al. (2006); Marston and Polei (2004). From the above literature review and hypothesis, the following model is applied:

SDIj = β0+ β1SIZEj + β2AUDITj + β3EQUIj+ β4LEVj+ β5DAYSj + β6PROFj µit

In which:

SDIj (j=1,…,55): Disclosure level of the observed interim financial reporting

SIZEit, AUDITit, EQUIit, LEVit, LIQit, LAGit: the independent variables

The variables are described in Table 1.

Dependent variable: SDI-Segment Disclosure Index. The formula for measuring the level of SID provided to an enterprise is as follows:

$$I_j = \frac{\sum_{i=1}^{nj} d_{ij}}{n_j}$$

Ij: Information disclosure index of enterprises, 0≤ Ij ≤1.
dij: Take the value of 1 if information i is published, and get 0 if information i is not published.
nj: Number of items of information that enterprise j can disclose, n ≤ 6.

The number of departmental reporting metrics to be read in detail in each SID report. The author reads and scans to get the number of disclosure indicators on each report in each year for each company.

Table 1: The variables

Code	Content	Measured
SDI	Disclosure level of interim financial reporting	$I_j = \frac{\sum_{i=1}^{nj} d_{ij}}{n_j}$
SIZE	SIZE FIRM	Log (total asset)
AUDIT	Audited company	It is a dummy variable. Get value one if a BIG 4 firm audits the business, otherwise get value 0
EQUI	Owner Equity structure	% of the five biggest owner
LEV	Financial Leverage	= total long-term asset/ Total owner equity
DAYS	Reporting lag	The number of days from the end of reporting period to the disclosure date
ROA	Profitability	= Profit after tax/ Total assets

3.2. Sample and Data Collection

The sample with 55 enterprises was listed in HOSE and HNX and is in the list of "Forbes' top 100 largest companies in 2020". Data was collected from interim financial statements for four years, from 2018 to 2021. Data is collected manually based on reading to calculate indicators in the research model. Collected data will be encrypted and put into STATA software for processing. Initially, the variables will be descriptive statistics to evaluate the overview of the data obtained. The results of descriptive statistics show that the mean SDI is 8.09, in which the largest is 11, and the smallest is 0. The mean EQUI is 0.61, the largest is 1, and the smallest is 0.1. The average DAYS are 76.75 days, the maximum is 120 days, and the smallest is 0 days. The average LEV was 30.55%, the maximum was 33.68%, and the smallest was 25.99%. The results of the collected variables are presented in Table 2.

Table 2: Descriptive variables

Variable	Mean	Sd	Min	Max
SDI	8.0952	1.6856	0	11
EQUI	0.6186	0.2632	0.1	1
DAYS	76.7560	18.7417	0	120
SIZE	30.5543	1.1535	25.9944	33.6814
LEV	1.8185	3.4136	0.0957	28.3580

3.2. Data Analysis

Collected data will be processed by STATA software. The author chooses a linear regression model and estimates regression parameters with the support of STATA software to study the correlation between variables and analyze the determinants of interim financial statement disclosure of enterprises listed in Vietnam. Specifically, the author conducts a linear regression analysis to evaluate the factors affecting the level of partial disclosure in the period from 2018 to 2021.

The Fixed effect model (FEM) and the Random effect model (REM) are popular models used in panel data analysis. If the FEM or REM model has problems, the author will proceed to overcome them by the different GMM estimation methods (Difference Generalized method of moments - GMM) of Arellano - Bond (1991). GMM allows overcoming violations that lead to autocorrelation, heteroskedasticity, and endogenous, so the estimation results will not be wrong, stable, and most efficient. The Arellano - Bond method can also overcome the fixed effect of the model's error (due to the characteristics, the selected company variables for the study do not change over time, and geographical location can correlate with the explanatory variables in the model)

The Hansen test determines the appropriateness of the instrumental variables after the GMM estimate, a test of over-identifying restrictions. Hansen's test with the hypothesis H0 is an exogenous instrumental variable. It is not correlated with the variance of the model's error, so the larger the P-value of the Hansen statistic, the better. The Arellano - Bond test proposed by Arellano – Bond tests the error autocorrelation property of the GMM model, the first difference form. Therefore, the investigation difference series implicitly has first-order correlation, AR(1), and test results are ignored. The second-order correlation, AR(2), is tested on the difference series of the error to detect the autocorrelation of the first-order error, AR(1). Hypothesis H0 of the Arellano-Bond test is uncorrelated and applies to differential residuals.

4. Results

The regression analysis will include the variables with two original FEM and REM models. The Hausman test has shown that the FEM model is suitable for the research data (p-value = 0.000). However, the model is endogenous and will be corrected through the GMM model—the detail in Table 3.

Table 3: The result of the regression

	(1)	**(2)**	**(3)**	**(4)**
SDI	**OLS**	**FEM**	**REM**	**GMM**
SDI_{t-1}				0.233***
				(0.0257)
DAYS	0.063***	0.074***	0.074***	0.085***
	(0.0052)	(0.0031)	(0.0031)	(0.0027)
Audit	0.855***	-0.762**	-0.412	2.045***
	(0.172)	(0.359)	(0.304)	(0.382)
EQU	26.55	-19.37	-9.720	-139.3
	(34.33)	(21.03)	(21.00)	(325.0)
LEV	27.22	-17.75	-8.551	-136.3
	(34.34)	(21.00)	(20.97)	(325.2)
ROA	20.07***	5.127*	5.704**	76.86***
	(3.807)	(2.828)	(2.828)	(8.439)
SIZE	1.002***	-0.0296	0.431***	0.477**
	(0.0658)	(0.209)	(0.148)	(0.242)
Constant	-49.37	27.88	4.306	126.7
	(34.43)	(22.36)	(21.80)	(327.0)
Observations	872	872	872	818
R-squared	0.374	0.421		
Number of i		55	55	55
Hausman test		0.0013		
Heteroskedasticity		0.0000		
Autocorrelation		0.7374		
AR(1)				0.000
AR(2)				0.369
Hansen test				0.389

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

As can be seen, LEV and EQUI do not have an effect on the index. In other words, the financial leverage ratio and the equity concentration do not affect the information distribution level.

AUDIT indicates that the company's interim financial statements audited/reviewed by big4 audit firms tend to disclose more information. This result is consistent with the results of previous studies. Companies that use review services from big4 firms tend to disclose more information because their compliance requirements are stricter. Although among the observed interim financial statements, only interim financial statements for the half-year period were reviewed by audit firms, the results indicate this positive effect for listed companies using services of large auditing firms has higher compliance with regulatory requirements than the rest of the companies.

PROF (profitability) positively affects the total score (positive beta and p-value less than 0.05). This result is consistent with agency theory and signal theory. When enterprises have a high level of profitability, they tend to disclose more information to shareholders to demonstrate good results in the enterprise's business activities. Hence, business managers are also likely to enjoy more benefits.

The variable SIZE (firm size) is also observed to affect the disclosure level positively. The larger the enterprise, the more information resources are available to serve internal management and reporting and the tighter the information processing process. The bigger firms may have an advantage over others in collecting, processing, and publishing information to the public.

The summarised results are presented in Table 4.

Table 4: The statement of hypotheses

Hypotheses	Content	Conclusion
H1	SIZE -> SDI	Accepted
H2	AUDIT -> SDI	Accepted
H3	EQU -> SDI	Accepted
H4	LEV -> SDI	Rejected
H5	DAYS -> SDI	Accepted
H6	ROA -> SDI	Accepted

5. Conclusion and Implications

5.1. Conclusion

In general, the extent to which companies disclose information in financial reports depends on factors such as their size, the auditing firm, the proportion of equity ownership, the number of days they file late, and the rate of return.

The study introduced the theory related to the level of information distribution in the financial statements of enterprises. From the theory, the authors have built a research model and shown that reporting lag has a positive impact on the level of information distribution of interim financial reporting; companies audited by BIG4 tend to have a higher level of information distribution. The higher the ROA, the more disclosure is made; the larger the company size, the greater the disclosure level. Owner equity structure and Leverage do not affect the disclosure level of interim financial reporting.

5.2. Implications

The information disclosure level on the interim financial statement should be improved to increase transparency and effective operation of the stock market. According to the above research results, audit firms play an important role in the level of information disclosure of listed companies, so it is necessary to enhance the quality of audit firms as well as the quality of accounting work in each enterprise.

Large-scale and high-profitability enterprises are expected to provide more information than the rest. Therefore, in addition to continuing to encourage these subjects to provide more information voluntarily, government authorities should have powerful regulations to require sufficient information distribution from other listed companies.

6. Limitation and Further Research

The study has identified determinants of information disclosure level on the interim financial statement of the observed listed company, but there are still some limitations. First, a wide range of listed companies from different industries and different sized was observed. Secondly, this study only focuses on the internal factors of enterprises without considering external factors and management factors that can affect the level of information disclosure of enterprises.

From the above limitations, some recommendations for further studies on the level of disclosure would be recommended. First, subsequent studies could focus on the interim financial statement disclosure level from medium-listed and big-listed firms. There is a difference between disclosure levels due to firm size, but whether other factors effect on the same size scale of the listed firm? This question may reveal an interesting result. Second, future research may collect information for a wider range of time. Because the investigated period is affected by many global issues like the covid-19 pandemic and wars between Russia and Ukraine, the number of observed companies should suffer considerably. With a longer study period, a clearer picture of the information disclosure of the listed company may be drawn. Finally, other management and external factors would help measure the determinants of disclosure level more convincingly.

References

Abd-Elsalam, O. H., & Weetman, P. (2003). Introducing International Accounting Standards to an emerging capital market: relative familiarity and language effect in Egypt. *Journal of International Accounting, Auditing and Taxation*, *12*(1), 63-84.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, *58*(2), 277-297.

Biaek-Jaworska, A., & Matusiewicz, A. (2015). Determinants of the level of information disclosure in financial statements prepared following IFRS. *Accounting and Management Information Systems*, *14*(3), 453.

Cazier, R. A., & Pfeiffer, R. J. (2016). Why are 10-K Filings So Long? *Accounting Horizons*, *30*(1), 1–21. https://doi.org/10.2308/ACCH-51240

Cazier, R. A., & Pfeiffer, R. J. (2017). 10-K Disclosure Repetition and Managerial Reporting Incentives. *Journal of Financial Reporting*, *2*(1), 107–131. https://doi.org/10.2308/JFIR-51912

Chambers, A. E., & Penman, S. H. (1984). Timeliness of reporting and the stock price reaction to earnings announcements. *Journal of accounting research*, *1*(1), 21-47.

Hassan, O. A., Giorgioni, G., & Romilly, P. (2006). The extent of financial disclosure and its determinants in an emerging capital market: the case of Egypt. *International Journal of Accounting, Auditing and Performance Evaluation*, *3*(1), 41-67.

Huddart, S., Ke, B., & Shi, C. (2007). Jeopardy, non-public information, and insider trading around SEC 10-K and 10-Q filings. *Journal of Accounting and Economics*, *43*(1), 3–36. https://doi.org/10.1016/J.JACCECO.2006.06.003

Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics*, *45*(2), 221–247. https://doi.org/10.1016/J.JACCECO.2008.02.003

Lim, E. K. Y., Chalmers, K., & Hanlon, D. (2018). The influence of business strategy on annual report readability. *Journal of Accounting and Public Policy*, *37*(1), 65–81. https://doi.org/10.1016/J.JACCPUBPOL.2018.01.003

Loughran, T., & Mcdonald, B. (2014). Measuring Readability in Financial Disclosures. *The Journal of Finance*, *69*(4), 1643–1671. https://doi.org/10.1111/JOFI.12162

Marston, C., & Polei, A. (2004). Corporate reporting on the Internet by German companies. *International journal of Accounting Information systems*, *5*(3), 285-311.

Raedy, K. M., & Helms, G. L. (2002). CPA involvement with quarterly financial reporting. *Ohio CPA Journal*, *1*(1), 50-53.

Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of accounting research*, *32*(1), 38-60.

Wallace, R. S. O., & Cooke, T. E. (1990). Nonresponse bias in mail accounting surveys: a pedagogical extension. *The British Accounting Review*, *22*(3), 283-288.

Wallace, R.S.O. and Naser, K. (1995). Firm-Specific Determinants of the Comprehensiveness of Mandatory Disclosure in the Corporate Annual Reports of Firms Listed on the Stock Exchange of Hong Kong, *Journal of Accounting and Public Policy, 14* (4), 311-368

Williams, K. (2008). How useful are financial reports?. *Strategic Finance*, *1*(1), 21-23.

You, H., & Zhang, X. (2008). Financial reporting complexity and investor underreaction to 10-K information. *Review of Accounting Studies*, *14*(4), 559–586. https://doi.org/10.1007/S11142-008-9083-2