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**The Impact of Earnings Management on the Business Performance  
of the Industrial Sector Listed on Hose in Vietnam**

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**Abstract**

This study analyzes the impact of earnings management on the business performance of companies within the industrial sector in Vietnam. Data were collected from 66 firms listed on the Hochiminh city Stock Exchange (HOSE) during the period 2019–2023. Earnings management is measured based on the theoretical framework of the Jones model. The study employs multiple linear regression analysis with the support of Stata software. The research findings provide critical insights into the relationship between earnings management and business performance within this sector.

**Keywords:** Earnings management, Business performance, Industrial sector, HOSE.

**1. Introduction**

The industrial sector plays a pivotal role in Vietnam's economy, not only significantly contributing to GDP but also profoundly influencing cultural and social aspects of life. Following global trends, this sector has undergone substantial transformations and robust development over time. The COVID-19 pandemic has introduced unprecedented disruptions to the global economy, including Vietnam, particularly challenging industrial enterprises to sustain their business performance.

The industrial sector produces essential goods with stable demand in society; however, it remains heavily impacted by market fluctuations and faces uncertainties related to consumer demand, supply chains, and the business environment. In 2021, the complex developments of the COVID-19 Delta variant in Vietnam had a marked impact on enterprises, causing severe and widespread damage. Notably, 80% of enterprises experienced adverse effects on their production and distribution activities. GDP statistics recorded a sharp decline in the hospitality and food service industries by 20.21%, reducing overall GDP growth by 0.5 percentage points (as reported in the

*Vietnam Business White Paper*). It was not until the first quarter of 2022 that businesses in this sector began to recover.

In this context, earnings management has emerged as a critical tool, determining the ability to balance corporate profitability effectively. This paper seeks to illuminate the role of earnings management in ensuring business efficiency and reflecting firms' adaptability to market shocks, such as the COVID-19 pandemic. The study provides a detailed examination of the effects of earnings management during the pandemic period and proposes appropriate management solutions to support the sustainable development of industrial enterprises in the future.

The research focuses on companies listed on HOSE operating in the industrial sector in Vietnam. Financial data from these firms were analyzed for the period 2019–2023 to clarify changes and fluctuations in earnings management practices and their relationship to business performance during the pandemic. Based on the findings, the study offers strategies to enhance competitiveness and sustainability for these firms while improving the sector's resilience to unforeseeable challenges in the current economic context

## **2. Research Overview**

In recent decades, earnings management has become a topic that has attracted much attention from researchers worldwide. International studies have not only focused on identifying earnings management behavior but also on studying the factors that influence earnings management and its impact on business performance. Regarding the impact of earnings management, the study by Graham, Harvey and Rajgopal (2005) found that this behavior can help businesses improve short-term stock value but at the same time increase financial risks and damage the long-term interests of shareholders. This is consistent with the study by Roychowdhury (2006) on the tendency of businesses to implement earnings management through practical activities such as changing revenue or cutting costs to achieve short-term financial goals. In the context of the COVID-19 pandemic, recent studies have begun to focus on the unusual challenges faced by businesses and their earnings management behavior during this period. Chen et al. (2022) investigated the impact of the pandemic on earnings management behavior and found that businesses often increase earnings management to maintain financial performance and preserve investor confidence in an uncertain context. However, this study also warned that overuse of earnings management can damage corporate reputation and increase the risk of financial crisis in the long term.

Studies related to earnings management in Vietnam have received widespread attention from researchers, experts and businesses, especially in the context of economic fluctuations and the strong influence of global factors such as the COVID-19 pandemic. Many studies have delved into the analysis of earnings management in various business sectors and made important contributions to the theoretical and practical basis of earnings management in Vietnam.

Tran Van An's (2018) study focused on analyzing factors affecting earnings management of manufacturing enterprises listed on the HOSE. The author used financial indicators to measure

the level of earnings management and evaluate the impact of factors such as enterprise size, financial structure and liquidity. The research results showed that earnings management is closely related to these factors, especially enterprise size and liquidity, and affirmed the importance of optimizing these factors to improve earnings management efficiency.

Nguyen Thi Hong Minh's (2019) study focused on earnings management in service enterprises in Vietnam, especially those operating in the tourism and restaurant sectors. This study has clarified the impact of profit management strategies on business performance in the service sector. The study concluded that profit management not only helps businesses optimize profits but also helps maintain sustainable relationships with customers through flexible pricing strategies and effective cost management.

Research by Pham Thi Lan and Nguyen Duc Dung (2021). This study was conducted in the context of the COVID-19 pandemic, with the aim of assessing the impact of the economic crisis caused by the pandemic on profit management of small and medium-sized enterprises in Vietnam. The research results show that the pandemic has caused major disruptions in business operations, forcing businesses to adjust their profit management strategies to adapt to the new situation. Cash flow management strategies and cost optimization are considered key factors to help businesses overcome the crisis and maintain profits during difficult times.

Studies have explored earnings management in specific industries, helping to broaden the understanding of how businesses adapt to market fluctuations and business environment challenges. Studies have also shown that earnings management not only helps businesses maintain operations during difficult times, but is also a tool to improve competitiveness and operational efficiency. In particular, recent studies have clarified the role of earnings management in the context of the COVID-19 pandemic, emphasizing cash flow optimization and cost management as important strategies to help businesses overcome the crisis.

### **3. Theoretical Framework**

#### *3.1. Earnings Management*

Earnings management is a broad term within the field of accounting and finance. Earnings management involves the adjustment of profits to achieve predefined managerial objectives. Schipper (1998) describes it as "a deliberate intervention in the financial reporting process aimed at achieving personal goals."

It refers to actions taken by managers to influence a firm's reported financial results, creating an impression of higher revenues or lower costs. Such practices can mislead shareholders about the company's true financial position. Managers may engage in earnings management to maximize benefits from capital market transactions or reduce costs related to issuing shares, mergers, or acquisitions.

Levitt (1998) defined earnings management as a "gray area" where accounting practices are manipulated by managers, resulting in financial reports that reflect managerial preferences rather than the company's actual financial performance.

Healy and Whalen (1999) argued that earnings management occurs when managers use accounting estimates or internal transactions to influence financial reports, potentially misleading users of financial statements about the company's actual operating performance or impacting contracts based on accounting metrics (e.g., credit agreements with banks, compensation contracts between managers and the company).

Thus, earnings management directly relates to manipulating accounting figures to achieve specific objectives. It not only affects a firm's financial performance but also impacts the transparency of financial statements, investor trust, and funding decisions by financial institutions. Firms may adjust profits to meet investor expectations, maintain stable earnings, or leverage tax policies effectively.

### *3.2. Foundational Theories*

#### *3.2.1. Agency Theory*

Proposed by Ross (1973) and later developed by Jensen and Meckling (1976), Agency Theory explores the relationship between principals (owners) and agents (managers), where differing goals and motivations may lead to conflicts of interest. Based on this theory, firms with overlapping roles of CEO and Chairman of the Board may facilitate managerial earnings management, as this consolidation of power enhances managers' ability to control financial information. Conversely, factors like a larger Board size, the presence of foreign board members, frequent board meetings, and a higher proportion of independent board members are likely to effectively monitor and curb earnings management practices due to diverse perspectives and multidimensional oversight. Firms with strong governance structures are less susceptible to earnings manipulation, ensuring the transparency of financial information disclosed to the market.

#### *3.2.2. Signaling Theory*

Signaling Theory, introduced by Spence (1973), explains how parties in markets with asymmetric information communicate with one another. In the context of earnings management, this theory highlights how firms can use earnings management to send signals about their financial health, influencing investors' perceptions and behaviors. In situations where information is unevenly distributed, managers - armed with insider knowledge - can adjust earnings to signal that the firm is performing well, achieving profit targets, or possessing significant growth potential. From a signaling perspective, earnings management can serve as a strategic tool for conveying positive messages about the firm. However, overuse or misuse of this tool to send misleading or unsustainable signals can severely damage market trust, tarnish the firm's reputation, and undermine its long-term performance.

### 3.2.3. Asymmetric Information Theory

Akerlof's (1970) Asymmetric Information Theory explains that in any market where one party possesses more information than the other, information asymmetry creates opportunities for earnings management. In this scenario, managers with insider knowledge can adjust earnings before financial reports are published, while investors and shareholders lack sufficient information to accurately evaluate the firm's financial condition.

### 3.2.4. Crisis Management Theory

Crisis Management Theory emphasizes that during periods of crisis, such as the COVID-19 pandemic, firms are likely to employ earnings management to cope with declining revenues, profits, and other financial challenges. Facing significant market disruptions, firms may adjust earnings to maintain financial stability, safeguard corporate image, and attract investors in the short term.

## 4. Model Development and Research Hypotheses

### 4.1. Dependent Variable

#### Earnings management

To measure earnings management through accruals, the study employs total accruals as estimated using the three-step model of Dechow et al. (1995) and Kothari et al. (2005):

#### Determine total accruals:

$$TACC_{it} = LNST_{it} - CFO_{it}$$

Where: -TACC<sub>it</sub>: Total accruals of firm i in year t

-LNST<sub>it</sub>: Profit after tax of firm i in year t

-CFO<sub>it</sub>: Cash flow from operating activities of firm i in year t

#### Determine non-discretionary accruals:

$$NDA_{it} = \alpha_1 \frac{1}{TS_{it-1}} + \alpha_2 \frac{\Delta DTT_{it} - \Delta KPT_{it}}{TS_{it-1}} + \alpha_3 \frac{TSCD_{it}}{TS_{it-1}} + \alpha_4 ROA_{it-1}$$

Where: -NDA<sub>it</sub>: Non-adjustable accruals of company i in year t

-TS<sub>it-1</sub>: Total assets of company i in year t-1

-ΔDTT<sub>it</sub>: Difference in net revenue of company i in year t compared to year t-1

-ΔKPT<sub>it</sub>: Difference in receivables of company i in year t compared to year t-1

-TSCD<sub>it</sub>: Fixed assets of company i in year t

-ROA<sub>it-1</sub>: Return on assets in year t-1 of company i

#### Determine discretionary accruals (DA):

$$DA_{it} = \frac{TACC_{it}}{TS_{it-1}} - NDA_{it}$$

4.2. Independent variable

Return on assets (ROA) and return on equity (ROE) are two indicators that play a popular and important role in measuring financial performance based on accounting information in the world. The study will be built with 3 accounting indicators: ROA, ROE, EPS and use a market information indicator is Operating profit margin (OM) index:

*H1: Earnings management has a negative impact on future ROA*

This factor is measured by the after-tax profit over the total assets of the enterprise. Bui and Ngo (2017) found a negative impact between ROA and earnings management behavior. Based on the signaling theory and previous research results, the authors propose the hypothesis: Earnings management has a negative impact on future ROA.

*H2: Earnings management has a negative impact on future ROE*

*H3: Earnings management has a positive impact on EPS.*

*H4: Earnings management has a positive impact on future OM.*

OM represents the ratio of net profit to net revenue in the same fiscal year. This index not only shows how profits have been adjusted in the year but also shows the results of this for the following fiscal years. From the above hypotheses, the research team synthesizes the model as follows:

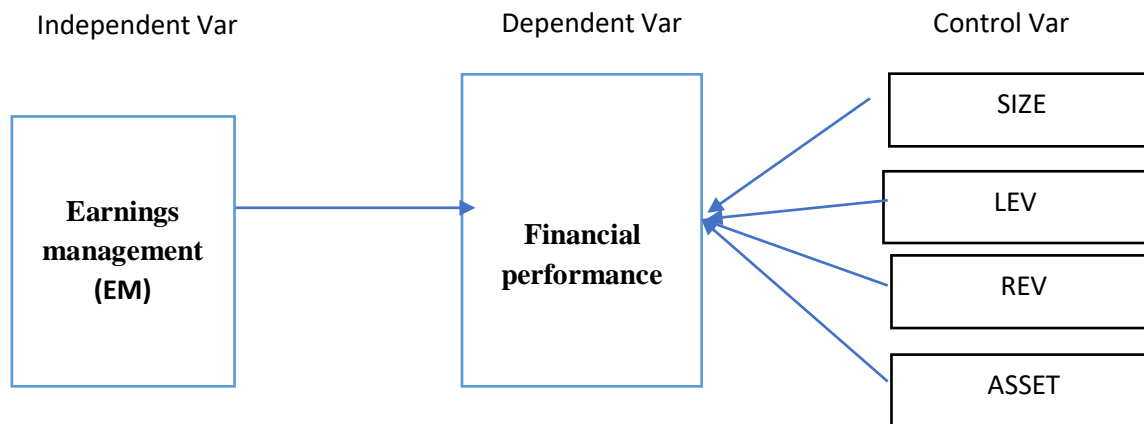


Fig 1: Model research

**SIZE** : Business size,  
**ASSET**: Asset structure

**REV**: Revenue growth rate,  
**LEV**: Leverage

5. Research Results and Discussion

5.1. Research Data

The study focuses on 66 industrial enterprises listed on the HOSE in Vietnam, with a total of 330 observations. The financial data of these companies were analyzed over the period 2019 to 2023

to identify changes and fluctuations in earnings management and to examine the relationship between earnings management and business performance during the pandemic.

*5.2. Model Results*

*5.2.1. Correlation Matrix*

**Table 1: Correlation between variables**

	ROA	ROE	EPS	OM	EM	SIZE	LEV	REV	ASSET
ROA	1,0000								
ROE	0,8442	1,0000							
EPS	0,6947	0,6107	1,0000						
OM	0,5036	0,5143	0,4399	1,0000					
EM	-0,3164	-0,2873	-0,2682	-0,0830	1,0000				
SIZE	-0,0830	-0,0830	-0,0830	-0,0830	-0,0830	1,0000			
LEV	0,0364	0,0166	-0,1417	-0,1025	0,0020	-0,2061	1,0000		
REV	0,0260	0,0734	0,0127	0,0386	-0,4387	0,1357	-0,0667	1,0000	
ASSET	0,0399	0,0790	-0,0135	0,0399	-0,2414	0,0899	0,0337	-0,0131	1,0000

Source: Stata Analysis Results

The results of the correlation matrix analysis (Table 1) show that the relationships between the variables in the model have remarkable trends. The independent variable EM has a negative correlation coefficient with all four dependent variables, including ROA, ROE, EPS, and OM. The control variable SIZE has a negative correlation with the two variables ROA and ROE, but a positive correlation with OM and EPS. In contrast, the control variable LEV has a positive correlation with ROA and ROE, while it is negatively correlated with OM and EPS. The variable REV shows a positive correlation with all four dependent variables. Finally, the variable ASSET has a positive correlation with the three dependent variables ROA, ROE, and OM, but has no positive correlation with EPS.

5.2.2. Test results

Table 2: Results of running the F test and Hausman test

Hypothesis 1				Hypothesis 2			
	OLS	FEM	REM		OLS	FEM	REM
DA	-.062526***	-0.022774***	-0.026895 ***	DA	-0.087422 ***	-0.0324722 **	-0.0425608 ***
FS	0.0005464	0.0064031***	0.0013015	FS	-0.0032969	-0.0021013	-0.0053748
Lev	0.0022533	0.0166466	0.0121492 **	Lev	0.0007694	-0.0030914	-0.0013557
SG	-0.038750**	0.0116458	0.0064769	SG	-0.0282449	0.0357186	0.0240702
AS	-0.0462141	-0.0175222	-0.021856	AS	-0.0498299	0.0107695	0.0019795
Cons	0.0640382	-0.1106384	0.0370861	Cons	0.2268887	0.2036012	0.2912135
N	330			N	330		

Hypothesis 3				Hypothesis 4			
	OLS	FEM	REM		OLS	FEM	REM
DA	-2872.26 ***	-630.7151 **	-798.4509 ***	DA	-0.0199146	0.0099529	0.0002049
FS	256.9757 *	1123.069 **	459.1732 *	FS	0.0064361	-0.0156702	0.0049632
Lev	-434.9051 **	400.1779 *	198.9955	Lev	-0.0081231	0.0014348	-0.0046573
SG	-2240.876***	596.3248	364.0485	SG	-.007389	0.034976	0.0228879
AS	-4196.192 *	-390.417	-1227.412	AS	0.0118849	-0.0720534	-0.0125398
Cons	-2691.094	-28071.55	-9135.157	Cons	-0.0997089	0.5364165	-0.0500584
N	330			N	330		

**Note:**

(\*): With a significance level of 10% ( $p < 0.1$ )

(\*\*): With a significance level of 5% ( $p < 0.05$ )

(\*\*\*): With a significance level of 1% ( $p < 0.01$ )

Source: Stata results

Performing the F test with  $\text{Prob} > F = 0.0000$ , we see that the FEM model is a more suitable choice than the OLS model. Continuing to test the Breusch - Pagan Lagrangian, we get the results  $\text{Prob} > \chi^2 = 0.0000$ , so the REM model is better than the OLS model.



To determine the most suitable model, the research team performed the Hausman test to compare the REM and FEM models. With the dependent variables ROA and EPS, we get the values Prob > chi2 = 0.0122 and Prob > chi2 = 0.0007 respectively, so we can conclude that the FEM model is more suitable. In contrast, with the dependent variables ROE and OM, we get the values Prob > chi2 = 0.0933 and Prob > chi2 = 0.1181 respectively, so the REM model is the best among the 3 proposed models. However, further diagnostic tests revealed issues of heteroscedasticity and autocorrelation across all four models. To address these limitations, the research team recommends using the Feasible Generalized Least Squares (FGLS) method as a corrective approach.

Table 3: FGLS results

Research variables	ROA	ROE	EPS	OM
EM	-0.0078823 **	-.0115752	-211.2278	.0014941
SIZE	-0.0059882	-.0113835	792.1058 ***	.0028934
LEV	0.0029138	-.0133114 **	77.40431	-.0040108
REV	0.0150429 ***	.0286088 ***	622.3274 ***	.0102932
ASSET	0.0187232	.0422688	187.89	-.0722746 ***
Cons	.2369549	.4389175	-17529.3	.0495226
Panel data model type	FGLS	FGLS	FGLS	FGLS
Number of observation	330	330	330	330

**Note:**

(\*): With a significance level of 10% ( $p < 0.1$ )

(\*\*): With a significance level of 5% ( $p < 0.05$ )

(\*\*\*): With a significance level of 1% ( $p < 0.01$ )

Source: Stata results

### *5.3. Discussion of Results*

After conducting the test, the research team concluded that all four hypotheses H1, H2, H3, H4 were accepted: EM has a negative impact on ROA, ROE, and inversely on EPS and OM in the future. Future financial performance will generally be negatively affected by current adjustments through accrual accounting, because through these transactions, managers can boost revenue by intervening in financial statements, making revenue and profit appear higher than they actually are. This misconception makes investors believe that the company is doing very well in the current year. However, over time, investors will be disappointed because these past adjustments will reduce future financial performance, even though there may still be adjustments in the future. This is also consistent with the Prospect Theory of Kahneman & Tversky (1979) and the Agency Theory of Jensen & Meckling (1976), reaffirming the results of previous studies by Dechow et al. (1995), Subramanyam (1996), Healy & Wahlen (1999). In Vietnam, this research result coincides with the research of Duong Thi Chi (2021), and is also a remedy for the research limitations of Nguyen Do Quyen & Tran Quoc Hoang (2017), Nguyen Vinh Khuong et al (2019) because the authors have proposed the relationship between profit adjustment and future financial performance.

## **6. Conclusion and policy recommendations**

### *6.1. Conclusion*

The study focuses on analyzing the relationship between earnings management behavior and business performance of enterprises in the industrial sector in Vietnam in the period of 2019 - 2023. The results show:

- Negative impact of earnings management on long-term financial performance. Financial indicators such as ROA and ROE are negatively affected by earnings adjustment. This shows that earnings management behavior, although it can create short-term benefits, reduces the efficiency of asset and capital use in the long term. Earnings management behavior is often strategic in nature to achieve profit targets or maintain corporate image, but reduces transparency and increases financial risks.

Heterogeneous impact of earnings management on other financial indicators. EPS: Earnings management has a positive impact, helping businesses create a positive financial signal in the market. This can help attract investors, especially in the short term.

OM (operating profit margin): Earnings management does not show a clear relationship with this indicator, possibly because profit margins depend more on actual business operations rather than accounting changes.

During the COVID-19 pandemic (2019–2023): Earnings management is used as a crisis response measure, to maintain financial stability and minimize negative impacts from global economic fluctuations.

Control factors: Factors such as Business size (SIZE), revenue growth rate (REV), and asset structure (ASSET) also significantly affect business performance. This emphasizes the role of overall management in maintaining business stability and performance.

### *6.2. Policy Recommendations*

Based on the research findings, the authors propose the following policy recommendations to enhance performance and mitigate risks associated with earnings management:

For businesses, increase transparency in financial reporting. Adopt International Financial Reporting Standards (IFRS) to enhance transparency and minimize manipulative earnings management practices. Improve the quality of internal and independent audits to detect and prevent inappropriate earnings adjustments. Prioritize sustainable financial strategies. Businesses should shift from pursuing short-term goals such as immediate profits to strategic financial management, including efficient cost control, cash flow optimization, and investment in long-term value projects. Strengthen crisis management capabilities. Especially after the pandemic, businesses should develop crisis response scenarios to ensure stability in uncertain economic conditions. This includes maintaining financial reserves, restructuring supply chains, and incorporating digital technology into operations management.

For government regulators, strengthen supervision and control of earnings management practices. Develop specific legal frameworks to regulate earnings adjustments, especially during economic crises when the risks of earnings management increase. Enhance penalties for fraudulent financial reporting, while promoting training programs on professional ethics in accounting and auditing. Encourage the adoption of international accounting standards. Promote the implementation of IFRS to enhance transparency and reduce negative earnings management practices. This not only improves the reputation of businesses in international markets but also enhances the quality of financial information for investors. Develop an early warning system. Regulatory authorities should build monitoring and early warning systems to detect anomalies in financial statements, thereby reducing systemic financial risks. Improve the capacity of independent audits. Strengthen oversight of the quality of independent audit firms to ensure that these entities fulfill their role in controlling and detecting fraud in financial reporting.

For investors, conduct long-term evaluations and reference information from multiple sources. Investors should be cautious when evaluating businesses, not solely relying on short-term financial indicators but focusing on sustainable growth potential in the long term. Combine financial data with non-financial reports for a more comprehensive view of a company's performance.

In this study, the dataset focuses on a specific industry in Vietnam, so the findings may not generalize to other industries or countries. Non-financial factors such as corporate culture or management quality were not included in the analysis. Future research should aim to expand to other industries or regions to test the generalizability of the findings. Alternatively, including

non-financial factors in the research model could provide a deeper understanding of the factors influencing business performance.

### **References**

- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2-3), 344-401.
- Duong Thi Chi (2021). Earnings management and its consequences in the Vietnamese food and beverage industry. *Journal of Vietnamese Business Research*, 9(3), 98-113.
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365-383.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163-197.
- Nguyen, T. H. M. (2019). Earnings management in the service sector in Vietnam: A case study on the tourism and hospitality industries. *International Journal of Accounting Studies*, 12(4), 112-134.
- Pham, Thi Lan., & Nguyen, Duc Dung (2021). The impact of economic crises on earnings management of small and medium enterprises in Vietnam: Evidence from the COVID-19 pandemic. *Asian Journal of Business and Accounting*, 14(1), 78-94.
- Ross, S. A. (1973). The economic theory of agency: The principal's problem. *The American Economic Review*, 63(2), 134-139.
- Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335-370.
- Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics*, 22(1-3), 221-244.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355-374.
- Tran, V. A. (2018). Analyzing the factors affecting earnings management of listed manufacturing companies in Vietnam. *Vietnamese Journal of Accounting and Finance*, 5(2), 54-70.