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# ON FINANCIAL RISKS FOR VIETNAMESE LISTED MANUFACTURING ENTERPRISES ON UPCOM

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Abstract: The main objective of the study is to assess the impact of auditors' opinions on financial risks of manufacturing enterprises on the Upcom stock. After removing observations with incomplete financial reports from 2019-2022, there are 275 manufacturing enterprises suitable for analysis, corresponding to 1,100 observations. The article utilizes descriptive statistics and fixed regression methods to achieve the research objective. The research results show that auditors' opinions have an impact on financial risk (proxied by Z-score). In addition, the results also show that 2/5 control variables have a statistically significant influence on financial risk, specifically auditor changes and audit delay. The study contributes to helping stakeholders such as investors and enterprises consider audit opinions to make appropriate decisions.

· Keywords: auditor's opinions, financial risk, manufacturing enterprises, upcom.

JEL codes: G21, G34

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# 1. Introduction

In the contemporary digital economy, stock exchanges are extensively developed and more favored by investors both nationally and globally. Stock exchanges furnish investors with comprehensive information regarding listed companies, encompassing stock codes, operational status, company size, and additional details. This aims to guarantee the transparency and impartiality of financial statements (FS) produced by publicly traded corporations. Consequently, the function of independent auditing firms has grown essential across all businesses and sectors represented on the exchange, aiding in the validation of the accuracy and integrity of financial statements submitted by companies. Simultaneously, they can offer appropriate financial counsel for individuals and groups seeking to invest in a company.

According to auditing standards, auditing companies will evaluate the integrity and rationality of FS, encompassing both the presentation format of the FS and the existence and precision of the statistics. Subsequently, auditors will render a suitable opinions. Will the audit opinions for the just finished financial year influence the company's operations and affect its financial risks? This is the rationale for conducting this investigation.

This research aims to examine the influence of audit opinions from the recently finished financial year on

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the financial risks that manufacturing companies may encounter in the subsequent fiscal year. Consequently, the study attempts to deliver adequate responses to the aforementioned problems, which are prevalent inquiries among scholars in Accounting and Auditing. The study utilizes data gathered from 275 manufacturing firms listed on the Upcom Stock Exchange, a platform for unlisted public companies managed directly by the Hanoi Stock Exchange.

# 2. Literature review

# Backgound theory

Agency Theory: Formulated by Jensen and Meckling (1976), this theory primarily examines the interaction between the principal and the agent. The agent will execute specific activities on behalf of the principle as stipulated in a contract, especially highlighting the interaction between shareholders and managers. Two categories of contracts that receive particular focus in illustrating the relationship between the principle and the agent are: the agreement between shareholders and managers, and the loan agreement (the contract between managers representing the firm and creditors). Agency theory posits that both the principal and the agent consistently seek to optimize their respective profits. Consequently, contractual connections frequently result in agency expenses. Agency costs are the losses incurred by the principal as a result of the divergence

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between their interests and those of the agency. Public corporations frequently use external managers to assist in the company's operations, prompting owners to meticulously oversee all managerial activities to optimize their earnings. Consequently, the greater the volume and detail of information disclosed by managers, the more it mitigates management costs, including monitoring expenses, binding costs, and associated losses, while simultaneously diminishing distrust between shareholders and managers.

Theory of Asymmetric Information: This theory was formulated by three scholars George Akerlof, Michael Spence, and Joseph Stiglitz (2001) who were awarded the Nobel Prize in Economics. Kyle (1985) states that asymmetric information in the stock market arises when certain investors hold private information or have access to more publicized information about a company than their counterparts. The prevalence of asymmetric information in the market adversely affects firms, resulting in substantial consequences for the stock market, notably for investors. Insufficient information from corporations can cause investors to miscomprehend the company's operations or misinterpret circumstances, leading to misguided actions with significant repercussions. This theory advocates for enterprises to enhance the dissemination of precise, standardized information to less-informed persons in order to mitigate harm to investors specifically and the economy broadly.

### Auditor's opinion

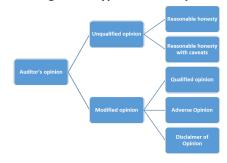
Based on the Vietnamese Standards on Auditing, Standard No. 700: Forming an Audit Opinion and Reporting on Financial Statements, paragraph 10, it stipulates that the auditor has to articulate an audit opinion regarding the conformity of the financial statements with the relevant financial reporting framework, in all material respects. This encompasses two categories of audit opinions: an unqualified opinion and a modified opinion.

Unqualified opinion: An unqualified opinion is defined by the Vietnamese Standards on Auditing, Standard No. 700: Forming an Audit Opinion and Reporting on Financial Statements, paragraph 07c, as an audit opinion issued when the auditor concludes that the financial statements, in all material respects, are prepared in accordance with the applicable financial reporting framework.

Modified opinion: An unqualified opinion is defined by the Vietnamese Standards on Auditing, Standard No. 700: Forming an Audit Opinion and Reporting on Financial Statements, paragraph 07c, as an audit opinion issued when the auditor concludes that the financial statements, in all material respects, are prepared in accordance with the applicable financial reporting framework.

- Qualified opinion: A qualified opinion, or "partial acceptance" opinion, is issued when the auditor determines that the financial statements, in all material respects, accurately represent the entity's financial position, with the exception of specific matters identified in the audit report (Auditing Standard 705, paragraph 7).
- Adverse Opinion: This opinion is opposite with with an unqualified opinion, as it relies on adequate and pertinent audit evidence gathered. The auditor determines that the misstatements, both individually and collectively, are material and pervasive to the financial statements (Auditing Standard 705, paragraph 8).
- Disclaimer of Opinion: The auditor have to refuse to issue an opinion when unable to gather sufficient acceptable audit evidence to substantiate the audit opinion, and determines that the potential impact of undiscovered misstatements, if any, might be serious and pervasive to the financial statements. Conversely, if there exists a significant constraint on the audit's scope, the auditor shall refrain from declining to give an opinion to prevent issuing a contradicting opinion (Auditing Standard 705, paragraph 9).

Figure 1 - Types of audit opinions



Source: ISA 700 standard summary

# Financial risk

Financial risk denotes the risk of financial loss inside enterprises. Financial risk may stem from external sources, such as market volatility that diminishes asset prices, or from internal financial decisions that impact debt capacity and cash flow management. Certain concerns linked to financial risk encompass:

Market risk: Characterized as the risk to a financial portfolio arising from variations in market prices, including stock prices, currency rates, interest rates, and commodity prices.

Liquidity risk: A particular risk associated with executing transactions in markets exhibiting poor liquidity, marked by diminished trading volumes and extensive bid-ask spreads. Under these circumstances, efforts to liquidate assets may exacerbate price declines, necessitating sales at values below their intrinsic worth or extending the timeframe for divestiture beyond initial projections.

Operational risk: The potential for loss arising from physical disasters, technical malfunctions, and human errors in a company's operations, encompassing fraud, managerial misjudgments, and procedural failures.

Credit risk: The likelihood that a counterparty may fail to meet some or all of their obligations by the specified deadline. Consequently, credit risk includes both the risk of a party defaulting on their obligations and the danger of receiving partial payments or payments beyond the stipulated deadline.

Business risk: The potential that alterations in the variables of a business strategy could jeopardize its feasibility. This encompasses quantifiable risks, such cyclical hazards and demand equations, and unquantifiable risks, such as alterations in competitive behavior or technology. Business risk is defined as the hazards inherent to a company's fundamental operations that require appropriate management.

### **Z**-score model

Altman established the Z-score model in (1968) as an indicator of financial risk for firms. Altman employed statistical analysis and discriminant analysis methods to rectify the discrepancies among accounting variables in Beaver's prior univariate model (1966). The model utilized data from 66 manufacturing and small enterprises in the U.S. with total assets below \$1 million, spanning the years 1946 to 1965, comprising 33 bankrupt firms and 33 non-bankrupt firms. The Z-score was originally utilized just for manufacturing companies and not for other sectors. The Z-score is computed using five financial ratios, each with specific weights, to evaluate business risk. The Z-score model, first created in the United States, can be effectively utilized in several countries. The preliminary model comprises five financial ratios with varying weights, applied to unlisted manufacturing firms in Vietnam. The initial comprehensive model comprises five financial ratios with varying weights: the working capital to total assets ratio; the retained earnings to total assets ratio; the earnings before interest and taxes (EBIT) to total assets ratio; the market value of equity to book value of total debt ratio; and the sales to total assets ratio.

In 2000, Altman researched and developed the Z-score for applicability to non-manufacturing enterprises. The study's results identified five independent variables (financial ratios) that most accurately forecast a company's likelihood of default: the ratio of earnings before tax, interest, and depreciation to total assets; short-term debt to book value of equity; retained earnings to total assets; cash to total assets; and earnings before tax, interest, and depreciation to interest expenses. This model can be utilized in the contemporary economy to forecast bankruptcy one, two, or even three years ahead, owing to its simplicity

and considerable accuracy. The approach has been augmented for larger enterprises across many sectors. The metrics utilized in the calculation method are readily accessible from the companies' financial statements and extensively disseminated information.

# 3. Research methodology

# Hypothesis proposing

The auditor's role is to provide an opinion on the extent to which the company's fiscal report accurately represents its financial situation, operational results, and cash flows in all significant aspects. A modified audit opinion (MAO) from the auditor will affect the quality of accounting information, resulting in heightened information asymmetry between external and internal parties. Subpar accounting information will increase investors' estimation risk and agency costs, leading investors to seek larger returns to offset the added risks and costs (Francis et al., 2005; Lambert et al., 2007). Increased external finance costs correlate with heightened financial limitations for the company (Fazzari et al., 1988). If an auditor's judgment diminishes the capacity to obtain equity financing and bank loans (Li et al., 2005), then the auditor's view influences financial risk. Consequently, the subsequent hypothesis is posited.

Hypothesis: Modified audit opinion has a positive impact on financial risk.

### Data collection and analysis methods

This research employs secondary data in a panel format, integrating time-series and cross-sectional data from the financial statements of 275 publicly listed manufacturing firms on the Upcom Stock Exchange, spanning the years 2019 to 2022. The data obtained from audited and extensively published financial records guarantees substantial trustworthiness, enhancing the objectivity of research outcomes. The study also employs data from the Ministry of Planning and Investment and the General Statistics Office's website.

The research used a multivariate regression technique to assess the influence of audit views on financial risk. Financial accounting information is generally gathered and presented on an annual basis. The implementation of a one-year lag enables the research model to utilize historical data for enhanced forecasting or trend analysis accuracy. Moreover, employing independent and dependent variables concurrently may result in endogeneity proplems inside the financial econometric model, potentially yielding biased and less objective analytical outcomes. Consequently, employing a oneyear lag alleviates the effects of this problem. Thus, the authors have integrated a one-year lag into this study model to guarantee the validity and precision of the analytical outcomes. The comprehensive regression model is expressed as follows:

$$RISK_{i,t} = \beta_0 + \beta_1 AO_{i,t-1} + \beta_2 ROA_{i,t-1} + \beta_3 ROE_{i,t-1} + \beta_4 BIG4_{i,t-1} + \beta_5 ChangMH_{i,t-1} + \beta_6 DAY_{i,t-1} + \mu_{i,t}$$
(2)

In which,

RISK: financial risk, determined by Alman's (1968) Z-score model

Z-score =1,2WA + 1,4RA + 3,3EA + 0,64MB + 0.999SA

With the X:

WA: Working capital to total assets ratio

RA: Retained earnings to total assets ratio

EA: Earnings before interest and taxes to total assets ratio

MB: Market value of equity to book value of total debt

SA: Sales to total assets ratio.

AO: is the audit opinion over the years

ROA: Return on total assets ROE: Return on Equity.

BIG4: Are the auditing firms among the top 4 largest auditing firms in the world (E&Y, Deloitte, KPMG and PwC)

ChangeMH: there is a change in auditing company over research period

DAY: audit opinion lag

Table 1 - Variables measurement

Variables	Code	Measurement	Expectation
Financial risk	RISK	Proxied by Z-score index	
Audit opinion (independent variable)	OA	The variable will take a value of 1 if the audit opinion is not an unqualified opinion and a value of 0 if the audit opinion is an unqualified opinion.	+
Return on total assets (control variable)	ROA	Net income Average total asset	+
Return on equity (control variable)	ROE	Net income Average total equity	+
The auditing firms are among the top 4 largest in the world (control variable)	BIG4	is a dummy variable, with 0 being non-top 4 and 1 being top 4 auditing firms	+
A change in auditing company over research period (control variable)	ChangeMH	A dummy variable, where 0 indicates no change and 1 signifies a change in the auditing firm	+
Audit opinion lag (control variable)	DAY	Represent the time from the end of the fiscal year to the date the auditor signs the report	+

Source: authors' review, 2024

### 4. Research result

### Data description

The data is analyzed using STATA 17 software in panel data format, providing descriptive statistics on the bankruptcy rate (RISK), audit opinions from 2019 to 2022, the duration of audit opinion issuance each year, BIG4 (the four leading audit firms), changes in auditing firms, and financial metrics such as return on assets (ROA) and return on equity (ROE), as detailed in Table 2. The findings reveal that, on average, approximately 23% of audit opinions in the sample were not unqualified; the mean duration for audit opinion issuance was 90 days; the average proportion of companies audited by BIG4 firms was 15%; and

around 29% of companies underwent changes in audit firms over the years.

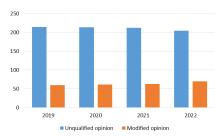
**Table 2 - Variable description** 

Variable	Obs	Mean	St.de	Min	Max
RISK	1,088	6.700858	70.77424	-109.05	1547.81
OA	1,095	.2328767	.4228575	0	1
ROA	1,088	1.734518	33.93092	-42.08	1063.92
ROE	1,088	.3426471	5.856568	-7.05	168.75
BIG4	1,088	.1534926	.3606275	0	1
ChangeMH	1,088	.2941176	.4558546	0	1
DAY	1,088	90.33915	54.26278	2	360

Source: authors' calculation, 2024

Figure 2 depicts the audit opinions on the financial statements of 275 surveyed companies from 2019 to 2022. It indicates that unqualified opinions constitute a significant majority (exceeding 70%) relative to non-unqualified opinions throughout the years, exhibiting a declining trend over time (specifically 78.2%, 77.8%, 77.1%, and 74.5% for the years 2019 to 2022, respectively).

Figure 2. Types of audit's opinions from 2019-2022



# Autocorrelation and multicollinearity test results

The results of correlation analysis are shown in Table 3, indicating the absence of multicollinearity among the independent variables in the regression, since the correlation values remain within the allowable threshold (<0.8).

Table 3. Correlation coefficient matrix

	RISK	OA	ChangeMH	DAY	BIG4	ROA	ROE
RISK	1.0000						
OA	0.0270	1.0000					
ChangeMH	-0.0095	-0.0749	1.0000				
DAY	0.0061	0.0158	-0.0400	1.0000			
BIG4	0.0555	-0.0843	-0.0734	-0.0229	1.0000		
ROA	0.0216	-0.0149	0.0335	0.1225	-0.0248	1.0000	
ROE	0.0221	0.0045	0.0227	0.0816	-0.0161	0.0829	1.0000

Source: authors' calculation, 2024.

In addition, the VIF analysis results further confirmed that there was no multicollinearity among the explanatory variables (Table 4).

Table 4. VIF test

Variables	VIF	1/VIF
ROA	3.25	0.308085
ROE	3.21	0.311331
DAY	1.02	0.979945
OA	1.02	0.984979
ChangeMH	1.02	0.985011
BIG4	1.01	0.985392
Mean VIF	1.75	

Source: authors' calculation, 2024



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### Regression analysis

Table 5 presents the regression outcomes derived from the random effects model (REM) and the fixed effects model (FEM), accompanied by the Hausman test results. The fixed effects model (FEM) is thus advised for use. The analysis and conclusions concerning the influence of explanatory variables on the dependent variable (financial risk) of publicly listed manufacturing firms on Upcom from 2019 to 2022 are founded on this model.

Table 5. Regression result

RISK	REM		FEN	VI
KISK	Coef	P> z	Coef	P> z
OA	.7588643	0.152	1.346584	0.057
L1.	./300043	0.152	1.340384	0.057
ChangeMH	4.564402	0.000	4.100120	0.000
L1.	1.564403	0.002	4.169138	0.000
DAY	0135153	0.007	0102004	0.004
L1.	0125152	0.007	0103094	0.064
BIG4	0502040	0.149	-2.336368	0.175
L1.	.9583818			
ROA	4.841012	0.000	.0350024	0.991
L1.	4.841012	0.000	.0330024	0.991
ROE	2004424	0.526	2206275	0.700
L1.	3991124	0.526	2206275	0.790
Number of obs	812		812	
Number of groups	275		275	
R-sq	0.0616		0.0074	
Hausman test:				
	Prob > chi2 = 0,4557			

Source: authors' calculation, 2024

The FEM model indicates that three out of the six explanatory variables significantly influence financial risk. The variables OA (audit opinion), ChangeMH (change in audit firm over the years), and DAY (delay in audit opinion) exhibit statistical significance at levels of 10%, 1%, and 10%, respectively.

The primary aim of the study is to investigate the correlation between audit opinions and financial risk in manufacturing companies that are not yet listed on the Upcom exchange from 2019 to 2022. The findings in Table 5 indicate that the auditor's modified opinion exhibits a positive impact on the company's financial risk at a 10% significance level. This outcome corresponds with the conclusions of Etemadi et al. (2012). Companies facing financial risk tend to obscure this risk in certain indicators in their financial statements. Consequently, an increase in modified opinions from auditors indicates a heightened financial risk for the companies.

In addition, the results indicate that the influence of two out of five control variables is statistically significant at the 1% and 10% levels for the variables ChangeMH (auditor changes over the years) and DAY (lag of audit opinion), respectively. This outcome aligns with the findings of Schwartz and Menon (1985), who contended that firms under financial risk frequently alter their auditors. Indeed, financial difficulties are

significantly correlated with intentional changes, especially when companies have incentives to hide negative financial information (Khikmah et al., 2020). Furthermore, the duration required for auditors to render audit opinions also influences financial risk. A reduced audit duration for the issuance of an audit opinion correlates with an increased probability of financial risk for a corporation. Although this result contradicts the findings of Khikmah et al. (2020), it aligns with the study by Okonewa and Okafor (2024). The authors argued that the time of audit report disclosure is crucial and should occur promptly, as it influences investors' judgments. Delays may convey a negative indication to investors regarding the audited company.

Conclusion: The audit opinion is considered as a protective measure for a company's financial status, particularly in the context of a volatile economy and challenges arising from the COVID-19 epidemic. This study analyzes data from 275 manufacturing companies listed on the Upcom stock exchange between 2019 and 2022 to investigate the influence and direction of audit opinion, particularly modified opinions, on financial risk. Moreover, the Z-score and several control variables are employed to construct the estimated research model, such as BIG4, audit change, audit opinion lag, return on asset, and return on equity. The research utilized descriptive statistics and fixed regression techniques to examine the variations in the indicators. The findings indicate that the financial risk of unlisted manufacturing firms on Upcom is influenced by audit opinion; particularly, an increase in the frequency of modified opinions correlates with a rise in financial risk. The study indicates that the financial risk of manufacturing enterprises on Upcom is also affected by alterations in audit firms and delays in audit opinions.

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