

**THE ANALYSIS OF INFLUENCING FACTORS ON THE
GOING CONCERN AUDIT OPINION STUDY IN
MANUFACTURING FIRMS IN INDONESIA**

THESIS



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**ACCOUNTING INTERNATIONAL
UNDERGRADUATE PROGRAM
FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITAS ISLAM INDONESIA
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**The Analysis of Influencing Factors on The Going Concern Audit
Opinion Study in Manufacturing Firms in Indonesia**

THESIS

Prepared and submitted to fulfil one of the requirements for a Bachelor's Degree
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2026**

DECLARATION OF AUTHENTICITY

Here I declare the originality of the thesis, I have not presented anyone else's work to obtain my university degree, not have I presented anyone else's words, ideas, or expression without acknowledgment. All quotations are cited and listed in the bibliography of the thesis.

If this statement is false in the future, I am willing to accept any sanction complying with the determined regulation or its consequences.

Yogyakarta, February 26, 2026

A handwritten signature in black ink is written over a pink 100,000 Rupiah Indonesian banknote. The banknote features a QR code on the left and the Garuda Pancasila emblem in the center. The signature is stylized and covers the central part of the note.

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MOTTO

“And whoever puts their trust in Allah, then He is sufficient for them”.
(Qur'an, Surah At-Talaq 65:3)

“Success is the sum of small efforts repeated day in and day out”.
- Robert Collier

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ABSTRACT

This study aims to analyse the effects of audit quality, auditor tenure, profitability, leverage, and company size on going-concern audit opinions for manufacturing companies listed on the Indonesia Stock Exchange from 2022 to 2024. This study uses a quantitative methodology with logistic regression, where the dependent variable is dichotomous (1 = obtained a going-concern opinion, 0 = did not get a going-concern opinion). The sample was obtained through purposive sampling from a population of 359 companies, yielding 221 eligible companies for the three-year observation period, for a total of 663 observations. The findings show that the independent variables simultaneously have a significant effect on the going concern audit opinion. Profitability, leverage, and company size have a considerable impact, although audit quality and auditor tenure do not. The Nagelkerke R-square value of 0.147 indicates that the model explains 14.7% of the variation in the going-concern audit conclusion.

Keywords: going-concern, audit quality, audit tenure, profitability, financial leverage, organizational scale

CHAPTER I

INTRODUCTION

1.1. Background Study

An auditor's going concern audit opinion is a key part of audit reporting. It is their view on whether a company can continue to operate in the near future without the risk of going out of business (IAASB, 2016). Auditors provide going- concern audit opinions to readers of financial statements to indicate the likelihood that a business will continue as a going concern (Komara, 2024). This conclusion arises when auditors have significant concerns about a company's ability to continue its operations normally. This may be due to cash flow problems, excessive debt, ongoing operating losses, or other indicators of difficulty. The going concern opinion serves as an early warning for investors and creditors and a tool for assessing business risk and default. Many studies have proven that going concern is closely related to financial conditions and indicators of business instability, so auditors must exercise extreme caution when assessing relevant audit data. A conference study by Anggarini & Zulfikar (2022) shows that corporate factors such as size, leverage, profitability, liquidity, and audit quality are often used to explain the adoption of going-concern assessments.

However, a going-concern perspective can negatively impact a company's reputation and financial performance. A going-concern opinion can negatively affect market perceptions, increase financing costs, and reduce stakeholder confidence (Julianti & Mahpudin, 2025). The auditor's decision to issue a going- concern opinion is strongly influenced by various professional factors, including client conditions and the auditor's personal attributes. Recent literature shows that the factors influencing going concern are not consistently uniform across studies, prompting rigorous re-evaluation and strengthening of empirical evidence in specific contexts and historical periods. A systematic literature review confirms that factors influencing the acceptance of going-concern opinions are often shaped by a combination of corporate and auditor

characteristics, as well as differences in the industry environment and the observation period (Juanda & Lamury, 2021).

In Indonesian manufacturing companies, the going concern principle is relevant because this sector experiences regular fluctuations in production costs, competitive challenges, and significant working capital requirements. These variables can affect business financing (debt) and revenue, potentially influencing the auditor's assessment of the going-concern assumption. Research in Indonesia shows that auditors often use profitability and leverage as key metrics to assess going-concern risk. Research on manufacturing companies shows that leverage, profitability, and specific audit indicators are usually analysed using logistic regression to predict the likelihood of a going-concern opinion.

This study examines the factors influencing going concern audit opinions in Indonesian manufacturing firms from 2022 to 2024, assessing the effects of audit tenure, audit quality (Big Four versus Non-Big Four), profitability (ROA), leverage (DAR), and company size. The years 2022 to 2024 were selected to reflect the most recent alterations following the epidemic and the shift towards economic recovery. This additionally enhances the findings' relevance to contemporary circumstances. The duration of a public accounting firm's engagement with a client company is referred to as the audit tenure.

The duration of an auditor's tenure with a company correlates positively with the perception of their knowledge regarding the company's operations, accounting frameworks, and audit risks. This suggests that the audit process may be more effective at identifying indicators of a business's uncertainty about its future. An excessively prolonged audit relationship may compromise the auditor's independence due to increased economic and psychological proximity. This may render the auditor's evaluation less objective when they articulate concerns about the going-concern assumption. Audit tenure is defined as the duration of the relationship between a public accounting firm and a single auditee, which may influence independence. This concept underpins the

assessment of audit tenure as a variable that may affect the acceptance of going-concern audit opinions in manufacturing firms (Izdihar, 2022). Furthermore, research on manufacturing companies recognizes audit tenure as a crucial factor in the model for determining going-concern opinions, yet empirical results may vary across timeframes and samples (Prayoga, 2023). A recent study examined audit tenure alongside financial variables (profitability and leverage) in relation to going-concern opinions, demonstrating that audit tenure remains a significant factor in logistic regression analyses.

Audit quality reflects auditors' ability to identify and report significant errors and circumstances that threaten an organization's going concern. In studies of going concern opinions, the reputation and size of public accounting firms (PAFs) are often used as indicators of audit quality. This is especially true for the difference between Big Four and non-Big Four firms. This hypothesis posits that leading public accounting firms have greater resources, superior audit methods, and more substantial incentives to protect their reputations. As a result, they tend to be more cautious in disclosing business continuity issues when there are indications of business continuity risks. Given the perception that leading auditors demonstrate greater transparency regarding uncertainty related to company sustainability (Prayoga, 2023), companies audited by Big Four KAPs are expected to have a different probability of receiving a going-concern opinion than those audited by Non-Big Four KAPs. The research findings show differences in the patterns and quality of business continuity reporting, thereby reinforcing the Big Four versus Non-Big Four proxy as an accurate representation of audit quality in the research model. Recent research shows that audit quality remains a crucial determinant of business continuity opinions, along with scope and size (Anggraini, 2022).

Profit is an essential indicator for assessing a business's performance and sustainability (Prayoga, 2023). It shows a company's efficiency in utilizing its resources to generate profits. It is generally believed that organizations with large profits are better able to maintain their operations, as they have the financial resources to cover costs, support their activities, and face economic

challenges. Conversely, a decline in profitability can signal a decrease in performance, thereby increasing uncertainty about business continuity as the company is considered more vulnerable to cash flow problems, reduced competitiveness, and operational difficulties. This study uses ROA as an indicator of profitability to show a company's efficiency in utilizing its total assets to generate income. This reinforces the assumption that auditors tend to be less sceptical about a company's going concern when it shows higher profitability, as they have less doubt about the company's ability to maintain its operations (Anggraini, 2022). Recent empirical findings show that profitability is a variable considered in relation to its influence on the acceptance of a going-concern opinion, mainly when evaluated in conjunction with control systems such as audit committees.

Leverage is the degree to which a company relies on debt financing and is directly related to financial risk and potential challenges in meeting short- and long- term obligations. Companies with significant leverage will bear a heavier burden of principal and interest payments, which could disrupt cash flow and liquidity and increase the risk of default on debt obligations (Anggraini, 2022). This condition can raise further doubts among auditors about the company's business continuity, especially if significant leverage is not balanced by adequate financial performance and profit-generating capabilities. This study uses the Debt-to-Asset Ratio (DAR) as a proxy for leverage, as it shows the proportion of a company's total assets financed by debt. A higher DAR value indicates that most of the company's funding comes from liabilities, thereby increasing its financial risks. The statement that high leverage increases auditors' doubts about a company's ability to continue operations provides the basis for analysing leverage as a factor influencing audit assessments of business continuity. Previous research shows that leverage affects the probability of a company obtaining a going concern audit opinion, as auditors are more cautious when a company has significant liabilities (Anggraini, 2022). Recent research findings from the 2022-2024 period use DAR as a leverage metric to explain fluctuations in the issuance of going-concern opinions,

highlighting the importance of this ratio in post-pandemic research marked by increased financial pressure across various industrial sectors (Anjani & Nelson, 2025). Therefore, leverage is a theoretically and empirically significant characteristic for analysing its impact on going concern audit opinions in manufacturing companies.

The size of a company is related to its operational scale and resource capabilities, which are generally linked to financial stability, access to funding sources, and the ability to diversify commercial activities (Anggraini, 2022). Large companies typically have greater assets, more sophisticated internal control mechanisms, and a variety of financing alternatives from banks and capital markets. These conditions make it easier for large companies to manage economic challenges and implement adjustments during financial difficulties, thereby reducing the likelihood that auditors will question the company's going-concern status. Conversely, small companies generally have fewer assets, limited access to capital, and a lower ability to adapt to fluctuations in the business environment. These limitations can increase the likelihood of organizational failure, especially when cash flow difficulties or operational challenges arise. Company size is often considered a factor that influences auditors' decisions when issuing going-concern audit opinions. This study measures company size using the natural logarithm of total assets ($\ln$ Total Assets). The natural logarithm transformation is used to stabilize data variance and reduce the impact of scale differences between companies. As a result, the analysis results are more representative and proportionally comparable. The natural logarithm of total assets has been used in several studies to assess company size and analyse the determinants of going-concern audit opinions (Izdihar, 2022). Recent studies have found that company size is a factor in going concern opinions, both as an independent variable and in conjunction with financial variables such as leverage and profitability (Saputra & Hasanah, 2024). This reinforces the claim that company size is relevant to the analysis in research models that aim to assess the factors influencing the adoption of going-concern audit conclusions in manufacturing companies.

1.2 Problem Formulation

1. Does audit tenure affect the issuance of going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024?
2. Does audit quality affect the issuance of going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024?
3. Does profitability affect the issuance of going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024?
4. Does leverage (debt ratio) affect the issuance of going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024?
5. Does company size affect the issuance of going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024?

1.3 Research Objectives

1. Analyzing the effect of audit tenure on going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024.
2. Analyzing the effect of audit quality (Big Four vs. Non-Big Four) on going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024.
3. Analyzing the effect of profitability (ROA) on going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024.
4. Analyzing the effect of leverage (DAR) on going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024.
5. Analyzing the effect of company size on going concern audit opinions on manufacturing companies in Indonesia for the period 2022-2024.

1.4 Research Benefits

1. Theoretical benefits

This study aims to enrich the literature on factors influencing going-concern audit opinions in manufacturing companies in Indonesia. Previous studies have shown empirical variation in the influence of audit quality, profitability, leverage, auditor tenure, and company size on going-concern audit opinions. Research shows that auditor tenure and company size have a significant negative impact on going-concern assessments, whereas profitability does not have a substantial effect in specific periods (Izdihar, 2022). On the other hand, another study suggests that audit quality affects going-concern audit opinions, whereas auditor tenure has no significant effect (Prayoga, 2023).

The variability of these research findings indicates that this crucial academic field requires further review, especially during the 2022-2024 period. In addition, the use of more measurable proxy variables, such as audit quality as indicated by the Big Four and Non-Big Four categories, is expected to clarify the empirical relationship between audit factors and financial considerations in influencing auditor assessments. As a result, this study can confirm, explain, or even revise the theoretical understanding of the factors that influence going-concern audit opinions in the Indonesian manufacturing sector.

2. Practical Benefits

a. For stakeholders and investors

The conclusions of this study should enable individuals to identify the most critical financial and audit indicators to consider before making investment or credit decisions. Going-concern audit opinions are essential indicators of uncertainty about a business's future. Investors and creditors can use information about leverage, profitability, and several audit indicators to assess a company's risk.

b. For company executives, Management can use this information to evaluate strategies to improve the organization's internal performance, particularly

in terms of profitability, debt risk management, and capital procurement. The literature shows that increased debt can increase the likelihood of financial failure and prompt auditor concerns about the company's going-concern status. Therefore, optimizing a sound capital structure and improving profitability are strategic steps to reduce the likelihood of receiving a going-concern opinion.

c. Concerning public accounting firms (KAP) and auditors

This study can serve as a reference for improving the audit review process for manufacturing companies with specific risk characteristics, such as high leverage or low profitability. The discussion on auditor tenure highlights the importance of aligning auditors' understanding of clients with the maintenance of professional independence. Auditors must maintain professional skepticism in all assignments, as overly long audit engagements can threaten independence (Izdihar, 2022).

3. Academic Benefits and Further Research References

This study can serve as a reference for the development of more comprehensive research models in the future. Future researchers can integrate additional variables that may influence going-concern audit opinions, such as financial difficulties, prior audit opinions, audit report delays, or corporate governance mechanisms, thereby strengthening research models to explain audit opinion discrepancies in greater depth.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical framework

2.1.1 Agency Theory

Agency theory describes the contractual relationship between company owners (principals) and management (agents), in which management is authorized to manage company resources in the owners' interests. In practice, conflicts of interest can arise if management has greater knowledge about the company's condition than shareholders. This information imbalance can lead to opportunistic behavior, including the manipulation of financial statements or the concealment of actual financial risks.

Agency disputes are significant in going concern audit opinions. Management may have an incentive not to issue a going concern opinion, as such an assessment could negatively impact stock prices, damage the company's reputation, and reduce creditor confidence. Auditors act as an independent mechanism to monitor activities, thereby reducing agency conflicts by objectively examining the company's financial statements and operational continuity.

International studies confirm the importance of agency theory in business continuity. According to Habib et al. (2022) in *Accounting and Business Research*, bankruptcy risk and financial difficulties exacerbate agency conflicts, which means that auditors need to be more sceptical in their work. García- Blandón et al. (2023) in the *Journal of International Accounting, Auditing, and Taxation* show that agency risk increases the likelihood of a modified audit opinion. Salehi et al. (2023) in the *Journal of Financial Reporting and Accounting* also emphasize that when managers are under significant pressure, it can affect the quality of financial reporting. This

means that auditors have an essential task to ensure that the information presented is reliable.

Therefore, agency theory provides a framework for analyzing how audit and financial variables can influence auditors' decisions about issuing a going-concern audit opinion.

2.1.2 Going Concern Audit Opinion

When an auditor has significant doubts about a company's ability to continue operating, they issue a going-concern audit opinion. The auditor's assessment of the company's financial and operational conditions, along with internal and external variables, led to this opinion. A going-concern audit opinion is significant for stakeholders because it may affect their decisions about investing, obtaining credit, and maintaining confidence in the market.

In the context of business continuity, financial problems such as declining profits or rising debt levels are negative indicators that can increase auditor uncertainty about a business's operational continuity. Business continuity audit opinions indicate significant uncertainty regarding a company's ability to continue operating. The Journal of Risk and Financial Management published a study by Khoufi and Khoufi (2022) that shows that the issuance of a going-concern opinion significantly affects market reactions. Alhadab and Nguyen (2022) in the International Review of Financial Analysis state that institutional investors view going concern opinions as an indicator of bankruptcy risk.

Meidawati and Dwitama (2023) and Komara (2024) identify that auditors primarily consider profitability, leverage, and company size when assessing a company's going concern status. Therefore, signalling theory reinforces the correlation between the independent variables in our study and the going concern audit opinion.

2.2 Definition and characteristics of variables

2.2.1 Going Concern Audit Opinion

A going-concern audit opinion is issued when auditors identify significant uncertainties that could affect a company's ability to maintain its going-concern status in the near future. This assessment includes a review of financial ratios, cash flow, debt composition, and management strategies to overcome economic challenges.

An auditor's going-concern audit opinion is an assessment of the likelihood that a company will be unable to continue as a going concern. This conclusion is based on the auditor's professional judgment, informed by an assessment of the company's financial position and audit. Naufal and Durya (2022) state that auditors consider a range of economic and non-financial factors before deciding whether to issue a going-concern audit opinion.

Global studies show that the factors influencing going concern opinions are highly complex. Habib et al. (2022) found that a combination of excessive leverage and low profits significantly increases the likelihood of a going-concern opinion. Charitou et al. (2022) in the *European Accounting Review* show that solvency ratios are a critical signal in predictive models of going-concern opinions. Lennox and Li (2023) in *The Accounting Review* found that leading auditors are generally more conservative in their going concern assessments.

Salehi and Ghasempour (2023) in the *Journal of Corporate Accounting & Finance* emphasized that post-pandemic global economic pressures have increased the incidence of going concern opinions in many developing countries. Al-Dmour et al. (2023) in the *International Journal of Accounting & Information Management* emphasize that financial variables and corporate governance jointly

influence going-concern assessments.

Therefore, going concern audit conclusions stem from multifaceted assessments that consider financial risk, auditor reputation, and macroeconomic factors.

2.2.2 Audit Tenure

Audit tenure is the period during which an auditor and a client work together. An extended audit tenure may enhance the auditor's comprehension of the client's business; nevertheless, it also risks diminishing the auditor's independence. This depends on the length of the auditor's tenure with the client. Audit tenure is often associated with two conflicting perspectives in the audit literature: the competence-enhancement perspective and the risk-to-independence perspective.

A longer tenure increases the auditor's understanding of the client's business model, internal control framework, and risk patterns. This understanding can improve audit methods and the quality of expert assessments, especially regarding business continuity assessments. García-Blandón et al. (2023) in the *Journal of International Accounting, Auditing and Taxation* found that auditors with significant experience with a particular client are more adept at recognizing subtle indicators of difficulty. Cameran et al. (2022) showed in *Accounting in Europe* that extensive experience can improve the accuracy of risk estimates.

From an independent perspective, overly long terms of office can pose excessive risks. Too close a relationship between auditors and management can reduce professional scepticism. Hassan and Naser (2022) in the *Managerial Auditing Journal* state that overly long terms of office can compromise auditors' objectivity when clients are experiencing financial difficulties. Lennox and Li (2023) in *The*

Accounting Review found that auditors with long-standing relationships tend to be more conservative initially, although this tendency may diminish over time.

In the context of going concern, various global studies have produced inconclusive results. Salehi et al. (2023) conclude that audit tenure does not consistently have a significant effect on going concern opinions when financial distress indicators are included in the model. Komara (2024) in Indonesia also shows that auditor tenure does not significantly affect going concern opinions. This suggests that tenure's impact is situational and often influenced by key company metrics, such as profitability and leverage.

Prayoga and Aryati (2023) assert that “the level of auditor independence in expressing audit opinions is proven to be influenced by the length of time the client becomes the auditor's client”. This is corroborated by Izdihar et al. (2022), who indicate that “the longer the auditor audits the same company continuously, the closer the relationship between the auditor and management, which can reduce auditor independence”.

Therefore, although auditor tenure has the potential to influence audit opinions on business continuity, empirical data show that this effect depends on the balance between better auditor understanding and potential loss of independence.

2.2.3 Audit Quality

The quality of an audit is based on how well the auditor can find and report problems that could affect the company's ability to stay in operation. Auditors with excellent audit quality are supposed to be more attentive when giving audit opinions. The success of an audit depends on the auditor's ability to identify and report significant errors while maintaining independence in their evaluative judgment. This study evaluates audit quality by comparing Big Four and non-Big Four public accounting firms. These firms are often

considered to have different reputations, resources, quality control mechanisms, and levels of litigation risk.

DeFond and Zhang (2022) in the *Journal of Accounting and Economics* state that audit quality is closely related to auditor reputation and associated litigation risk. Respected auditors have a strong incentive to maintain their reputation, so they tend to be more cautious when issuing revised conclusions. Lennox and Li (2023) found in *The Accounting Review* that auditors with a global reputation tend to report greater uncertainty about the going-concern status of high-risk organizations more often.

However, empirical data from several emerging nations reveal outcomes that are not consistently uniform. Salehi and Ghasempour (2023) said in the *Journal of Financial Reporting and Accounting* that when a company's financial concerns are evident, audit quality does not consistently serve as a reliable predictor of the company's viability. In the *International Review of Financial Analysis*, Alhadab and Nguyen (2022) said that adherence to stringent audit regulations and professional standards uniformly does not consistently result in significant disparities in opinion determinations between the Big Four and Non-Big Four firms.

In Indonesia, Komara (2024), Hana and Triani (2024), and Pratama et al. (2024) found that audit quality typically does not significantly influence going-concern opinions in manufacturing firms. The uniformity of audit requirements and regulatory oversight indicates that variations in CPA reputation do not consistently influence opinion determinations.

Naufal and Durya (2022) assert that “auditors with higher audit quality tend to be more careful in issuing going concern audit opinions when there are indications of financial distress”. Conversely, Tamara and Parasetya (2023) found that audit quality does not significantly influence going-concern audit opinions.

Although, in theory, superior audit quality should increase the likelihood of a company receiving a going-concern opinion in adverse

conditions, empirical research indicates that this is heavily contingent on the company's financial circumstances and the nature of the institution.

2.2.4 Profitability

Profitability shows how effectively a corporation generates profit with the resources it has. A high level of profitability indicates that the company is financially stable and can continue operating its business. This study measures profitability using Return on Assets (ROA). A high ROA means efficient resource management and reflects operational stability.

Habib et al. (2022) in *Accounting and Business Research* found that companies with low profitability are more likely to receive a going-concern opinion. Al-Dmour et al. (2023) in the *International Journal of Accounting & Information Management* find that a significant decline in profits increases the likelihood of a going-concern opinion.

Charitou et al. (2022) in the *European Accounting Review* formulated a hardship prediction model showing that profitability is the most reliable predictor of bankruptcy. Khoufi and Khoufi (2022) in the *Journal of Risk and Financial Management* found that ROA significantly affects the logistic regression model of going-concern attitudes.

National studies conducted by Meidawati and Dwitama (2023), Saputra and Hasanah (2024), and Pratama et al. (2024) support similar findings. Their findings indicate that profitability has a significant adverse effect on going-concern opinions. This suggests that increased profitability is associated with a lower likelihood that auditors will question a company's going-concern status.

Bayu, Soebandi, and Peristiwaningsih (2021) assert that "the higher the level of profitability, the greater the company's ability to

generate profits, so auditors tend not to have doubts about the company's business continuity".

As a result, profitability is the most reliable fundamental indicator in the literature regarding its role as a determinant of going concern audit opinions.

2.2.5 Leverage

Leverage indicates the degree to which a corporation depends on debt to fund its assets. A high Debt to Asset Ratio (DAR) indicates greater solvency risk, as the corporation must consistently meet interest and principal obligations. Leverage is the amount of debt a firm uses to finance itself. Companies with a lot of debt are more likely to face financial problems and to be more financially risky.

Charitou et al. (2022) in the European Accounting Review demonstrate that elevated indebtedness increases the probability of insolvency and adverse going-concern assessments. Salehi and Ghasempour (2023) in the Journal of Corporate Accounting & Finance identify leverage as a crucial factor influencing going concern attitudes in high-risk firms.

Habib et al. (2022) assert that high indebtedness heightens cash flow strain and increases the likelihood of a crisis. Alhadab and Nguyen (2022) further affirm that an aggressive capital structure elevates the possibility of a changing view. Tamara and Parasetya (2023) assert that "companies with high leverage levels tend to have a higher risk of financial difficulties, which may prompt auditors to issue a going concern audit opinion". Conversely, Naufal and Durya (2022) found that leverage does not significantly affect going-concern audit opinions.

Consequently, leverage is both conceptually and practically a crucial financial risk indicator in assessments of going concern.

2.2.6 Company Size

The size of a company indicates the scale of its operations and the amount of resources it possesses. Large companies typically offer a wider range of products and services, have easier access to funding, and have better internal control systems. Company size indicates how big a business is and how well it can keep going.

Khoufi and Khoufi (2022) found that large companies are less likely to receive a going concern opinion. According to Alhadab and Nguyen (2022), company size is a protective factor in models that predict financial distress. According to Lennox and Li (2023), auditors tend to be more cautious when issuing going-concern opinions for large companies because of the impact on the market as a whole.

Naufal and Durya (2022) assert that “large companies are considered more capable of maintaining business continuity due to their stronger financial and operational structures”. Conversely, Tamara and Parasetya (2023) found that company size does not significantly influence going-concern audit judgments.

Komara (2024), Pratama et al. (2024), and Meidawati and Dwitama (2023) conducted national studies that also found that company size negatively affects going-concern opinions.

Therefore, company size is often considered a sign of stability, which makes it less likely to issue a going-concern opinion.

2.3 Review of previous studies

Table 2.1 Review of Previous Studies

No	Researcher	Research Title	Variables	Research Results
1	Prayoga and Aryanti (2023)	The Effect of Audit Tenure and Audit Factors on Going Concern Audit Opinions	Audit Tenure, Audit Quality, Going Concern Audit Opinion	Audit tenure has a negative effect on going concern audit opinions, while audit quality has no significant effect.
2	Izdihar et al (2022)	Factors Affecting Going Concern Audit Opinions	Audit Tenure, Profitability, Leverage, Going Concern Audit Opinion	Audit tenure has a negative effect on going concern audit opinions, while leverage and profitability show mixed results.
3	Naufal and Durya (2022)	The Effect of Audit Quality and Company Characteristics on Going Concern	Audit Quality, Leverage, Company Size, Going Concern Audit Opinion	Audit quality, leverage, and company size do not significantly affect the going

		Audit Opinions		concern audit opinion.
4	Tamara and Prasetya (2023)	Determinants of Going Concern Audit Opinions in Manufacturing Companies	Audit Quality, Leverage, Company Size, Going Concern Audit Opinion	Audit quality and company size had no significant effect, while leverage showed a positive effect on going concern audit opinions.
5	Bayu, Soebandi, and Peristiwaing (2021)	The Effect of Financial Performance on Going Concern Audit Opinions	Profitability, Leverage, Company Size, Going Concern Audit Opinion	Profitability and leverage have a significant effect on going concern audit opinions, while company size has no significant effect.
6	Meidawati and Dwitama (2023)	Determinants of Going Concern Audit Opinion	Profitability, Liquidity, Leverage, Audit Lag, Previous Audit Opinion, Going Concern Audit Opinion	Previous year's audit opinion is significant; profitability, leverage, KAP reputation, audit lag are not

				significant.
7	Nafsiyah, Prameswari, Sartika and Umyana (2023)	Determinants of going Concern Audit Opinion	Audit Quality (Big Four), TATO, Size, Growth, DER, DAR, Previous Audit Opinion, Going Concern Audit Opinion	Last year's opinion was significant; audit quality/Big Four, size, DER, DAR were not significant.
8	Zuhroh, Prasetyo, Nugraheni and Riyani (2023)	Effect of Leverage, Previous Year's Audit Opinion and Company Growth on Going Concern Audit Opinion	Leverage, Previous Audit Opinion, Growth, Going Concern Audit Opinion	Last year's opinion/growth/le verage tested; general pattern: last year's opinion tends to be dominant (repeated risk indicator)
9	Yulianti and Muhyarsyah (2022)	The Effect of Profitability, Company Size, Leverage, and Audit Switching on Going Concern Audit Opinion	Profitability, Size, Leverage, Auditor Switching, Going Concern Audit Opinion	Testing profit, size, leverage, switching against GC; typically low profitability & high leverage increase GC risk (depending on

				context).
10	Komara (2024)	The Critical Role of Going Concern Audit Opinions in Relation to Audit Quality, Firm Size, Growth, and Leverage	Audit Quality, Size, Growth, Leverage, Going Concern Audit Opinion	Confirming GC as an output that is sensitive to risk conditions; audit & firm characteristics are tested as determinants.

2.4 Hypotheses Development

2.4.1 The Impact of Audit Tenure on Going Concern Audit Opinion

Audit tenure is the length of time that an auditor and a client work together. It is typically linked to both the auditor's improved knowledge and possible threats to their independence. A longer audit tenure, on the other hand, gives auditors a better grasp of the client's business environment, internal control system, and financial reporting processes. However, prolonged contact may also foster undue intimacy between the auditor and management, thereby diminishing professional skepticism and compromising auditor independence.

Prayoga and Aryati (2023) assert that "the level of auditor independence in expressing audit opinions is proven to be influenced by the length of time the client becomes the auditor's client", suggesting that extended audit tenure may compromise auditors' objectivity. Izdihar et al. (2022) contend that "the longer the auditor audits the same company continuously, the closer the relationship between the auditor and management, which can reduce auditor independence". Consequently, auditors with extended tenure may be less

inclined to issue a going concern audit opinion, even in instances of financial distress. Consequently, audit tenure is anticipated to exert a detrimental impact on the granting of going concern audit opinions.

H1: Audit tenure has a negative effect on the issuance of going concern audit opinions.

2.4.2 The Impact of Audit Quality on Going Concern Audit Opinion

The quality of an audit shows how well the auditor can find substantial errors and report them on their own, even when there are doubts about the business's capacity to continue. When looking at a going concern, high-quality auditors are supposed to be more skeptical and make more cautious decisions. Auditors who have a good reputation and do a good job are more willing to share bad information to keep their credibility and avoid lawsuits.

Naufal and Durya (2022) assert that “auditors with higher audit quality tend to be more careful in issuing going concern audit opinions when there are indications of financial distress”. This implies that enhanced audit quality elevates the probability of auditors providing a going concern opinion when warranted. Tamara and Parasetya (2023) assert that audit quality does not substantially affect the issuance of going concern audit conclusions, contradicting empirical data. Even though the results are varied, audit quality is still crucial in theory for how auditors make decisions about their work.

H2: Audit quality has a positive effect on the issuance of going concern audit opinions.

2.4.3 The Impact of Profitability on Going Concern Audit Opinion

Profitability is the ability of a business to make money and keep running over time. People usually think that businesses with big profits are

financially solid and less likely to go out of business. From an auditing point of view, high profitability makes auditors less likely to doubt a company's capacity to keep running, which makes it less likely that they will get a going concern audit opinion.

Bayu, Soebandi, and Peristiwaningsih (2021) assert that "the higher the level of profitability, the greater the company's ability to generate profits, so auditors tend not to have doubts about the company's business continuity".

Conversely, diminishing profitability indicates financial distress and heighten auditors' concerns regarding uncertainty. Consequently, profitability is anticipated to exert a detrimental influence on the granting of going concern audit opinions.

H3: Profitability has a negative effect on the issuance of going concern audit opinions.

2.4.4 The Impact of Leverage on Going Concern Audit Opinion

Leverage shows how much a business depends on borrowing money to pay for its operations. High leverage raises financial risk because of fixed costs like interest and principal payments, which could hurt cash flow and put the organization at risk of shutting down. When looking at going concern uncertainty, auditors generally see leverage as a key sign of financial trouble.

Tamara and Parasetya (2023) assert that "companies with high leverage levels tend to have a higher risk of financial difficulties, which may prompt auditors to issue a going concern audit opinion". Conversely, Naufal and Durya (2022) discovered that leverage does not significantly influence the issuance of going concern audit opinions, indicating that auditors may evaluate leverage in conjunction with other financial indicators. Even if the results aren't always the same, high leverage is thought to make it more likely

that a company will get a going concern audit opinion.

H4: Leverage has a positive effect on the issuance of going concern audit opinions.

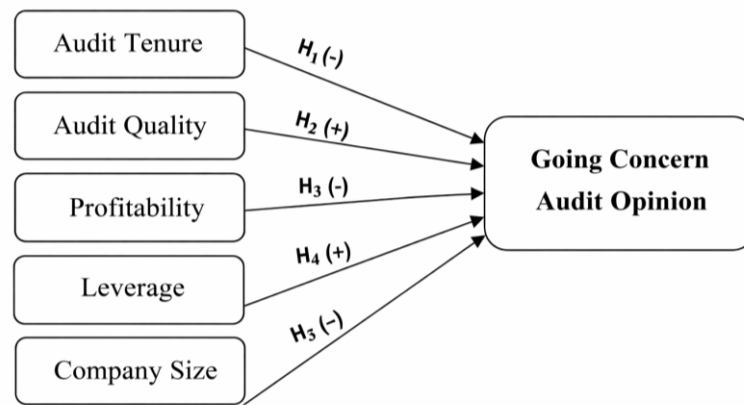
2.4.5 The Impact of Company Size on Going Concern Audit Opinion

The size of a company shows how big its operations are and is typically linked to its financial health and stability. Larger businesses usually do a lot of different things, have better internal control systems, and can get more outside funding, which lowers the risk of going out of business. Because of this, auditors could think that bigger companies are less likely to go out of business than smaller ones.

According to Naufal and Durya (2022), “large companies are considered more capable of maintaining business continuity due to their stronger financial and operational structures”. However, Tamara and Parasetya (2023) discovered that company size does not significantly affect the issuance of going concern audit opinions. These conflicting results indicate that firm size may not only influence auditors’ going concern assessments, but it remains a significant determinant when evaluated alongside other auditing and financial elements.

H5: Company size has a negative effect on the issuance of going concern audit opinions.

2.5 Research Framework



Picture 2.1 Research Framework

CHAPTER III

RESEARCH METHOD

3.1 Type and Approach of Research

This study employs a quantitative methodology utilizing an associative research design. This study employs a quantitative technique to analyze the impact of independent variables on dependent variables through the statistical processing of numerical data. Associative study seeks to ascertain the relationship and influence of audit tenure, audit quality, profitability, leverage, and company size on going concern audit conclusions.

3.2 Population and sample

The research population consists of all manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2022 to 2024. The sampling method used is purposive sampling, following the following criteria:

- a. Manufacturing companies listed on the IDX from 2022 to 2024.
- b. Issued comprehensive audited annual financial reports.
- c. Data for the variables of audit tenure, audit quality, ROA, DAR, and assets were comprehensively available.
- d. Information regarding going concern audit opinions could be categorized into two groups: those that included a going concern paragraph in the auditor's report and those that did not.

Based on these criteria, 221 companies were selected, each monitored for three years (2022-2024), resulting in a total of 663 data points.

3.3 Type and Sources of Data

Secondary data is information obtained from data sources or third parties that have collected and published the data. Secondary data is information collected by others for specific purposes and then used by researchers for their own research.

The secondary data used in this study relates to information about manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2022 to 2024. The data was obtained from two main sources. To determine the population and create a research sample, we first obtained data on manufacturing companies listed on the IDX from the official website of the Indonesia Stock Exchange (www.idx.co.id).

Second, we obtained annual financial reports and independent auditor reports from the Osiris database, which provides complete and standardized financial information on public companies. The secondary data collected in this study includes audited annual financial reports published by manufacturing companies for the period from January 1, 2022, to December 31, 2024, along with independent auditor reports explaining audit opinions, including going concern audit opinions.

This information was used to analyze the dependent variables in this study, namely auditor tenure, audit quality, profitability, leverage, company size, and going concern audit opinions.

3.4 Operational definition of variables

The operational definition of variables seeks to elucidate the measurement methodology for each variable employed in the study, facilitating empirical assessment. There is one dependent variable and five independent factors in this study.

Table 3.1 Dependent Variable and Independent Variables Factors

No	Variable	Operational Definition	Measurement
1	Going Concern Audit Opinion	An audit opinion issued by an auditor when there is significant doubt about the company's ability to continue as a going concern.	Dummy: 1 = Going concern, 0 = Non-going concern
2	Audit Tenure	The length of the working relationship between the auditor and the client, measured by the number of consecutive years the auditor has audited the same company.	Number of audit years
3	Audit Quality	Audit quality that reflects the auditor's ability to detect and report going concern issues.	Dummy: 1 = KAP Big Four, 0 = Non-Big Four
4	Profitability	The company's ability to generate profits from its assets.	Return on Assets (ROA)
5	Leverage	Level of debt usage in corporate financing	Debt to Asset Ratio (DAR)

6	Company Size	The size of the company reflects the scale of the company's business.	Ln Total Assets
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3.5 Data analysis technique

Logistic regression analysis is the data analysis method used in this study. We chose logistic regression because the dependent variable in this study, namely the going concern audit opinion, is dichotomous and measured with a dummy variable (1 = accepts the going concern audit opinion, 0 = does not accept the going concern audit opinion).

Multiple linear regression is not suitable for this study because it requires assumptions of normality of residuals and homoscedasticity, while the dependent variable is categorical rather than continuous. Therefore, logistic regression is more suitable for determining the likelihood of a company receiving a going concern audit opinion based on the financial and audit variables tested.

Data analysis in this study was conducted in the following stages:

a. Descriptive Statistics

Descriptive statistics provide an overview of the characteristics of the research data. This analysis displays the minimum, maximum, mean, and standard deviation for numerical data, as well as the frequency distribution for dummy variables.

Descriptive statistics aim to understand the general characteristics of the sample companies before testing hypotheses and to analyze the distribution of data for each research variable.

b. Multicollinearity Test

A multicollinearity test is performed to ensure that there are no strong relationships between independent variables that could make the regression model less stable.

The multicollinearity test is performed using additional linear regression to obtain Tolerance and VIF values, because logistic regression does not directly display the Variance Inflation Factor (VIF) value.

If the model does not have multicollinearity, it is said to be free of multicollinearity.

- The tolerance value is > 0.10 .
- The VIF value is < 10 .

c. Model Suitability Test (Overall Model Fit)

The model suitability test is conducted to assess whether the logistic regression model built is suitable for use in the study.

The assessment is done by comparing the -2 Log Likelihood (-2LL) value in the initial model (Block 0: Beginning Block) with the -2LL value in the model after all independent variables have been included (Block 1: Method = Enter).

A decrease in the -2LL value from Block 0 to Block 1 indicates that the model with independent variables is better at explaining the dependent variable than the model without independent variables.

d. Hosmer and Lemeshow Test

The Hosmer and Lemeshow test is used to test the goodness of fit of the logistic regression model. This test assesses whether there is a significant difference between the values predicted by the model and the observed values.

Decision criteria:

- If the significance value > 0.05 = the model is declared fit or feasible.
- If the significance value < 0.05 = the model is not fit.

e. Coefficient of Determination Test (Nagelkerke R Square)

In logistic regression, there is no coefficient of determination as in linear regression. Therefore, the Pseudo R-Square value is used, namely Cox & Snell R Square and Nagelkerke R Square.

The Nagelkerke R Square value is used to determine the extent to which the independent variables explain the variation in the dependent variable. The closer the value is to 1, the greater the model's ability to explain the dependent variable.

f. Simultaneous Test (Omnibus Test of Model Coefficients)

A simultaneous test is conducted to determine whether all independent variables collectively influence the audit opinion on business continuity.

Requirements:

- If the significance value is less than 0.05, the model is simultaneously significant.
- The model is not significant if the significance value is greater than 0.05.

This test determines the suitability of the regression model constructed for hypothesis testing.

g. Partial Test (Wald Test)

A partial test is performed to see how each independent variable independently affects the going concern audit opinion.

To perform this test, see the Sig. column in the "Variables in the Equation" table to see the significance value.

Requirements:

- Sig. < 0.05 = the variable has a significant influence.
- Sig. > 0.05 means that the variable does not have a significant influence.

In addition, the Exp(B) value shows the direction and size of the odds ratio for each variable in relation to the possibility of the company obtaining a going concern audit opinion.

3.6 Research Model

The research model used in this study is a logistic regression model, which aims to estimate the probability of a company receiving a going concern audit opinion based on the tested audit and financial variables. This model was chosen because it is able to accommodate dichotomous dependent variables and does not require the assumption of residual normality to be met.

The logistic regression equation in this study is formulated as follows:

$$\ln \left(\frac{GC}{1 - GC} \right) = \alpha + \beta_1 AT + \beta_2 AQ + \beta_3 PROF + \beta_4 LEV + \beta_5 SIZE + \varepsilon$$

Description:

GC = Going Concern Audit Opinion

AT = Audit Tenure

AQ = Audit Quality

PROF = Profitability

LEV = Leverage

SIZE = Company Size

α = Constant

β = Regression coefficient

ε = Error term

This model is used to determine the direction and magnitude of the influence of each independent variable on the probability of receiving a going concern audit opinion.

3.7 Hypothesis Testing

In this research, hypothesis testing was performed via logistic regression analysis with a significance threshold of 5% ($\alpha = 0.05$). This significance level was utilized because to its prevalent application in accounting and auditing studies.

The research hypotheses were evaluated by contrasting the significance value (p-value) of each independent variable against the established significance level. The alternative hypothesis was accepted if the significance value was less than 0.05. This meant that the independent variable had a big impact on the going concern audit opinion. On the other hand, the alternative hypothesis was not accepted if the significance value was higher than 0.05.

The application of logistic regression in evaluating these hypotheses seeks to achieve more precise test outcomes that align with the attributes of the research data, especially in elucidating the likelihood of a company receiving a going concern audit opinion grounded in audit and financial determinants.

CHAPTER IV

DATA AND DISCUSSION

4.1 Overview of Research Objects

This study focuses on manufacturing companies listed on the Indonesia Stock Exchange (IDX). The research will be conducted between 2022 and 2024. The unit of analysis is firm-year, meaning that each company provides one observation per year during the study period. The main model can only use 663 observations after data screening (purposive sampling) and ensuring that all variables are available.

The initial population of this study includes 359 manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2022 and 2024. The initial number of observations per company-year is $359 \times 3 = 1,077$, since the observation period is 3 years. However, after applying purposive sampling criteria that required complete data for all research variables (GC, auditor tenure, audit quality, ROA, DAR, and company size), the final sample met the criteria and included 221 companies. Thus, the total number of analysis units was $221 \text{ companies} \times 3 \text{ years}$, yielding 663 observations.

The dummy variable for the dependent variable is the going-concern (GC) audit opinion, coded 0 for the absence of a going-concern opinion and 1 for its presence. The GC frequency table shows that 610 observations (92.0%) did not receive a GC opinion, while 53 observations (8.0%) did in the analysed sample ($N = 663$). This analysis shows that going concern opinions were relatively rare in the manufacturing sample during the study period. Therefore, the model classification interpretation phase should be carefully reviewed, as the model may appear to show “high accuracy” solely because the data are dominated by category 0. Using the following types of data secondary in the form of annual financial reports and independent audit reports from manufacturing companies listed on the Indonesia Stock Exchange (IDX), for the period 2022-2024. Sampling was conducted using purposive sampling with the following criteria:

Table 4.1 Sample Selection Procedure

No.	Criteria	Total
1	Manufacturing companies listed on the IDX for the 2022-2024 period	359
2	Companies that do not have complete data related to research variables (GC, Audit Tenure, Audit Quality, ROA, DAR, Size)	138
	Number of companies that meet the criteria	221

4.2 Data Analysis Results

4.2.1 Descriptive Statistics

Descriptive statistics describe the basic characteristics of research data, including the minimum, maximum, mean, and standard deviation of each numerical variable. Descriptive statistics are used to describe the basic characteristics of research data, including minimum, maximum, mean, and standard deviation values. According to Pratama et al. (2024), descriptive statistical analysis is very important for understanding the distribution and general patterns of research variables before conducting further statistical tests.

Similarly, Hana and Triani (2024) explain that descriptive statistics help researchers evaluate the overall condition of the sample and provide an initial understanding of the financial characteristics of the companies observed.

The result of descriptive analysis for manufacturing companies in Indonesia during the period 2022-2024 are presented in the following table:

Table 4.2 Descriptive Statistical Test Result

	N	Minimum	Maximum	Mean	Std. Deviation
AT	663	1.00	3.00	1.3288	0.59240
ROA	663	-0.01	0.01	0.0003	0.00122

DAR	663	0.00	1,673.48	6.6631	66.77673
SIZE	663	20.91	33.79	28.6721	1.89337
Valid N (listwise)	663				

Source: Appendix 3

Based on the Descriptive Statistics table (N = 663), the following summary can be concluded:

1. Audit Tenure

The minimum value for Audit Tenure (AT) is 1.00, and the maximum is 3.00. The mean is 1.3288, and the standard deviation is 0.59240. These results indicate that, in most cases, the relationship between companies and auditors/public accounting firms is very short, lasting 1-3 years, in accordance with the operational definition used. This shows that auditor rotation occurs within a relatively short period.

2. Return on Assets (ROA)/Profitability

The average return on assets (ROA) is 0.0003, with a minimum value of -0.01 and a maximum value of 0.01. The standard deviation is 0.00122. The low average indicates that, overall, the companies in the sample are unprofitable, with only a few reporting negative returns on assets.

3. Debt to Asset Ratio (DAR)Leverage

The leverage ratio (DAR) has a minimum value of 0.00, a maximum value of 1,673.48, an average value of 6.6631, and a standard deviation of 66.77673. This wide range indicates the presence of outliers among several companies with very high DAR values. Methodologically, this kind of situation often affects the stability of regression coefficients; therefore, leverage interpretation must be done carefully, and extreme-value truncation (minorizing) or a logarithmic transformation may be necessary in future research.

4. Company Size

Company size (SIZE = Ln Total Assets) varies from 20.91 to 33.79, with an average of 28.6721 and a standard deviation of 1.89337. This indicates that company size may vary significantly, though it remains within a reasonable logarithmic range relative to the asset size of public companies.

This description indicates that the research sample is dominated by organizations that did not receive a going-concern opinion, had a short audit period, reported low profits, incurred large debts, and varied in size. This pattern is significant because, in practice, going concern opinions often depend on a combination of financial performance metrics, funding risks, and the auditor's assessment of the company's going concern (Pratama et al., 2024; Komara, 2024).

4.2.2 Multicollinearity Test

Table 4.3 Multicollinearity Test Result

Independent variables	Tolerance	VIF
Audit Quality (AQ)	0.993	1.007
Audit Tenure (AT)	0.983	1.018
Return on Assets (ROA)/Profitability	0.967	1.035
Debt to Asset Ratio (DAR)Leverage	0.995	1.005
Company Size	0.944	1.059

Source: Appendix 4

Multicollinearity testing assesses whether independent variables are too correlated, thereby disrupting the stability of model coefficient estimates. The Coefficient Table shows that all independent variables have VIF values close to 1 (ranging from 1.005 to 1.059) and have high tolerance values (ranging from 0.944 to 0.995). VIF values below 10 (or 5) and tolerance values above 0.10 indicate the absence of multicollinearity. The variables AQ, AT, ROA, DAR, and SIZE are suitable for inclusion in the model because they have exhibit minimal linear correlation.

Multicollinearity testing is conducted to ensure that the independent variables in the regression model do not have high correlations with each other. According to Janah and Prawestri (2024), multicollinearity can reduce the reliability of

regression results because highly correlated variables can interfere with the estimation of regression coefficients.

In addition, Nafsiyyah et al. (2023) state that a regression model is considered free of multicollinearity if the tolerance value is above 0.10 and the VIF value is below 10.

The Multicollinearity Diagnostic Table shows that the final dimension has a reasonably high Condition Index (39.924). A high condition index can indicate a specific correlation structure. However, given that the VIF/Tolerance is very safe, this finding should be considered an additional warning rather than convincing evidence of disruptive multicollinearity. The model is ready for logistic regression evaluation.

4.2.3 Model Suitability Test (Overall Model Fit)

The model fit test in logistic regression aims to determine whether the independent variables collectively improve the model's ability to predict the dependent variable. According to Meidawati and Dwitama (2023), the Model Coefficient Omnibus Test is often used to assess whether the addition of independent variables significantly improves the explanatory power of the logistic regression model.

If the significance value of the Omnibus Test is less than 0.05, the regression model is considered statistically significant and suitable for further analysis. Individuals generally evaluate the usefulness of logistic regression models from two perspectives:

- a. The Omnibus Test of Model Coefficients evaluates whether models that include predictors outperform models that do not include them.
- b. The Hosmer-Lemeshow tests evaluate the model's fit to the data.

The result of the model suitability test is shown in the following table:

Table 4.4 Model Suitability Test Result (Omnibus Test)

	Chi-square	df	Sig.
Step	42.895	5	0.000
Block	42.895	5	0.000
Model	42.895	5	0.000

Source: Appendix 5

Table 4.5 Model Suitability Test Result (Hosmer and Lemeshow Test)

Chi-square	df	Sig.
41.824	8	0.000

Source: Appendix 6

1. Omnibus Test

The results show a Chi-square value of 42.895, with 5 degrees of freedom and a significance level of 0.000. This indicates that the combined effect of all independent variables improves the model, making it statistically superior to the null model. The combination of audit and financial factors in this study explains why some manufacturing organizations are more likely to receive a going concern opinion than others.

2. Hosmer and Lemeshow Test

The results show a Chi-square value of 41.824, with 8 degrees of freedom and a significance level of 0.000. The model is considered to fit the Hosmer-Lemeshow test if the p-value is greater than 0.05. The model does not meet the Hosmer-Lemeshow fit criteria, as the results indicate a p-value of less than 0.05.

It is essential to analyse these findings critically. In data conditions such as these, significant Hosmer-Lemeshow values often appear. significant imbalance (rare events) between GC=1 and GC=0,

There are significant deviations in the predictors (such as huge DAR), or Basic linear models are insufficient to describe the relationship between the predictor variables and the logits.

The unique characteristics of the industrial sector and the scarcity of opinions on business continuity make it challenging to apply basic logistics models to reflect actual probability distributions accurately. Recent studies show that business continuity is often influenced by various factors, including previous year's opinions, audit report delays, and indicators of difficulty. If these factors are ignored, the model may show poor fit (Meidawati & Dwitama, 2023; Pratama et al., 2024).

4.2.4 Coefficient of Determination Test (Nagelkerke R Square)

In logistic regression analysis, the explanatory power of the model is measured using pseudo R-square values such as Cox and Snell R Square and Nagelkerke R Square. According to Komara (2024), the Nagelkerke R Square value shows the proportion of variation in the dependent variable that can be explained by the independent variables included in the model.

A higher Nagelkerke R Square value indicates that the model has a better explanatory ability in predicting the occurrence of a going concern audit opinion. The result of coefficient of determination test is shown in the following table:

Table 4.6 Coefficient of Determination Test

-2 Log	Cox & Snall R Square	Nagelkerke R Square
326.557	0.063	0.147

Source: Appendix 7

The Nagelkerke R² value of 0.147 indicates that the variables AQ, AT, ROA, DAR, and SIZE collectively explain approximately 14.7% of the variation in the likelihood of a company receiving a going-concern opinion. External factors not included in the model, such as the previous year's audit opinion, increasing distress, cash flow issues, audit report delays, and governance and business risk factors not explicitly measured in this study, account for the remaining variation. This model has moderate explanatory

power. This aligns with the literature on going concern, which shows that various factors affect it (Komara, 2024; Meidawati & Dwitama, 2023).

4.2.5 Simultaneous Test (Omnibus Test of Model Coefficient)

Table 4.7 Simultaneous Test Result

GC	Percentage
0.00	99.7
1.00	1.9

Source: Appendix 8

Simultaneous testing in logistic regression analysis evaluates whether all independent variables collectively influence the dependent variable. Naufal and Durya (2022) explain that the Omnibus Test is used to assess the overall significance of the regression model by comparing the likelihood of a model containing predictors with a null model.

If the significance value is below 0.05, the model is considered statistically significant and capable of explaining the relationship between the independent and dependent variables.

The classification table shows that the model can group observations into GC=0 or GC=1 groups using a threshold of 0.5. The model achieves 608 out of 610 accurate responses (99.7%) when GC=0. For GC=1, the model achieved 1 correct prediction out of 53, resulting in an accuracy of 1.9%. The cumulative percentage is 91.9%.

This indicates that the model is almost unable to identify going concern cases (GC=1), even though the overall accuracy appears high. This indicates a severe imbalance in the data (rare events): the model appears adequate overall, but its performance is poor for the minority class. Therefore, it is more appropriate to analyse the research findings by examining the direction of the coefficients, Wald significance, and odds ratios, rather than relying exclusively on classification accuracy.

4.2.6 Hypothesis Testing (Wald Test)

The Wald test is used to test the individual significance of each independent variable in a logistic regression model. According to Saputra and Hasanah (2024), the Wald statistic determines whether the regression coefficient of an independent variable significantly affects the probability of the dependent variable occurring.

If the significance value is less than 0.05, the variable is considered to have a significant effect on the dependent variable.

Table 4.8 Hypothesis Testing Result

Independent Variables	B	Sig.	Exp(B)
Audit Quality (AQ)	0.454	0.161	1.575
Audit Tenure (AT)	0.142	0.574	1.153
Return on Asset (ROA)	-260.968	0.040	0.000
Debt to Asset Ratio (DAR)	-0.426	0.001	0.653
Company Size	-0.188	0.029	0.829

Source: Appendix 9

1. Audit Quality (AQ)

Audit Quality (AQ) does not significantly affect the acceptance of going concern opinions. The positive coefficient indicates that companies with AQ=1 (according to the coding used) are more likely to accept the going-concern opinion ($\text{Exp(B)} > 1$), but this does not have a significant effect. However, given that the p-value is above 0.05, this trend cannot be considered statistically significant. This finding is important because it suggests that audit quality classifications (such as Big Four versus non-Big Four) may not consistently be a substantial factor in going concern opinions. Auditors may prioritize evidence of fundamental factors such as profitability, debt burden, and cash flow viability. The literature shows mixed results: in some studies, audit quality is significant, while in others it is not, because clients have the freedom to choose their auditors and all public accounting firms use the same auditing techniques (Komara, 2024; Hana & Triani, 2024).

2. Audit Tenure (AT)

The Audit Tenure (AT) does not significantly affect the acceptance of going- concern opinions. The positive coefficient (not significant) indicates that when the audit tenure increases within the measurement range of the study, the probability of receiving a going concern opinion also increases. However, the statistical evidence is insufficient to establish a definite effect. This finding may arise from two conflicting mechanisms: longer tenure increases the auditor's understanding of the client, but it can also erode independence. When these two factors intersect, empirical findings often become insignificant. Research on going-concern factors shows that tenure typically has a minor impact on indicators of difficulty or financial distress (Meidawati & Dwitama, 2023).

3. Return on Asset (ROA)

ROA exerts a substantial negative influence on the adoption of a going-concern opinion. The negative, significant coefficient indicates that as a company's profitability increases, the likelihood of receiving a going-concern opinion decreases. Profitability is an indicator of a company's capacity to generate revenue sufficient to cover its expenses and sustain operations. When profitability declines, auditors have increased justification to scrutinize the business's viability. This study corroborates the widespread claim that companies with reduced earnings or losses are closer to financial difficulty, thereby increasing the risk of going concern (Pratama et al., 2024; Meidawati & Dwitama, 2023). The negligible $\text{Exp}(B)$ value (approaching zero) may result from the small scale of ROA (mean of 0.0003), suggesting that a one-unit change in ROA within the logit model is substantial. This is an additional rationale for why a modest yet consistent ROA can signify strength within the model.

4. Debt to Asset Ratio (DAR)

DAR significantly affects the acceptance of going concern opinions. The relevance ranking shows that leverage is a crucial element in the model. However, we need to discuss the negative orientation of the coefficient further.

High leverage is often associated with debt pressure and default risk, prompting auditors to be more inclined to issue going concern opinions. However, negative results may arise if the data structure shows that companies with high DAR are actually large or established companies that can obtain financing and maintain operations, or if extreme DAR outliers make the coefficient's direction paradoxical. Recent studies within the IDX framework indicate that the effect of leverage on going concern can vary across sectors, periods, and the interactions among other variables (Pratama et al., 2024; Komara, 2024). Therefore, the leverage findings in this study are significant. Still, it should be emphasized that their interpretation must be done in the context of 2022-2024 manufacturing data and the highly diverse characteristics of DAR.

5. Company Size

Company size has a significant negative effect on the acceptance of going concern opinions. The negative coefficient indicates that larger companies (higher Ln total assets) tend to have a lower chance of accepting going concern opinions. This is consistent with the view that large companies have stronger business diversification, access to funding, and restructuring capacity, so auditors are less likely to doubt their business continuity. Recent studies also show that company size often acts as a “protector” from going concern opinions due to operational stability and market reputation (Pratama et al., 2024; Hana & Triani, 2024).

4.3 Discussion of Relationships Between Variables

4.3.1 The Effect of Audit Quality on Going Concern Audit Opinions

The regression results indicate that audit quality is not important. These results may mean that evidence of a company's financial health is more important than the CPA label when making going concern decisions between 2022 and 2024. Based on current auditing standards, going concern evaluation procedures must follow a framework of evidence and professional judgment that is relatively

consistent among auditors. Thus, differences between CPAs do not always lead to differences in going concern decisions. In addition, companies that choose high-quality public accounting firms are often stronger (self-selection), making it difficult to determine the cause. Recent research also shows that audit quality varies, with going concern outcomes influenced by sector, time period, and the presence of control variables such as financial distress and prior-year opinions (Komara, 2024; Hana & Triani, 2024).

4.3.2 The Effect of Audit Tenure on Going Concern Audit Opinions

Audit duration is not important. This often occurs when “auditor knowledge of the client” and “risk of reduced independence” work together. Auditors who have worked with clients for a longer period of time should be more aware of going concern signals because they better understand the client’s risks. However, on the other hand, closeness to clients and following audit routines can make people less skeptical of their work. When these two mechanisms cancel each other out, the statistical results may be meaningless. According to research on going concern determinants, audit variables (audit duration, CPA reputation) often have less influence than financial performance indicators, especially in samples characterized by infrequent going concern events (Meidawati & Dwitama, 2023).

4.3.3 The Effect of Profitability on Going Concern Audit Opinions

Profitability has a significant negative impact, supporting the idea that profitability is essential for a business to remain in operation. When assessing a going concern, auditors will examine whether a business can generate profits and has sufficient cash flow to pay its bills and remain in operation. When a company does not generate enough profits, it is likely to default on payments, breach agreements, or require emergency financing, all of which make business continuity less certain. These results are in line with recent research showing that profitability is often the “most stable” factor in going concern opinions, especially when company size and leverage are also taken into account (Pratama et al., 2024).

4.3.4 The Effect of Leverage on Going Concern Audit Opinions

Profitability has a significant negative impact, supporting the idea that profitability is essential for a business to remain in operation. When assessing a going concern, auditors will examine whether a business can generate profits and has sufficient cash flow to pay its bills and remain in operation. When a company does not generate enough profits, it is likely to default on payments, breach agreements, or require emergency financing, all of which make business continuity less certain. These results are in line with recent research showing that profitability is often the “most stable” factor in going concern opinions, especially when company size and leverage are also taken into account (Pratama et al., 2024).

4.3.5 The Effect of Company Size on Going Concern Audit Opinions

Company size has a significant negative impact on its performance. This reinforces the assumption that large companies generally exhibit greater stability, have assets that are suitable as collateral, can obtain loans more easily, and can undergo restructuring more smoothly. Auditors view large corporations as having better “cushions” against economic challenges, thereby reducing the likelihood of issuing a going concern opinion. Between 2021 and 2024, empirical research generally shows that company size is a factor that reduces the likelihood of a going concern opinion being issued. However, the reliability of this factor depends on other aspects such as leverage, profitability, and industry conditions (Pratama et al., 2024; Hana & Triani, 2024).

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study aims to analyse the factors that influence the issuance of going concern audit opinions in Indonesian manufacturing companies from 2022 to 2024, using a logistic regression approach. The independent variables analysed include audit quality (AQ: Big Four vs Non-Big Four), auditor tenure (AT), profitability (ROA), leverage (DAR), and company size (SIZE: natural logarithm of total assets). The dependent variable is the going concern audit opinion (GC), which is expressed as a binary variable.

Logistic regression analysis (Wald test) yielded the following conclusions:

1. Profitability (ROA) significantly affects the going concern audit opinion. The ROA coefficient is negative and statistically significant (Sig. < 0.05), indicating that higher profitability is associated with a lower probability of a company receiving a going concern opinion. In principle, adequate profits increase the auditor's confidence that the company can maintain its going concern through cash flow generation and fulfilment of operational

responsibilities.

2. Leverage (DAR) has a significant impact on going concern audit opinions. The DAR coefficient is significant (Sig. < 0.05), which means that leverage is an important factor in auditors' decisions to issue going concern opinions. These results indicate that debt-based financing structures, as indicated by DAR, make debt repayment more difficult and increase the risk of default, which makes people more uncertain about the future of the business. These results support the literature that identifies solvency risk as an important element in assessing business continuity.
3. Company size (SIZE) has a significant impact on going concern audit opinions. The SIZE coefficient is significant (Sig. < 0.05), meaning that the larger the company, the less likely it is to receive a going concern opinion. In theory, large companies have more diverse operations, easier access to funding, and better restructuring capabilities, so auditors consider the risk of going concern to be lower.
4. Audit Quality (AQ) does not significantly affect the going concern audit opinion. The audit quality variable, represented by the Big Four versus Non-Big Four dummy, is not statistically significant (Sig. < 0.05). There is no statistical evidence that differences in Big Four and Non-Big Four CPA affiliations directly affect the likelihood of accepting a going concern opinion in the research sample.
5. Audit Tenure (AT) does not significantly affect the going concern audit opinion. The audit duration variable is also not significant (Sig. < 0.05). This indicates that the duration of the auditor-client relationship during the research period was not proven to be a significant factor affecting the issuance of a going concern opinion, after taking into account the company's fundamental conditions (ROA, DAR, SIZE).

In addition, the model feasibility and explanatory power tests produced the following results:

1. The Omnibus Test of Model Coefficients is significant (Sig.=0.000), demonstrating that the independent variables collectively influence the model, hence affirming its effectiveness as a prediction tool overall. These findings correspond with studies utilizing logistic regression to clarify the probability of providing a going concern opinion, based on a combination of audit and financial data.
2. The Nagelkerke R-squared value is 0.147, indicating that the model possesses moderate explanatory power. Approximately 14.7% of the variations in the issuing of going concern opinions can be elucidated by the variables within the model. The other components are attributable to elements not accounted for, including prior year assessments, audit delays, financial instability, debt default, and governance issues.
3. The Hosmer and Lemeshow Test is significant (Sig.= 0.000), indicating that the model fit (goodness-of-fit) remains imperfect. In other words, despite the model's significance (Omnibus), discrepancies persist between the anticipated and observed values in certain group divisions. This finding requires a thorough investigation demonstrating that the model is not yet sufficiently calibrated to consistently represent the going concern probability structure across all data subsets.
4. The overall classification rate is around 91.9%, but you need to read it carefully because the number of companies that receive a going concern opinion (GC = 1) is much lower than those that do not. In cases where the data is imbalanced, high accuracy can occur because the dominant model "guesses" the majority class (GC=0), resulting in low accuracy for the minority class (GC = 1). Therefore, when evaluating classification quality, you need to look at the accuracy for each class, not just the overall accuracy.

5.2 Research Implications

Theoretically, the findings of this study support the idea that going concern audit opinions on Indonesian manufacturing companies for the period 2022-2024 are predominantly influenced by fundamental financial factors rather than specific audit characteristics (Big Four vs Non-Big Four and auditor tenure). The significant impact of profitability (ROA) confirms that a company's ability to generate profits is a crucial indicator of business sustainability. In the context of going concern evaluation, profitability is related to the ability to maintain operations, finance investments, and withstand economic fluctuations, thereby reducing the likelihood of auditors changing the going concern status for companies that demonstrate strong performance. These findings are consistent with research on the determinants of business continuity, showing that profitability is often the main variable that distinguishes between sustainable and unsustainable business continuity.

In addition, the fact that leverage (DAR) reinforces the risk-based perspective in auditing means that auditors will logically pay more attention to heavily indebted companies. Debt is not only a measure of solvency, but it also indicates contract risk, cash flow pressure, and the possibility of restructuring, all of which can make the situation highly uncertain. Recent research also shows that leverage/solvency is a factor that can influence the issuance of going concern opinions, but the results can vary between studies depending on the sector and time period.

Important findings on company size (SIZE) support the idea that company size affects its ability to recover and obtain resources. Auditors tend to be less confident that a company will go bankrupt if it is large, because large companies tend to have more diversified businesses, better access to funding, and better ways to mitigate risk. Some studies also show that company size is not always important. However, in certain situations, such as when the economy is under severe pressure and changing rapidly, company size can be a clear protective factor.

Conversely, findings showing that audit quality (Big Four vs Non-Big Four) is insignificant have theoretical implications suggesting that the appointment of a

public accounting firm does not inherently acknowledge a going concern assessment. This is particularly true when audit standards, professional norms, and examination procedures constrain all auditors, resulting in ambiguous brand-based quality limitations in opinion outcomes. This may indicate that “concrete evidence” of financial distress has a greater influence on business continuity than auditor reputation. Conversely, some studies have determined that audit quality is significant, suggesting that varying results may stem from changes in sample, time period, and proxies.

The insignificance of auditor tenure further reinforces the notion that the duration of the auditor-client relationship is not always critical in determining going concern assessments, especially when other relevant corporate considerations are involved. This is consistent with specific studies suggesting that tenure is insignificant. However, it also contradicts research that considers tenure significant due to issues related to auditor-client closeness and independence. The inconsistency of the data indicates that auditor tenure is a contextual variable influenced by corporate governance, rotation regulations, and industry structure.

From a methodological perspective, the significant Hosmer-Lemeshow result (the model does not fit perfectly) and the imbalance of GC classes have theoretical implications that are often encountered in studies of public data on operating companies, namely “rare events”. In these conditions, the model may be statistically significant (Omnibus), but the model fit is not optimal. Therefore, it is crucial for future research to include additional variables (e.g., previous year’s opinions, financial difficulties, debt defaults, or audit delays) and use more comprehensive model evaluations (e.g., alternative bounds, balanced accuracy testing, or unbalanced data handling techniques) to improve the representativeness of business survival predictions.

5.3 Practice Implication

5.3.1 Implications for Investors and Creditors

This study shows that fundamental indicators such as profitability (ROA),

leverage (DAR), and company size (SIZE) are the most reliable predictors of corporate sustainability for investors and creditors. Return on Assets (ROA) serves as an early indicator for investors that a company is capable of generating profits, which indicates the sustainability of its operations. When ROA is low or declining, investors should investigate the underlying causes of the decline in performance (such as a decline in sales, an increase in interest expenses, or reduced efficiency), as these factors are often associated with higher risks to business continuity.

A high Debt to Assets Ratio (DAR) indicates that a company uses significant debt to finance its assets. In credit decision-making, DAR is very important because it shows the company's ability to meet its obligations, especially in situations of rising interest rates, declining demand, or unexpected price fluctuations. Creditors can implement measures to mitigate risk, such as realistic agreements, risk-adjusted interest rate evaluations, or credit exposure limits for companies with very high Debt to Asset Ratios (DAR).

Company size is also important in real life. Large companies are not always safe, but they are more likely to have more ways to obtain funds and ways to save themselves (such as refinancing, divestment, and restructuring). This means that the chances of obtaining a going concern opinion are lower. Using these indicators together can help investors and creditors create a better early warning system than relying solely on the auditor's reputation.

5.3.2 Implications for Company Management

For management, the findings of this study emphasize that initiatives aimed at reducing the risk of a going concern opinion are insufficient if they focus only on the administrative aspects of auditing. Instead, they should prioritize improving the fundamental conditions of the company. First, management needs to continue to generate profits with a clear plan, such as cutting costs, increasing production capacity, diversifying products, and strengthening the supply chain. This is because auditors typically assess a company's ability to generate long-term profits when evaluating its going concern.

Second, management needs to be clearer in its use of leverage. If the debt-to-equity ratio (DAR) is high, management needs to have a sound plan for its capital structure. This could mean deferring debt payments, renegotiating interest rates, or shifting financing to better instruments. From an audit perspective, reducing uncertainty about business continuity will be more convincing if management can present a viable recovery strategy and supporting evidence of its implementation (e.g., bank support, refinancing commitments, or increased operating cash flow).

Third, regarding company size, small business managers need to compensate for their size with strong governance and risk management plans, such as maintaining cash reserves, improving risk management, and ensuring clear financial reporting. Management can enhance the credibility of business continuity through transparency, cash planning, and consistent risk control, even though SIZE is not a variable that can be “changed quickly”.

5.3.3 What this means for auditors and public accounting firms

The fact that fundamental factors are more important to auditors and public accounting firms shows how important it is to improve risk-based audit procedures in the areas of profitability, solvency, and business continuity. Auditors need to ensure that going concern evaluations are not merely a formality. They need to examine the quality of evidence regarding management plans, refinancing capabilities, cash projections, and how sensitive the company is to adverse situations.

The fact that the difference between the Big Four and Non-Big Four is insignificant does not mean that audit quality is unimportant. It simply means that audit evidence and company conditions, not the public accounting firm label, determine the going concern opinion decision. Therefore, all public accounting firms, both Big Four and non-Big Four, need to be equally cautious when stating that a company is sustainable. This is because the risk of lawsuits and reputational damage is not limited to big names. In practice, auditors need to do a better job of documenting going concern issues and using appropriate quantitative and

qualitative indicators.

5.3.4 Implications for Regulators and Capital Market Authorities

The findings of this study indicate that regulators, including capital market authorities and professional associations, should prioritize improving the integrity of financial reports and discipline in the regulation of public company financing to reduce business continuity risk. During periods of financial difficulty, regulators may encourage the implementation of stricter regulations related to risk disclosure, particularly in terms of debt management, agreements, and strategic plans.

The imperfections of the model (as indicated by the significant Hosmer-Lemeshow test) and the prevalence of business continuity events suggest that the reporting and disclosure system may not sufficiently cover non-financial variables that trigger business continuity problems. Regulators should emphasize the importance of comprehensive information on operational risk, market risk, and indicators of distress, so that readers of financial statements can understand the situation more clearly.

5.4 Recommendations

5.4.1 Recommendations for Further Research in the Academic Environment

Further research is recommended to:

1. To create a more complete model, add variables that are empirically dominant in predicting business continuity, such as opinions from previous years, audit delays, financial difficulties, debt defaults, and governance factors such as independent commissioners and audit committees.
2. Use other methods, such as alternative boundary evaluation, balanced accuracy, or resampling, to address data imbalance issues and create models that are better at detecting business continuity events.

3. Creating better audit quality proxies, such as audit costs, KAP industry specialization, or KAP size based on client portfolio, will enable more precise testing of the role of audit quality.

5.4.2 Practical Recommendations

1. Management should focus on increasing profits and controlling leverage, as these two factors have been shown to have a significant impact on business continuity. Debt restructuring plans, cost-saving measures, and clear operational performance improvements will help reduce business continuity uncertainty.
2. Investors and creditors should use ROA and DAR as the primary measures of business continuity risk and company size as a supporting factor in determining survival capacity.
3. Auditors should strengthen evidence-based going concern evaluation procedures, particularly for companies with high leverage and minimal profits, and ensure adequate documentation of professional judgments, as going concern decisions involve significant reputational risk.

5.5 Research Limitations

There are several things about this study that need to be noted in order to understand the results correctly.

1. Limitations of the model fit (Hosmer-Lemeshow test). The Hosmer-Lemeshow results show that the model is not perfect, suggesting that there are important variables that have been overlooked or non-linear relationships in the logit. Therefore, this model is important, but it does not always work the same way for all probability groups.
2. There is an imbalance in the business continuity variable. The percentage of

businesses that receive a business continuity opinion ($GC = 1$) is usually much lower than the percentage that receive $GC = 0$. In this case, the overall accuracy may be high, but the model may not be able to recognize minority classes well. This means that predictions should be read with caution.

3. The audit quality variable is only represented by the difference between Big Four and Non-Big Four firms. This proxy does not always accurately reflect audit quality, as factors such as audit costs, industry specialization, audit effort, and quality inspection results, which are not always available in public data, also affect audit quality.
4. Not all other variables that are often significant in real life have been included. For example, previous year's audit opinion, audit delays, debt defaults, and financial difficulties are often important factors in business continuity research. The model's ability to explain these factors may be lower without these variables (Nagelkerke R^2 0.147).

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LIST OF ABBREVIATIONS

IAASB = International Auditing and Assurance Standards Board

GC = Going Concern Audit Opinion

AT = Audit Tenure

AQ = Audit Quality

PROF = Profitability

LEV = Leverage

SIZE = Company Size

DAR = Debt to Asset Ratio

ROA = Return on Asset

APPENDIX

Appendix 1 List of Manufacturing Companies in Indonesia

COMPANY NAME	CODE
PT ASTRA INTERNATIONAL TBK	ASII
PT UNITED TRACTORS TBK	UNTR
PT INDOFOOD SUKSES MAKMUR TBK	INDF
PT GUDANG GARAM TBK	GGRM
PT ADARO ENERGY INDONESIA TBK	ADRO
PT SINAR MAS AGRO RESOURCES & TECHNOLOGY TBK	SMAR
PT INDOFOOD CBP SUKSES MAKMUR TBK	ICBP
PT ANEKA TAMBANG TBK	ANTM
PT CHAROEN POKPHAND INDONESIA TBK	CPIN
PT JAPFA COMFEED INDONESIA TBK	JPFA
PT BAYAN RESOURCES TBK	BYAN
PT INDAH KIAT PULP & PAPER TBK	INKP
PT DIAN SWASTATIKA SENTOSA TBK	DSSA

PT BUKIT ASAM TBK	PTBA
PT MEDCO ENERGI INTERNASIONAL TBK	MEDC
PT BARITO PACIFIC TBK	BRPT
PT AKR CORPORINDO TBK	AKRA
PT MITRA ADIPERKASA TBK	MAPI
PT MERDEKA COPPER GOLD TBK	MDKA
PT SEMEN INDONESIA (PERSERO) TBK	SMGR
PT MAYORA INDAH TBK	MYOR
PT UNILEVER INDONESIA TBK	UNVR
PT KALBE FARMA TBK	KLBF
PT ENSEVAL PUTERA MEGATRADING TBK	EPMT
PT INDOMOBIL SUKSES INTERNASIONAL TBK	IMAS
PT CHANDRA ASRI PACIFIC TBK	TPIA
PT WIJAYA KARYA (PERSERO) TBK	WIKA
PT ASTRA AGRO LESTARI TBK	AALI
PT BUMI RESOURCES TBK	BUMI
PT FKS MULTI AGRO TBK	FISH
PT ABM INVESTAMA TBK	ABMM
PT ASTRA OTOPARTS TBK	AUTO
PT INDOCEMENT TUNGGAL PRAKARSA TBK	INTP
PT HARTADINATA ABADI TBK	HRTA
PT GAJAH TUNGGAL TBK	GJTL
PT TUNAS BARU LAMPUNG TBK	TBLA
PT SALIM IVOMAS PRATAMA TBK	SIMP
PT KRAKATAU STEEL (PERSERO) TBK	KRAS
PT PABRIK KERTAS TJIWI KIMIA TBK	TKIM
PT VALE INDONESIA TBK	INCO
PT TEMBAGA MULIA SEMANAN TBK	TBMS
PT INDO-RAMA SYNTHETICS TBK	INDR
PT TEMPO SCAN PACIFIC TBK	TSPC
PT MALINDO FEEDMILL TBK	MAIN
PT GARUDAFOOD PUTRA PUTRI JAYA TBK	GOOD

PT SOLUSI BANGUN INDONESIA TBK	SMCB
PT MULTIPOLAR TBK	MLPL
PT KIRANA MEGATARA TBK	KMTR
PT PETROSEA TBK	PTRO
PT SAWIT SUMBERMAS SARANA TBK	SSMS
PT KIMIA FARMA (PERSERO) TBK	KAEF
PT UNI-CHARM INDONESIA TBK	UCID
PT CENTRAL PROTEINA PRIMA TBK	CPRO
PT CISARUA MOUNTAIN DAIRY TBK	CMRY
PT ULTRAJAYA MILK INDUSTRY & TRADING COMPANY TBK	ULTJ
PT WILMAR CAHAYA INDONESIA TBK	CEKA
PT LAUTAN LUAS TBK	LTLS
PT FAJAR SURYA WISESA TBK	FASW
PT GUNUNG RAJA PAKSI TBK	GGRP
PT AVIA AVIAN TBK	AVIA
PT SUPREME CABLE MANUFACTURING & COMMERCE TBK	SCCO
PT SURYA SEMESTA INTERNUSA TBK	SSIA
PT STEEL PIPE INDUSTRY OF INDONESIA TBK	ISSP
PT NFC INDONESIA TBK	NFCX
PT DHARMA POLIMETAL TBK	DRMA
PT UNGGUL INDAH CAHAYA TBK	UNIC
PT ASAHIMAS FLAT GLASS TBK	AMFG
PT SREEYA SEWU INDONESIA TBK	SIPD
PT RESOURCE ALAM INDONESIA TBK	KKGI
PT SELAMAT SEMPURNA TBK	SMSM
PT ATLAS RESOURCES TBK	ARII
PT SIANTAR TOP TBK	STTP
PT ESTIKA TATA TIARA TBK	BEEF
PT ESSA INDUSTRIES INDONESIA TBK	ESSA
PT PP LONDON SUMATRA INDONESIA TBK	LSIP
PT KINO INDONESIA TBK	KINO

PT MULIA INDUSTRINDO TBK	MLIA
PT SUMI INDO KABEL TBK	IKBI
PT EAGLE HIGH PLANTATION TBK	BWPT
PT CITRA TUBINDO TBK	CTBN
PT NIPPON INDOSARI CORPINDO TBK	ROTI
PT BUDI STARCH & SWEETENER TBK	BUDI
PT JAYA KONSTRUKSI MANGGALA PRATAMA TBK	JKON
PT IMPACK PRATAMA INDUSTRI TBK	IMPC
PT AUSTINDO NUSANTARA JAYA TBK	ANJT
PT J RESOURCES ASIA PASIFIK TBK	PSAB
PT INDO KORDSA TBK	BRAM
PT MITRABARA ADIPERDANA TBK	MBAP
PT JEMBO CABLE COMPANY TBK	JECC
PT INDOPOLY SWAKARSA INDUSTRY TBK	IPOL
PT TRIAS SENTOSA TBK	TRST
PT KMI WIRE AND CABLE TBK	KBLI
PT MULTI BINTANG INDONESIA TBK	MLBI
PT DWI GUNA LAKSANA TBK	DWGL
PT INDOSPRING TBK	INDS
PT ASIA PACIFIC FIBERS TBK	POLY
PT BAKRIE SUMATERA PLANTATIONS TBK	UNSP
PT ARGHA KARYA PRIMA INDUSTRY TBK	AKPI
PT SURYA PERTIWI TBK	SPTO
PT SAMATOR INDO GAS TBK	AGII
PT ORGANON PHARMA INDONESIA TBK	SCPI
PT PANTAI INDAH KAPUK DUA TBK	PANI
PT INTEGRA INDOCABINET TBK	WOOD
PT WISMILAK INTI MAKMUR	WIIM
PT SUPARMA TBK	SPMA
PT ARWANA CITRAMULIA TBK	ARNA
PT GUNAWAN DIANJAYA STEEL TBK	GDST
PT PELAT TIMAH NUSANTARA TBK	NIKL

PT ELECTRONIC CITY INDONESIA TBK	ECII
PT SURYA TOTO INDONESIA TBK	TOTO
PT SEKAR LAUT TBK	SKLT
PT SEKAR BUMI TBK	SKBM
PT SEGAR KUMALA INDONESIA TBK	BUAH
PT WAHANA PRONATURAL TBK	WAPO
PT JASUINDO TIGA PERKASA TBK	JTPE
PT DARYA-VARIA LABORATORIA TBK	DVLA
PT SEMEN BATURAJA TBK	SMBR
PT KEDAWUNG SETIA INDUSTRIAL TBK	KDSI
PT PINAGO UTAMA TBK	PNGO
PT SAT NUSAPERSADA TBK	PTSN
PT KABELINDO MURNI TBK	KBLM
PT WASKITA BETON PRECAST TBK	WSBP
PT AKASHA WIRA INTERNATIONAL TBK	ADES
PT PYRIDAM FARMA TBK	PYFA
PT TOBA PULP LESTARI TBK	INRU
PT FKS FOOD SEJAHTERA TBK	AISA
PT MANDOM INDONESIA TBK	TCID
PT ALKINDO NARATAMA TBK	ALDO
PT EXPLOITASI ENERGI INDONESIA TBK	CNKO
PT POLYCHEM INDONESIA TBK	ADMG
PT ERATEX DJAJA TBK	ERTX
PT CENTRAL OMEGA RESOURCES TBK	DKFT
PT TRISULA INTERNATIONAL TBK	TRIS
PT GARUDA METALINDO TBK	BOLT
PT GEMA GRAHASARANA TBK	GEMA
PT ASIA PACIFIC INVESTAMA TBK	MYTX
PT MADUSARI MURNI INDAH TBK	MOLI
PT TUNAS ALFIN TBK	TALF
PT BUYUNG POETRA SEMBADA TBK	HOKI
MULIA BOGA RAYA TBK, PT	KEJU

PT MULTI INDOCITRA TBK	MICE
PT CAMPINA ICE CREAM INDUSTRY TBK	CAMP
PT INDO ACIDATAMA TBK	SRSN
PT INDONESIA PONDASI RAYA TBK	IDPR
PT DUA PUTRA UTAMA MAKMUR TBK	DPUM
PT INDAL ALUMINIUM INDUSTRY TBK	INAI
PT MERCK TBK	MERK
PT BERLINA TBK	BRNA
PT COLORPAK INDONESIA TBK	CLPI
PT MARK DYNAMICS INDONESIA TBK	MARK
PT CHAMPION PACIFIC INDONESIA TBK	IGAR
PT GOZCO PLANTATIONS TBK	GZCO
PHAPROS TBK., PT	PEHA
PT PRADIKSI GUNATAMA TBK	PGUN
PT DELTA DJAKARTA TBK	DLTA
PT BUMI TEKNOKULTURA UNGGUL TBK	BTEK
PT INOCYCLE TECHNOLOGY GROUP TBK	INOV
PT PELANGI INDAH CANINDO TBK	PICO
PT KERAMIKA INDONESIA ASSOSIASI TBK	KIAS
PT TOBA SURIMI INDUSTRIES TBK	CRAB
PT TRISULA TEXTILE INDUSTRIES TBK	BELL
PT WIDODO MAKMUR PERKASA TBK	WMPP
PT DHARMA SAMUDERA FISHING INDUSTRIES TBK	DSFI
PT RODA VIVATEX TBK	RDTX
PT SEPATU BATA TBK	BATA
PT EKADHARMA INTERNATIONAL TBK	EKAD
PT LANGGENG MAKMUR INDUSTRI TBK	LMPI
PT CHITOSE INTERNASIONAL TBK	CINT
PT BEKASI FAJAR INDUSTRIAL ESTATE TBK	BEST
PT MARTINA BERTO TBK	MBTO
PT LION METAL WORKS TBK	LION
PT MINERAL SUMBERDAYA MANDIRI TBK	AKSI

PT EVER SHINE TEX TBK	ESTI
PT ASIAPLAST INDUSTRIES TBK	APLI
PT INTANWIJAYA INTERNASIONAL TBK	INCI
PT SEPEDA BERSAMA INDONESIA TBK	BIKE
PT SUPER ENERGY TBK	SURE
PT ATELIERS MECANIKES D'INDONESIE TBK	AMIN
PT KURNIAMITRA DUTA SENTOSA TBK	KMDS
PT EMDEKI UTAMA TBK	MDKI
PT YANAPRIMA HASTAPERSADA TBK	YPAS
PT ASIA SEJAHTERA MINA TBK	AGAR
PT MUSTIKA RATU TBK	MRAT
PT ALUMINDO LIGHT METAL INDUSTRY TBK	ALMI
PT TIRA AUSTENITE TBK	TIRA
PT CAHAYAPUTRA ASA KERAMIK TBK	CAKK
PT PRIMA CAKRAWALA ABADI TBK	PCAR
PT SUNSON TEXTILE MANUFACTURER TBK	SSTM
PT SELARAS CITRA NUSANTARA PERKASA TBK	SCNP
PT KAPUAS PRIMA COAL TBK	INAF
PT ANDIRA AGRO TBK	ANDI
PT GRAHA ANDRASENTRA PROPERTINDO TBK	JGLE
PT NUSA PALAPA GEMILANG TBK	NPGF
PT WAHANA INTERFOOD NUSANTARA TBK	COCO
PT MULTI PRIMA SEJAHTERA TBK	LPIN
PT CITATAH TBK	CTTH
PT MEGALESTARI EPACK SENTOSARAYA TBK	EPAC
PT GOLDEN FLOWER TBK	POLU
PT SURYA BIRU MURNI ACETYLENE TBK	SBMA
PT BETONJAYA MANUNGKAL TBK	BTON
PT ARGO PANTES TBK	ARGO
PT SENTRAL MITRA INFORMATIKA TBK	LUCK
PT PRIMARINDO ASIA INFRASTRUCTURE TBK	BIMA
PT LIONMESH PRIMA TBK	LMSH

PT DUTA PERTIWI NUSANTARA TBK	DPNS
PT ALAKASA INDUSTRINDO TBK	ALKA
PT KEDAUNG INDAH CAN TBK	KICI
PT PRASIDHA ANEKA NIAGA TBK	PSDN
PT JOBUBU JARUM MINAHASA TBK	BEER
PT FORTUNE MATE INDONESIA TBK	FMII
PT INTER DELTA TBK	INTD
PT URBAN JAKARTA PROPERTINDO TBK	URBN
PT SLJ GLOBAL TBK	SULI
PT GREEN POWER GROUP TBK	LABA
PT SUMBER ENERGI ANDALAN TBK	ITMA
PT GEOPRIMA SOLUSI TBK	GPSO
PT ENVY TECHNOLOGIES INDONESIA	ENVY
PT INTI AGRI RESOURCES TBK	IIKP
PT WILTON MAKMUR INDONESIA TBK	SQMI
AGRO YASA LESTARI TBK, PT	AYLS
PT TIRTA MAHAKAM RESOURCES TBK	TIRT

Appendix 2 Manufacturing Company Data Recapitulation

CODE	YEAR	GC	AT	AQ	ROA	DAR	SIZE
ASII	2022	0	1	1	0.000572	2.437223208	33.65518758
	2023	0	2	1	0.000468	2.284350783	33.73000510
	2024	0	1	1	0.000623	2.347849615	33.78995793
UNTR	2022	0	1	1	0.000968	2.756399247	32.57607357
	2023	0	1	1	0.000568	2.200633509	32.66815713
	2024	0	1	1	0.000992	2.376825753	32.76375969
INDF	2022	0	1	1	0.000448	2.078478925	32.82638230
	2023	0	2	1	0.000498	2.166527107	32.85992386
	2024	0	3	1	0.000509	2.175462649	32.93786856
GGRM	2022	0	1	1	0.000667	2.884150961	32.11473095
	2023	0	1	1	0.000975	45.06395564	32.15769798

	2024	0	1	1	0.001473	38.63563114	32.07295772
ADRO	2022	0	1	1	0.001337	2.303755202	32.45123920
	2023	0	1	1	0.000216	3.108059488	32.31992189
	2024	0	2	1	0.000566	2.279291306	32.19975413
SMAR	2022	0	1	0	0.00075	1.824210762	31.38289448
	2023	0	2	0	0.00049	1.923822955	31.31278438
	2024	0	3	0	0.000315	1.781257335	31.44505925
ICBP	2022	0	1	1	0.000578	1.993783395	32.37860656
	2023	0	2	1	0.000926	2.086436791	32.41238643
	2024	0	3	1	0.001379	2.136394431	32.46762761
ANTM	2022	0	1	0	0.000576	3.389073643	31.14665582
	2023	0	2	0	0.000371	3.667001493	31.38875778
	2024	0	1	0	0.000062	3.61293052	31.42701905
CPIN	2022	0	1	1	0.001087	2.947231469	31.31608191
	2023	0	2	1	0.001275	2.938651311	31.34388073
	2024	0	3	1	0.001284	3.422711009	31.38734892
JPFA	2022	0	1	1	0.000742	1.717309209	31.11811747
	2023	0	1	1	0.000348	1.710413019	31.16059503
	2024	0	2	1	0.000686	1.915924666	31.17678866
BYAN	2022	0	1	1	0.005984	2.023137607	31.74861118
	2023	0	1	1	0.002269	2.350266819	31.60179034
	2024	0	2	1	0.001839	2.916045462	31.66809360
INKP	2022	0	1	0	0.000602	2.388968006	32.64204182
	2023	0	1	0	0.000346	2.454527736	32.68008514
	2024	0	1	0	0.000318	2.193592176	32.87537197
DSSA	2022	0	1	0	0.000406	1.889157061	32.24741435
	2023	0	2	0	-0.000253	2.281839285	31.48454786
	2024	0	3	0	0.000141	2.109670807	31.71621892
PTBA	2022	0	1	1	0.002628	2.758545452	31.44563429
	2023	0	2	1	0.000952	2.253528937	31.28854377
	2024	0	1	1	0.001614	2.182953253	31.36357232
MEDC	2022	0	1	1	0.000081	1.337073504	32.31218071

	2023	0	2	1	-0.000318	1.372670508	32.37573347
	2024	0	3	1	-0.000069	1.421644747	32.47947990
BRPT	2022	0	1	0	0.000129	1673.481102	32.60048070
	2023	0	2	0	0.000057	1.681038111	32.68250470
	2024	0	1	0	0.000062	1.660088715	32.76369087
AKRA	2022	0	1	1	0.000527	1.937433252	30.93378240
	2023	0	2	1	0.000461	1.866225461	31.04067012
	2024	0	1	1	0.000347	1.791140721	31.13081673
MAPI	2022	0	1	1	0.000244	1.866653164	30.67614414
	2023	0	2	1	-0.000351	1.821686154	30.94581999
	2024	0	1	1	0.000703	1.958651808	31.01626231
MDKA	2022	0	1	0	0.000327	2.09342141	31.73102136
	2023	0	2	0	0.000385	2.256272524	31.96732792
	2024	0	3	0	0.00081	2.256880652	32.06498009
SMGR	2022	0	1	0	0.000256	2.322466342	32.04937982
	2023	0	1	0	0.000345	2.405103001	32.03554929
	2024	0	1	0	0.000365	2.68400712	31.97473669
MYOR	2022	0	1	0	0.000598	2.359396228	30.73453820
	2023	0	2	0	0.001062	2.779404669	30.80366052
	2024	0	3	0	0.001085	2.354502565	31.02313678
UNVR	2022	0	1	1	0.002908	1.279121265	30.53891152
	2023	0	2	1	0.003479	1.254556704	30.44427698
	2024	0	3	1	0.003608	1.154657706	30.40649287
KLBF	2022	0	1	1	0.00132	5.295760769	30.93575580
	2023	0	2	1	0.001276	6.871682769	30.92898787
	2024	0	1	1	0.001305	6.081409264	31.01302643
EPMT	2022	0	1	1	0.000895	3.18628303	29.97305352
	2023	0	1	1	0.00076	2.995022734	30.02489459
	2024	0	1	1	0.000682	2.938137004	30.07227160
IMAS	2022	0	1	1	-0.000053	1.32735813	31.68185027
	2023	0	2	1	-0.000117	1.326113503	31.77276640
	2024	0	3	1	0.00004	1.310514559	31.84517742

TPIA	2022	0	1	0	0.000354	2.324572029	31.97135874
	2023	0	1	0	0.000146	2.14246922	32.09040789
	2024	0	1	0	0.000069	2.075792618	32.14244260
WIKI	2022	0	1	0	0.000017	1.303825991	31.94943686
	2023	0	1	0	0.000029	1.169680501	31.82039151
	2024	0	2	0	0.000377	1.229688256	31.78294792
AALI	2022	0	1	1	0.000678	4.174827747	31.00687813
	2023	0	1	1	0.000304	4.593177455	30.99300088
	2024	0	2	1	0.000078	5.149773848	30.99116123
BUMI	2022	0	1	0	0.000439	2.688195817	31.87746355
	2023	0	1	0	-0.00096	2.943231907	31.80078970
	2024	0	1	0	0.000018	3.204695027	31.83555138
FISH	2022	0	1	1	0.000591	1.569232059	29.60269402
	2023	0	1	1	0.000451	1.572310024	29.65343790
	2024	0	1	1	0.000261	1.50389835	29.75943764
ABMM	2022	0	1	1	0.001588	1.452377552	31.06044422
	2023	0	2	1	-0.000424	1.542959065	31.13363756
	2024	0	1	1	0.000089	1.678783153	31.14898817
AUTO	2022	0	1	1	0.000381	3.386159121	30.54994043
	2023	0	1	1	0.000001	3.865919529	30.60721592
	2024	0	1	1	0.000464	3.864466673	30.67697196
INTP	2022	0	1	1	0.000669	4.187175073	30.87775212
	2023	0	2	1	0.000656	3.415804986	31.02047127
	2024	0	3	1	0.000661	3.662565124	31.04612160
HRTA	2022	0	1	0	0.000615	1.81004583	28.97885698
	2023	0	1	0	0.000666	1.645294562	29.24633443
	2024	0	1	0	0.00078	1.650902512	29.41605527
GJTL	2022	0	1	0	0.000045	1.612847199	30.57630248
	2023	0	2	0	0.000175	1.786147658	30.57418233
	2024	0	1	0	0.00014	1.851392238	30.65454826
TBLA	2022	0	1	0	0.000392	1.405680641	30.79538348
	2023	0	2	0	0.000369	1.463950302	30.88462005

	2024	0	3	0	0.000393	1.43740014	30.95474509
SIMP	2022	0	1	1	0.000278	2.416269682	31.21767627
	2023	0	2	1	0.000067	2.634205765	31.18672200
	2024	0	3	1	-0.000157	2.808953414	31.24861478
KRAS	2022	1	1	1	0.00012	1.211731105	31.52738790
	2023	1	2	1	0.00007	1.211190076	31.41209829
	2024	1	1	1	-0.001466	1.176944442	31.47207154
TKIM	2022	0	1	0	0.000791	2.672517512	31.64163485
	2023	0	1	0	0.000483	2.948436313	31.64874895
	2024	0	1	0	0.000552	3.275288128	31.75888343
INCO	2022	0	1	1	0.000693	8.762942743	31.35366352
	2023	0	2	1	0.000365	8.094900709	31.43869986
	2024	0	1	1	0.000259	7.158340695	31.56500785
TBMS	2022	0	1	1	0.000459	1.839554351	28.37276471
	2023	0	2	1	0.00029	1.87003277	28.41628803
	2024	0	3	1	0.000344	1.958706559	28.51116446
INDR	2022	0	1	0	0.001013	2.14954679	30.23655419
	2023	0	1	0	0.000082	2.022733823	30.16795377
	2024	0	1	0	0.000488	2.043893935	30.15766872
TSPC	2022	0	1	0	0.000879	2.998497481	30.05838464
	2023	0	1	0	0.000902	3.481662589	30.05721498
	2024	0	2	0	0.000682	3.741112155	30.15588453
MAIN	2022	0	1	1	0.000119	1.565146462	29.37969876
	2023	0	1	1	-0.000083	1.633779189	29.33890916
	2024	0	2	1	0.000339	0.001957987269	29.31371801
GOOD	2022	0	1	1	0.000632	1.842934022	29.62263803
	2023	0	1	1	0.000442	2.111045973	29.63623843
	2024	0	1	1	0.000889	1.905091817	29.76302270
SMCB	2022	0	1	1	0.000338	2.2460023	30.69340733
	2023	0	2	1	0.000323	0.2288817141	28.42881611
	2024	0	1	1	0.000261	2.58801349	30.67774836
MLPL	2022	0	1	0	0.000132	1.541194177	30.20230735

	2023	0	1	0	-0.000512	1.56457989	30.20569877
	2024	0	2	0	-0.000534	1.587839096	30.20569877
KMTR	2022	0	1	0	0.000152	1.688480692	29.19938627
	2023	0	1	0	0.000423	1.787851525	29.15334040
	2024	0	1	0	0.000043	1.577478428	29.35444341
PTRO	2022	0	1	0	0.000635	1.998532314	29.85923576
	2023	0	2	0	0.000597	1.478616333	30.04753411
	2024	0	3	0	0.000563	1.404443617	30.26680838
SSMS	2022	0	1	1	0.001138	1.224858405	30.04128592
	2023	0	2	1	0.000468	1.202633836	30.10000539
	2024	0	3	1	0.00001	1.325842366	30.09613674
KAEF	2022	0	1	0	0.000171	1.678512049	30.61656782
	2023	0	1	0	0.00001	1.403143372	30.44227147
	2024	0	1	0	-0.000009	1.297169552	30.33687100
UCID	2022	0	1	1	0.000622	2.604255332	29.75717185
	2023	0	1	1	0.00039	2.902620337	29.76965732
	2024	0	2	1	0.000511	3.102043046	29.78954471
CPRO	2022	0	1	1	0.003459	1.871280058	29.55289278
	2023	0	1	1	0.000618	1.995073087	29.55619460
	2024	0	2	1	-0.000555	2.13735702	29.53407163
CMRY	2022	0	1	1	0.002362	6.449506124	29.45931355
	2023	0	2	1	0.001861	6.374194616	29.58360282
	2024	0	1	1	0.001465	5.690871273	29.73412681
ULTJ	2022	0	1	0	0.001574	4.747630811	29.62930344
	2023	0	1	0	0.001432	8.989323622	29.64911318
	2024	0	2	0	0.001697	8.179602242	29.76653162
CEKA	2022	0	1	1	0.001146	10.2130328	28.17234924
	2023	0	1	1	0.001229	7.535806495	28.26948019
	2024	0	2	1	0.001682	5.005935902	28.50033836
LTLS	2022	0	1	0	0.000467	1.961152117	29.43834861
	2023	0	2	0	0.000132	2.119594198	29.35887120
	2024	0	3	0	0.000296	2.06863049	29.43279428

FASW	2022	0	1	0	0.000498	1.637072313	30.18652959
	2023	0	1	0	0.000317	1.533287166	30.16035477
	2024	0	1	0	0.000892	1.355583159	30.16959262
GGRP	2022	0	1	1	0.000589	3.121048716	30.54690415
	2023	0	1	1	-0.000085	4.039716249	30.57091837
	2024	0	1	1	-0.000187	7.75602277	30.17694544
AVIA	2022	0	1	1	0.001714	8.866081133	30.00983754
	2023	0	1	1	0.0021	8.965881117	30.04398295
	2024	0	1	1	0.001919	7.739845846	30.03444426
SCCO	2022	0	1	0	0.000333	12.90188485	29.26576284
	2023	0	1	0	0.000584	13.578897	29.30433500
	2024	0	1	0	0.000736	17.19308631	29.37186248
SSIA	2022	0	1	0	-0.00026	2.056893011	29.74602842
	2023	0	1	0	-0.000111	2.118323154	29.76124763
	2024	0	1	0	0.000119	4.367556816	29.96968791
ISSP	2022	0	1	0	0.000738	2.270785578	29.63330228
	2023	0	1	0	0.000281	2.377228584	29.70691989
	2024	0	1	0	0.000287	2.551123482	29.74672552
NFCX	2022	0	1	0	0.000973	3.823671198	28.25157343
	2023	0	1	0	0.000175	2.300614715	28.08709094
	2024	0	2	0	0.00038	2.214673103	27.94283843
DRMA	2022	0	1	0	0.001449	2.094767654	28.61795431
	2023	0	2	0	0.000121	2.498159692	28.85053500
	2024	0	3	0	0.001195	2.797158866	28.97688109
UNIC	2022	0	1	1	0.002176	7.450604195	29.22901307
	2023	0	2	1	0.00119	7.475576005	29.27206779
	2024	0	3	1	0.00535	8.312406097	29.33465727
AMFG	2022	0	1	1	0.000415	1.993012929	29.64145014
	2023	0	2	1	-0.000516	2.3008687	29.64601267
	2024	0	1	1	-0.000154	2.617478036	29.61499279
SIPD	2022	0	1	0	0.000056	1.305341012	28.73044108
	2023	0	2	0	0.000056	1.571268163	28.81931291

	2024	0	3	0	0.000342	1.628424355	28.76869257
KKGI	2022	0	1	0	0.001918	3.602131934	28.60517490
	2023	0	2	0	-0.000623	3.276960551	28.75830519
	2024	0	3	0	0.000455	4.343364882	28.84364024
SMSM	2022	0	1	1	0.001828	4.129553201	29.10797326
	2023	0	2	1	0.001505	4.844214687	29.15464359
	2024	0	1	1	0.001955	4.782565005	29.23322069
ARII	2022	0	1	0	-0.000013	1.185560065	29.57470087
	2023	0	1	0	-0.000385	1.155580177	29.72593131
	2024	0	1	0	-0.000097	1.130032718	29.93557041
STTP	2022	0	1	0	0.001676	6.931099216	29.15506188
	2023	0	1	0	0.001986	8.637204564	29.33253391
	2024	0	1	0	0.001751	10.97681978	29.54235567
BEEF	2022	0	1	0	-0.002685	0.6978480944	27.14491709
	2023	0	2	0	-0.004377	1.255621619	27.26043635
	2024	0	1	0	0.000516	1.13553436	28.41719329
ESSA	2022	0	1	0	0.000175	2.717263005	30.19127557
	2023	0	1	0	-0.000227	3.517689179	30.00185659
	2024	0	1	0	0.000029	4.961932658	30.04346830
LSIP	2022	0	1	0	0.000871	8.382476679	30.15008866
	2023	0	1	0	0.000658	10.72558328	30.15788536
	2024	0	1	0	0.000251	10.77025713	30.25872539
KINO	2022	0	1	0	0.000198	1.48808116	29.17354372
	2023	0	1	0	0.000229	1.534649426	29.16710928
	2024	0	1	0	0.001256	1.578865677	29.13540643
MLIA	2022	0	1	0	0.0011	2.929221169	29.54896457
	2023	0	2	0	0.000096	3.408011047	29.57938845
	2024	0	3	0	0.00023	4.172813147	29.58364261
IKBI	2022	0	1	1	-0.000048	2.437524881	28.20717498
	2023	0	1	1	-0.000139	3.476389706	28.15989684
	2024	0	1	1	0.000253	2.79693553	28.34822169
BWPT	2022	0	1	0	-0.001036	1.2014604	30.13438701

	2023	0	2	0	-0.000701	1.27421934	29.95179086
	2024	0	3	0	-0.000712	1.333967831	29.91282987
CTBN	2022	0	1	1	-0.001199	2.645928675	28.36569111
	2023	0	1	1	-0.000202	2.490724205	28.59982890
	2024	0	2	1	0.000202	3.021088656	28.79287263
ROTI	2022	0	1	1	0.000656	2.850142735	29.04937639
	2023	0	2	1	0.000471	2.544062886	29.00309444
	2024	0	1	1	0.000663	2.604900821	28.95180234
BUDI	2022	0	1	0	0.00028	1.83595123	28.78590378
	2023	0	2	0	0.00021	1.916389052	28.83334636
	2024	0	1	0	0.000192	1.736752015	28.97048877
JKON	2022	0	1	0	-0.000087	2.98002385	29.09137548
	2023	0	1	0	0.000112	3.27667734	29.11178670
	2024	0	2	0	0.000409	3.658584254	29.10612680
IMPC	2022	0	1	0	0.000692	2.837486635	28.86517657
	2023	0	1	0	0.000481	2.774516507	29.04331506
	2024	0	2	0	0.000426	1.923514964	29.12784136
ANJT	2022	0	1	1	0.000578	3.376248831	29.86952846
	2023	0	2	1	0.00037	3.253421968	29.87742123
	2024	0	1	1	-0.000068	3.161443247	29.85270594
PSAB	2022	1	1	0	-0.000033	1.891585415	30.16313741
	2023	1	2	0	-0.000064	1.805271923	30.21252388
	2024	1	3	0	0.000003	1.867000979	30.26616946
BRAM	2022	0	1	0	0.000902	4.251754645	29.14125978
	2023	0	2	0	-0.000143	4.10297833	29.15730253
	2024	0	3	0	0.000469	4.387147138	29.18076319
MBAP	2022	0	1	0	0.004574	5.446638554	29.19366424
	2023	0	2	0	0.001467	4.046713185	28.89321448
	2024	0	1	0	0.001928	4.656996778	28.97030880
JECC	2022	0	1	0	-0.00029	1.51546232	28.41938649
	2023	0	1	0	0.00007	1.578954818	28.40219145
	2024	0	2	0	0.000516	1.480408168	28.57094253

IPOI	2022	0	1	0	0.000305	2.733833377	29.10498735
	2023	0	1	0	0.000283	2.652359149	29.10654842
	2024	0	2	0	0.000148	1.908898868	29.41984296
TRST	2022	0	1	1	0.000387	1.972697084	29.38491827
	2023	0	2	1	0.000174	1.722666949	29.24939023
	2024	0	1	1	0.000106	2.001867081	29.30715853
KBLI	2022	0	1	1	0.000327	9.261689875	28.65957033
	2023	0	1	1	-0.000173	7.804805657	28.72173803
	2024	0	2	1	0.001229	9.364256533	28.76889292
MLBI	2022	0	1	1	0.002284	1.466392494	28.84726887
	2023	0	2	1	0.000984	1.690210304	28.85698298
	2024	0	3	1	0.004168	1.619943103	28.86680882
DWGL	2022	0	1	0	0.000967	1.110738534	27.98254732
	2023	0	1	0	0.000454	1.092672773	28.24308807
	2024	0	1	0	-0.000176	1.207599943	28.10102803
INDS	2022	0	1	0	0.000498	4.313322256	28.98749139
	2023	0	1	0	0.000208	4.603973577	29.12603125
	2024	0	2	0	0.000379	5.758575556	29.07930667
POLY	2022	0	1	0	0.000146	0.1945190793	28.89797164
	2023	0	1	0	-0.000869	0.1810850131	28.81018787
	2024	0	1	0	-0.000496	0.09801100929	28.19275744
UNSP	2022	0	1	0	0.000163	0.4325365093	29.14401465
	2023	0	1	0	-0.000962	0.4345659963	29.14828343
	2024	0	2	0	-0.004097	0.3785471571	28.79856227
AKPI	2022	0	1	1	0.000494	1.973825759	28.90932505
	2023	0	2	1	0.000244	1.971928863	28.84044982
	2024	0	3	1	0.000186	2.070869039	28.84123199
SPTO	2022	0	1	0	0.000638	3.089854663	28.76761964
	2023	0	1	0	0.000385	3.211760233	28.80587066
	2024	0	1	0	0.000771	3.247543375	28.85937244
AGII	2022	0	1	0	0.000267	1.806149396	29.70488136
	2023	0	2	0	0.000136	1.916093496	29.68485750

	2024	0	1	0	0.000148	1.896228594	29.71111057
SCPI	2022	0	1	1	0.000845	3.619951988	27.93955473
	2023	0	1	1	0.001448	2.446803865	27.98262618
	2024	0	1	1	0.000738	2.713201517	28.12325785
PANI	2022	0	1	0	0.000003	1.366369177	30.96358030
	2023	0	1	0	0.000019	2.305414387	31.14887514
	2024	0	1	0	-0.000091	2.415639758	31.44616215
WOOD	2022	0	1	0	0.000848	2.176757156	29.57067535
	2023	0	1	0	0.000552	2.286715195	29.66741438
	2024	0	1	0	0.00043	2.330801983	29.69034814
WIIM	2022	0	1	0	0.001008	3.247347146	28.40519230
	2023	0	2	0	0.001182	3.53601649	28.57716457
	2024	0	1	0	0.000213	2.725663708	28.73855855
SPMA	2022	0	1	0	0.001163	2.963769229	28.80635723
	2023	0	1	0	0.000693	3.355927503	28.82613152
	2024	0	1	0	0.000563	3.365743967	28.85264332
ARNA	2022	0	1	1	0.002235	3.458341175	28.57837190
	2023	0	2	1	0.001714	3.423442226	28.59438307
	2024	0	3	1	0.001249	3.395369193	28.60985975
GDST	2022	0	1	0	-0.000402	2.012649662	28.37602356
	2023	0	1	0	-0.000465	2.335010157	28.43218340
	2024	0	1	0	0.000172	1.969222139	28.64461102
NIKL	2022	0	1	0	0.000367	1.438927477	28.74831739
	2023	0	1	0	0.000192	1.696515006	28.36862303
	2024	0	1	0	0.000179	1.703270591	28.40866455
ECII	2022	0	1	0	0.000048	3.388577137	28.18683573
	2023	0	1	0	-0.000115	3.23411784	28.15995849
	2024	0	2	0	0.000176	3.247785736	28.15439061
TOTO	2022	0	1	1	0.000494	3.297681871	28.82644918
	2023	0	2	1	-0.000102	3.393295592	28.83516115
	2024	0	3	1	0.000483	3.48871044	28.86970078
SKLT	2022	0	1	0	0.001017	2.334927775	27.66376849

	2023	0	2	0	0.000544	2.753867828	27.88001899
	2024	0	1	0	0.000585	2.505809196	28.05106291
SKBM	2022	0	1	0	0.000158	2.109200729	28.34504857
	2023	0	1	0	0.000058	2.381871609	28.24058149
	2024	0	1	0	0.000023	2.158950505	28.24154054
BUAH	2022	0	1	0	0.001667	1.802815711	26.56872059
	2023	0	2	0	0.001666	2.09854042	26.55448286
	2024	0	1	0	0.000165	1.934549846	26.69983992
WAPO	2022	0	1	0	-0.00165	3.680926509	25.30316855
	2023	0	1	0	-0.000146	2.174159808	25.60557835
	2024	0	1	0	-0.000303	5.95097125	25.18441370
JTPE	2022	0	1	0	0.000813	2.887224066	28.07803609
	2023	0	1	0	0.000657	2.539931026	28.21311054
	2024	0	1	0	0.001501	2.56813283	28.35180628
DVLA	2022	0	1	1	0.00072	3.318045848	28.32872763
	2023	0	2	1	0.000849	3.202202609	28.34503498
	2024	0	3	1	0.001263	3.033458319	28.40184119
SMBR	2022	0	1	0	0.000085	2.418691918	29.28786250
	2023	0	1	0	0.000019	2.86648069	29.21138662
	2024	0	1	0	0.000054	2.993510661	29.22182384
KDSI	2022	0	1	0	0.000533	2.338449721	27.88505187
	2023	0	1	0	0.000482	3.278925795	27.75192720
	2024	0	1	0	0.000485	3.688872674	27.75501584
PNGO	2022	0	1	0	0.001281	1.841433077	28.06967853
	2023	0	1	0	0.00056	2.150994182	28.02922600
	2024	0	1	0	0.000149	2.21048126	28.19842221
PTSN	2022	0	1	0	0.000384	3.078843407	28.46290653
	2023	0	1	0	0.000332	3.516648781	28.48207638
	2024	0	2	0	0.00004	3.804247754	28.55274857
KBLM	2022	0	1	0	-0.000103	5.715571918	28.04220077
	2023	0	1	0	0.000057	4.80154648	28.09942498
	2024	0	1	0	0.000299	4.029322129	28.26820570

WSBP	2022	0	1	0	-0.002512	0.7392781308	29.41670516
	2023	0	2	0	-0.003466	0.8706616042	29.12911302
	2024	0	1	0	0.000514	0.6990572867	28.91711680
ADES	2022	0	1	0	0.002349	5.295585462	28.12911524
	2023	0	1	0	0.001525	5.867570503	28.36587726
	2024	0	2	0	0.000985	6.152007537	28.62311444
PYFA	2022	0	1	1	0.000106	1.410269807	28.05010550
	2023	0	1	1	0.001054	1.305124539	28.05450257
	2024	0	2	1	0.000495	1.217863655	29.39078937
INRU	2022	0	1	0	0.000013	1.408316801	29.61633577
	2023	0	1	0	0.000079	1.29705753	29.63291598
	2024	0	1	0	-0.000436	1.237905279	29.64186115
AISA	2022	0	1	1	0.000031	1.741887612	28.23334056
	2023	0	2	1	0.006212	2.097971663	28.24620892
	2024	0	3	1	0.006156	2.139541673	28.30609190
TCID	2022	0	1	0	-0.000327	4.527084456	28.49839800
	2023	0	2	0	-0.000398	4.728479605	28.50296971
	2024	0	1	0	0.000581	4.220358371	28.48026944
ALDO	2022	0	1	0	0.000701	1.95213136	28.08133654
	2023	0	2	0	0.000538	1.860021013	28.19160933
	2024	0	1	0	0.000621	2.173240054	28.34724071
CNKO	2022	0	1	0	-0.000633	0.4134892442	27.53218654
	2023	0	1	0	-0.00192	0.4239164196	27.60719137
	2024	0	1	0	0.000556	0.420111746	27.53643666
ADMG	2022	0	1	0	0.000017	6.432882348	28.61578614
	2023	0	1	0	-0.001678	0.004851281965	21.61666740
	2024	0	2	0	-0.001104	3.949956098	28.54777313
ERTX	2022	0	1	0	0.000224	1.425827685	27.83414534
	2023	0	2	0	-0.000139	1.458431866	27.83638528
	2024	0	1	0	0.000126	1.479959535	27.91801857
DKFT	2022	0	1	0	-0.000773	1.193665146	28.49730153
	2023	0	1	0	-0.000633	1.1948785	28.57402922

	2024	0	2	0	-0.000149	1.500338539	28.56350884
TRIS	2022	0	1	0	0.000044	2.528658535	27.79467586
	2023	0	1	0	-0.000096	2.629171627	27.78766948
	2024	0	2	0	0.000007	2.576593041	27.86161407
BOLT	2022	0	1	0	0.000387	2.525049962	27.97125747
	2023	0	1	0	-0.000469	2.844671253	27.92684957
	2024	0	2	0	0.000541	2.720219142	27.97042788
GEMA	2022	0	1	0	0.000126	1.557098524	27.72146117
	2023	0	1	0	0.000013	1.574732623	27.72576047
	2024	0	1	0	0.000265	1.553639387	27.80907072
MYTX	2022	1	1	0	-0.000353	0.9651485195	29.00724090
	2023	1	2	0	-0.000293	0.8831024382	28.94702712
	2024	1	3	0	-0.000633	0.8506500847	28.82594248
MOLI	2022	0	1	0	0.000131	2.960319058	28.27090521
	2023	0	1	0	0.000318	3.017876038	28.33408359
	2024	0	1	0	0.000268	3.341547718	28.28983340
TALF	2022	0	1	0	0.000135	2.942141665	28.21729597
	2023	0	2	0	0.000126	3.356845934	28.18137555
	2024	0	3	0	0.00022	3.04000877	28.23854721
HOKI	2022	0	1	0	0.000128	5.685724212	27.42227795
	2023	0	1	0	0.000433	2.720082482	27.67617705
	2024	0	2	0	0.001291	2.359795212	27.74797839
KEJU	2022	0	1	0	0.002006	5.492530971	27.48031492
	2023	0	1	0	0.001804	5.256027885	27.44273584
	2024	0	1	0	0.00163	4.159260961	27.60473654
MICE	2022	0	1	0	0.000292	2.675322336	27.81008891
	2023	0	1	0	0.000026	3.032071858	27.91543538
	2024	0	1	0	0.000319	2.889219538	27.98071650
CAMP	2022	0	1	0	0.000896	8.061429752	27.70313474
	2023	0	2	0	0.000411	8.000226443	27.71602950
	2024	0	3	0	0.000745	7.309138478	27.71091639
SRSN	2022	0	1	0	0.0003	4.01632372	27.49931925

	2023	0	2	0	0.000524	4.142658351	27.56562660
	2024	0	1	0	0.000584	2.860947514	27.75803166
IDPR	2022	0	1	0	-0.000913	1.691817163	28.06442047
	2023	0	2	0	-0.002202	1.648824393	28.14912001
	2024	0	1	0	-0.000045	1.831605887	28.03372402
DPUM	2022	0	1	0	-0.000557	0.1740161443	25.63207414
	2023	0	2	0	-0.00228	1.559305731	27.81352331
	2024	0	1	0	-0.001705	1.496316085	27.80355548
INAI	2022	0	1	0	0.000029	1.236601897	28.07236545
	2023	1	2	0	0.000031	1.227710482	28.02094802
	2024	1	1	0	0.000257	1.187619673	27.84700558
MERK	2022	0	1	0	0.001346	3.700522648	27.66797700
	2023	0	2	0	0.000785	5.914794424	27.58791956
	2024	0	3	0	0.000723	6.393935898	27.58700311
BRNA	2022	1	1	0	-0.000943	1.624554194	28.25693798
	2023	1	1	0	-0.000783	1.595739352	28.17421516
	2024	1	1	0	-0.000677	1.822443211	28.41326354
CLPI	2022	0	1	1	0.000603	3.196687041	27.35638114
	2023	0	1	1	0.000541	3.517161234	27.37806539
	2024	0	2	1	0.000516	3.510572829	27.40994754
MARK	2022	0	1	0	0.004361	6.221828823	27.63637512
	2023	0	1	0	0.002481	8.537978438	27.58135883
	2024	0	1	0	0.002318	10.06733993	27.58585743
IGAR	2022	0	1	1	0.000993	11.2585706	27.48442018
	2023	0	1	1	0.000688	11.80708408	27.53539947
	2024	0	2	1	0.000734	12.48447003	27.60229705
GZCO	2022	0	1	0	0.000065	2.290837126	28.34661742
	2023	0	1	0	-0.000888	2.22985321	28.38158779
	2024	0	2	0	-0.002384	2.131022535	28.47312436
PEHA	2022	0	1	0	0.000059	1.746101758	28.22229113
	2023	0	1	0	0.000242	1.619767606	28.20127086
	2024	0	1	0	0.000515	1.379126148	27.98872308

PGUN	2022	0	1	0	0.000153	2.556229929	28.48437955
	2023	0	1	0	-0.00054	2.684350647	28.58324889
	2024	0	1	0	-0.000157	3.118710106	28.60149643
DLTA	2022	0	1	0	0.001484	4.26612782	27.89889813
	2023	0	1	0	0.000936	0.004414810565	20.91227333
	2024	0	1	0	0.002156	4.168056064	27.74272096
BTEK	2022	1	1	0	-0.000254	1.409275296	29.05220949
	2023	1	1	0	-0.001108	1.375340723	29.03115697
	2024	1	1	0	-0.00165	1.134778374	28.99047410
INOV	2022	0	1	1	0.000324	1.414996501	27.63059300
	2023	0	2	1	-0.000124	1.361116078	27.62914607
	2024	0	1	1	0.000357	1.438903375	27.65704799
PICO	2022	0	1	0	-0.000446	1.243654612	27.64579949
	2023	0	1	0	-0.00058	1.385905361	27.32455615
	2024	0	1	0	0.000076	1.412036791	27.29250101
KIAS	2022	0	1	1	-0.000061	5.006993788	27.69482145
	2023	0	2	1	-0.000482	6.51886946	27.59889632
	2024	0	1	1	-0.003238	5.227391568	27.61458783
CRAB	2022	1	1	0	0.000247	2.307890401	26.48053743
	2023	1	1	0	0.000064	2.267581318	26.57124229
	2024	1	1	0	0.000191	3.872724736	26.41206687
BELL	2022	0	1	0	0.000045	1.988987363	26.98815054
	2023	0	2	0	-0.00028	2.001721216	26.99622085
	2024	0	1	0	0.000363	1.869246351	27.09198024
WMPP	2022	1	1	0	0.000539	1.527815347	29.43444874
	2023	1	1	0	0.000228	1.321555265	29.24178626
	2024	1	1	0	0.000384	1.174728416	29.17032231
DSFI	2022	0	1	0	0.00038	2.530231192	26.69119049
	2023	0	1	0	-0.000152	2.552243106	26.74400084
	2024	0	2	0	0.000212	2.62469673	26.78847067
RDTX	2022	0	1	0	0.000641	8.166355878	28.85106046
	2023	0	1	0	0.000819	6.197280429	28.86658940

	2024	0	1	0	0.000875	8.445071082	28.86854649
BATA	2022	1	1	1	-0.000717	1.790904332	27.30815938
	2023	1	2	1	-0.00217	1.289069107	27.09614155
	2024	1	3	1	0.000269	0.9622216649	26.72878389
EKAD	2022	0	1	0	0.000929	11.2615186	27.83093034
	2023	0	1	0	0.000912	12.5347446	27.85197483
	2024	0	2	0	0.00081	12.56303764	27.88936449
LMPI	2022	1	1	0	-0.000205	1.421775843	27.26615222
	2023	1	1	0	-0.000576	1.360543486	27.22750877
	2024	1	1	0	-0.000547	1.255107524	27.25240312
CINT	2022	0	1	0	-0.001996	2.936081861	26.77872185
	2023	0	1	0	0.000021	2.906219574	26.82197754
	2024	0	1	0	0.00014	3.416361562	26.78382924
BEST	2022	0	1	0	-0.000115	3.473480589	29.43577396
	2023	0	2	0	-0.000182	3.777955658	29.41274782
	2024	0	3	0	0.000599	4.159180806	29.39355917
MBTO	2022	1	1	0	-0.001765	2.277339884	27.30488038
	2023	0	1	0	-0.002582	2.213875914	27.23538457
	2024	0	2	0	-0.001081	2.216781048	27.22961781
LION	2022	0	1	0	-0.000131	3.264439276	27.25195138
	2023	0	2	0	-0.000143	2.953786862	27.33380959
	2024	0	1	0	0.000013	3.351055544	27.29439170
AKSI	2022	0	1	0	0.000842	1.942833135	26.62631174
	2023	0	1	0	0.000103	2.418323174	26.49580969
	2024	0	1	0	0.000149	2.307617597	26.42015851
ESTI	2022	0	1	0	0.000305	1.430836076	27.34353385
	2023	0	2	0	-0.0001	1.480713001	27.34328884
	2024	0	3	0	-0.000454	1.537123637	27.35565150
APLI	2022	0	1	1	0.000555	2.471382041	26.87289133
	2023	0	1	1	-0.000155	3.131076509	26.91870521
	2024	0	1	1	0.000208	3.83833972	26.86445853
INCI	2022	0	1	0	0.000231	6.275431346	26.92986300

	2023	0	2	0	0.000707	8.800778007	26.92289811
	2024	0	1	0	0.000347	8.573798466	26.97420342
BIKE	2022	0	1	0	0.002563	5.21837287	25.72436367
	2023	0	1	0	0.006628	2.001768031	26.27317815
	2024	0	1	0	0.000901	1.625128395	26.53536897
SURE	2022	0	1	0	-0.000542	1.891188704	27.59163811
	2023	0	1	0	-0.000195	1.890764835	27.61466765
	2024	0	1	0	0.000117	1.320635748	27.81552883
AMIN	2022	0	1	0	0.000116	1.912907084	26.50108076
	2023	0	1	0	-0.001481	1.935489091	26.58071850
	2024	0	1	0	0.000248	2.508091131	26.43537271
KMDS	2022	0	1	0	0.003477	4.835988519	26.17568281
	2023	0	1	0	0.001308	6.530164494	26.22515402
	2024	0	1	0	0.004571	7.208480967	26.32198797
MDKI	2022	0	1	0	0.000395	9.894230496	27.67592660
	2023	0	1	0	0.00042	10.68414661	27.69357047
	2024	0	1	0	0.000353	15.92294148	27.67023318
YPAS	2022	0	1	0	-0.000355	1.710255549	26.39487057
	2023	0	2	0	0.000301	1.872256337	26.34232119
	2024	0	1	0	0.000115	1.719182731	26.41623171
AGAR	2022	0	1	0	0.000096	2.157037899	26.01709796
	2023	0	1	0	-0.000042	2.189180776	26.00603749
	2024	0	1	0	0.000028	2.086297276	26.07846116
MRAT	2022	0	1	0	0.000006	2.451632917	27.26686195
	2023	0	1	0	-0.000125	2.729931474	27.17564177
	2024	0	1	0	0.000003	3.343551341	27.43066068
ALMI	2022	1	1	0	0.000004	1.838501773	27.76668237
	2023	1	2	0	-0.001679	1.664652098	27.50538314
	2024	1	3	0	-0.001378	1.39004747	26.82782024
TIRA	2022	0	1	0	-0.000097	1.911357853	26.58431250
	2023	0	1	0	0.000069	1.942543364	26.56948235
	2024	0	1	0	0.000037	1.88848526	26.61691686

CAKK	2022	0	1	0	0.000309	2.292015367	26.82799227
	2023	0	1	0	0.000004	1.756271284	26.86750039
	2024	0	1	0	0.000063	1.608244611	26.91418259
PCAR	2022	0	1	0	0.00012	2.469524149	25.35614611
	2023	0	1	0	-0.0014	2.771766916	25.37295823
	2024	0	1	0	-0.000847	3.4442083	25.24729308
SSTM	2022	0	1	0	0.001191	2.17295085	26.81481700
	2023	0	1	0	-0.000308	2.254590401	26.77267140
	2024	0	2	0	-0.000302	2.236682303	26.70859111
SCNP	2022	0	1	0	-0.000118	5.038349641	26.90170246
	2023	0	1	0	-0.000294	7.290209961	26.73851314
	2024	0	1	0	0.000491	8.718692189	26.74285651
INAF	2022	1	1	0	0.000465	1.45402099	28.53764691
	2023	1	1	0	0.000219	1.400520336	28.58776896
	2024	1	1	0	0.001301	1.340571274	28.51463319
ANDI	2022	0	1	0	-0.000065	2.161434498	26.81956409
	2023	0	1	0	-0.00021	1.935227012	26.65851725
	2024	0	1	0	0.000243	1.839253511	26.58165765
JGLE	2022	0	1	0	-0.000319	3.359803088	28.11402549
	2023	0	1	0	-0.000331	3.603735246	28.06242814
	2024	0	1	0	-0.000306	3.53312203	28.04856762
NPGF	2022	0	1	0	0.00013	1.880697813	26.63123708
	2023	0	1	0	0.000175	6.834242015	26.33007832
	2024	0	1	0	0.000246	3.965775272	26.47595626
COCO	2022	0	1	0	0.000269	1.727639706	26.90752691
	2023	0	2	0	0.000106	1.398045231	26.99417815
	2024	0	3	0	0.000385	1.28701175	26.80952932
LPIN	2022	0	1	0	0.000722	10.3246051	26.54466226
	2023	0	2	0	0.000203	14.84021768	26.55401875
	2024	0	3	0	0.000955	12.13854292	26.64280689
CTTH	2022	0	1	0	-0.000317	1.320331354	27.29171231
	2023	0	2	0	-0.000578	1.391016542	27.34551503

	2024	0	1	0	-0.000346	1.351352007	27.32094741
EPAC	2022	1	1	0	0.000065	1.634270093	26.41454692
	2023	1	1	0	0.000113	1.43434921	26.37099801
	2024	1	2	0	0.000092	1.386930047	26.30906813
POLU	2022	0	1	0	-0.002123	2.603905468	26.06721583
	2023	0	1	0	-0.000195	2.770807417	25.97114771
	2024	0	1	0	0.000273	2.585497196	26.04472103
SBMA	2022	0	1	0	0.000333	4.606009932	26.32022766
	2023	0	1	0	0.000329	4.547602072	26.34431835
	2024	0	2	0	0.000369	4.671158637	26.39306419
BTON	2022	0	1	0	0.000381	3.239863685	26.56551375
	2023	0	1	0	0.000193	3.46475157	26.61384060
	2024	0	1	0	0.000061	3.389262292	26.70645557
ARGO	2022	1	1	0	-0.000283	0.4496635125	27.75278194
	2023	1	1	0	-0.000619	1.135861826	27.71860674
	2024	1	1	0	-0.00084	1.122071008	27.74464640
LUCK	2022	0	1	0	0.000019	4.55432798	25.88654961
	2023	0	2	0	-0.000169	4.593480516	25.88580088
	2024	0	1	0	0.000418	5.154625064	25.81629719
BIMA	2022	0	1	0	-0.000916	1.386631034	26.46133000
	2023	0	1	0	-0.00134	1.341891655	26.46944400
	2024	0	1	0	0.000177	1.258939673	26.49093426
LMSH	2022	0	1	0	0.000451	6.355625696	25.60908493
	2023	0	2	0	-0.00055	6.129299487	25.55281675
	2024	0	1	0	-0.00118	5.624846768	25.50328033
DPNS	2022	0	1	0	0.000703	5.357727101	26.72882023
	2023	0	2	0	0.00012	22.70997653	26.57273122
	2024	0	1	0	0.000161	15.77660695	26.60380442
ALKA	2022	0	1	0	0.00041	1.403730508	27.18309642
	2023	0	1	0	0.000141	2.585850757	26.55145756
	2024	0	2	0	0.000115	18.18361173	26.13600800
KICI	2022	0	1	0	0.001266	2.704948937	25.92544423

	2023	0	2	0	-0.000001	2.564857204	25.91759471
	2024	0	1	0	-0.000207	2.109413518	26.00847364
PSDN	2022	0	1	0	-0.001203	1.058695797	27.28234292
	2023	0	2	0	-0.000811	1.769370784	25.74697170
	2024	0	3	0	-0.000648	1.465577226	25.70936378
BEER	2022	0	1	0	0.00247	3.24108383	24.98744923
	2023	0	2	0	0.000426	16.55277794	26.23721443
	2024	0	3	0	-0.000927	12.54728077	26.25778514
FMII	2022	0	1	0	0.000098	7.463875079	27.34715289
	2023	0	1	0	-0.000017	6.922292758	27.38554940
	2024	0	1	0	0.00003	7.960560377	27.37910474
INTD	2022	0	1	0	0.000696	11.50323026	24.50957100
	2023	0	1	0	-0.00122	15.20254818	24.47144531
	2024	0	1	0	0.000146	15.52641174	24.43106025
URBN	2022	1	1	0	0.000177	1.902927125	29.08258955
	2023	1	1	0	0.000271	1.984161042	29.05056894
	2024	1	1	0	0.000602	1.981433576	29.05329032
SULI	2022	0	1	1	0.000394	1.567937697	27.58815154
	2023	1	2	1	-0.002215	1.203404439	27.42818349
	2024	1	1	1	-0.000897	1.562286063	27.32723907
LABA	2022	0	1	0	0.003398	8.696526587	24.91698266
	2023	0	2	0	0.000574	15.00904359	24.79425775
	2024	0	1	0	0.000653	2.798226478	25.25611914
ITMA	2022	0	1	0	0.000714	22.69955237	28.85818385
	2023	0	2	0	0.000805	15.02154116	28.88091818
	2024	0	1	0	0.000837	6.820173306	29.02684859
GPSO	2022	0	1	0	-0.0006	5.595137267	24.83605900
	2023	0	1	0	-0.000205	5.479104785	24.85961566
	2024	0	1	0	0.002567	5.492943263	24.74323519
ENVY	2022	0	1	0	-0.012871	0.7555947796	24.28885114
	2023	0	1	0	-0.000722	0.269084738	23.45964940
	2024	0	1	0	0.000282	0.2449789602	23.51262343

IHKP	2022	1	1	0	-0.001362	9.943261121	26.25138157
	2023	1	2	0	-0.001141	9.097890419	26.09457988
	2024	1	1	0	0.002506	8.533353069	25.99841817
SQMI	2022	0	1	1	-0.000414	1.508805531	26.88912212
	2023	0	1	1	-0.000798	1.259128696	26.95581482
	2024	1	1	1	-0.000945	1.05189978	27.00924856
AYLS	2022	0	1	0	0.000277	29.90603401	24.59181175
	2023	0	1	0	-0.000638	28.92540036	24.55302593
	2024	0	1	0	0.000085	402.8329444	24.47245298
TIRT	2022	0	1	0	-0.003735	0.2951993222	26.25308387
	2023	1	1	0	-0.006423	0.2538047123	26.09938861
	2024	1	2	0	-0.000569	0.2102601817	25.91559665

Appendix 3 Descriptive Statistics Test Result

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
AT	663	1.00	3.00	1.3288	.59240
ROA	663	-.01	.01	.0003	.00122
DAR	663	.00	1673.48	6.6631	66.77673
SIZE	663	20.91	33.79	28.6721	1.89337
Valid N (listwise)	663				

Appendix 4 Multicollinearity Test Result

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	AQ	.454	.324	1.966	1	.161	1.575
	AT	.142	.253	.316	1	.574	1.153
	ROA	-260.968	126.802	4.236	1	.040	.000
	DAR	-.426	.131	10.584	1	.001	.653
	SIZE	-.188	.086	4.777	1	.029	.829
	Constant	3.639	2.397	2.303	1	.129	38.037

a. Variable(s) entered on step 1: AQ, AT, ROA, DAR, SIZE.

Appendix 5 Model Suitability Test Result (Omnibus Test)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AT	663	1.00	3.00	1.3288	.59240
ROA	663	-.01	.01	.0003	.00122
DAR	663	.00	1673.48	6.6631	66.77673
SIZE	663	20.91	33.79	28.6721	1.89337
Valid N (listwise)	663				

Appendix 6 Model Suitability Test Result (Hosmer and Lemeshow Test)

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	41.824	8	.000

Appendix 7 Coefficient of Determination Test Result (Nagelkerke R Square)

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	326.557 ^a	.063	.147

a. Estimation terminated at iteration number 10 because parameter estimates changed by less than .001.

Appendix 8 Simultaneous Test Result (Omnibus Test of Model Coefficient)

Classification Table^a

		Predicted		
		GC		Percentage Correct
		.00	1.00	
Step 1	Observed GC .00	608	2	99.7
	1.00	52	1	1.9
	Overall Percentage			91.9

a. The cut value is .500

Appendix 9 Hypothesis Testing Result (Wald Test)

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	AQ	.454	.324	1.966	1	.161	1.575
	AT	.142	.253	.316	1	.574	1.153
	ROA	-260.968	126.802	4.236	1	.040	.000
	DAR	-.426	.131	10.584	1	.001	.653
	SIZE	-.188	.086	4.777	1	.029	.829
	Constant	3.639	2.397	2.303	1	.129	38.037

a. Variable(s) entered on step 1: AQ, AT, ROA, DAR, SIZE.