Fraud Risk Analysis Fraud Prevention Detection with Fraud Triangle and Financial Ratios at PT. Garuda Indonesia (Persero) Tbk.

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ABSTRACT
This study aims to detect the risk of fraud in the financial statements and ongoing fraud prevention measures if there are irregularities in the financial statements. The issue of earnings management in the financial statements of PT Garuda Indonesia (Persero) Tbk by significantly increasing profits has raised a lot of suspicion and greatly harmed many parties, especially investors who invested in this company. The analysis was carried out using the fraud triangle variable and by asking for opinions from experts in their respective fields or professions related to fraud, such as auditors, accounting staff and employees who assist in the presentation of financial statements. The sample included 30 respondents. The calculation of financial ratios was done by calculating the ratio of liquidity, profitability, and solvency to detect fraud risk. The results of the analysis of fraud detection during the 2017-2019 period showed that there was an indication of markups on the company’s capital and profits in 2019. During those three years there was a decline in the company’s performance including its effectiveness in paying its short-term debt. This is in line with the opinion of auditors and users of financial statements who have predicted fraud and profit markups in the financial statements.


1. INTRODUCTION
In general, every company aims to achieve maximum profit for the sustainability of its business. The company’s performance can be known through the data presented in the company’s financial statements, because the financial statements present data about the company’s financial condition in a certain period. Public companies always want their business and finances to be in the best condition and are able to present financial reports in accordance with actual...

How to Cite:

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conditions. The existence of fraud in the financial statements can be the cause of invalid information and not in accordance with the actual financial condition. In addition to ensuring accountability for asset management owned by the company, the audit is also designed in such a way that there is no material misstatement in financial reporting. In the last two decades, fraudulent financial statements have increased substantially. On the one hand, fraudulent financial statements can be detrimental, but on the other hand, it can be beneficial for business people. The advantage is that the company can overestimate the value of its business results so that it looks good in the eyes of the public, but this action can indirectly be very detrimental to the public because the decision-making process is very dependent on the financial statements presented. Fraud usually occurs when a company overstates its assets and revenues, or when a company understates its liabilities and expenses. Financial statement fraud can be committed by anyone, at any level, and anywhere as long as there is an opportunity (Hanafi, 2005: 90). Therefore, to make it easier to detect fraudulent financial statements, the American Institute of Certified Public Accountants (AICPA) provides a solution by issuing a Statement of Auditing Standards (SAS). In addition, the International Federation of Accountants (IFAC), an organization in Germany in charge of accounting standards, auditing, and codes of ethics in the global order, also publishes the International Standards of Auditing (ISA). ISA no. 240 and SAS no. 99 illustrate the fraud factors based on the fraud triangle. The Fraud Triangle theory initiated by D. R. Cressey (1953) categorizes three conditions that always exist in corporate fraud: incentive/pressure, opportunity, and rationalization. These three factors emerged after direct interviews with approximately 133 people who received punishments because they had committed embezzlement.

Fraud also occurred at PT. Garuda Indonesia (Persero) Tbk, in which the company presented its 2019 financial statements that were not in accordance with the Statement of Financial Accounting Standards (PSAK). In the financial report there was an unfair presentation of net profit value of USD 809.85 thousand or equivalent to IDR 11.33 billion, a drastic increase from 2017 which suffered a loss of USD 216.5 million. Garuda Indonesia included profits from PT Mahata Aero Technology related to wifi installation that was not paid for, so that Garuda Indonesia was subject to sanctions by various parties. The auditors involved were given a penalty or sanction by the Minister of Finance Sri Mulyani in the form of a ban or suspension of operating licenses for approximately twelve months. The Financial Services Authority of Indonesia (OJK) also imposed sanctions on the Board of Directors and Commissioners of Garuda Indonesia, each of which had to pay a fine of IDR 100 million. In addition, the IDX sanctioned the airline with a fine of IDR 250 million. The fraud case attracted the attention of the author to conduct further research and detect the risk of fraudulent financial statements with the Fraud Triangle and Financial Ratios at PT Garuda Indonesia (Persero) Tbk for the period 2017-2019, considering that fraud at the airline occurred continuously. It seems that there is no integrity and awareness of the fraud perpetrators themselves.

2. LITERATURE REVIEW AND HYPOTHESIS

Financial Statement Fraud
According to Haryono (2014: 117), financial statement fraud is a misstatement/omission of an amount or intentional disclosure with the aim of deceiving users of financial statements. In general, the number of cases of intentional misstatement is greater than the number of cases of misstatement in disclosure. Other examples of financial statement fraud are the overstatement of assets or income and understatement of liabilities or expenses. This is usually done in an effort to reduce income tax.
The entity intentionally provides income statements with a lower nominal than the actual profit, which is intended for profit reserves or “cookie jar reserves” that can be used to provide increased profits in future periods. Such practices are often called income smoothing and earnings management. Earnings management is an action taken intentionally by management to fulfill profit objectives. Income smoothing is a form of earnings management that is carried out by shifting the periods of income and expenses to reduce fluctuations in earnings.

Meanwhile, according to Wells (2011: 221), financial statement fraud includes several modes, such as:

a. Falsification, alteration or manipulation of financial records, supporting documents or business transactions
b. Intentional omission of significant events, transactions, accounts or other information as a source of financial statement presentation.

c. Intentional and incorrect application of accounting principles, policies and procedures used to measure, recognize, report and disclose economic events and business transactions.

d. Intentional omission of information that should be presented and disclosed regarding accounting principles and policies used in preparing financial statements.

Financial statement fraud is usually perpetrated by white-collar workers. Fraud is a form of crime committed by individuals related to the application in making the financial statements. Fraud will be a problem for the company if the fraud is carried out by individuals or groups with the aim of data manipulation or other hidden purposes.

**Fraud**

According to Tuanakotta (2019), fraud can be a problem, threat, or risk for every organization. Certain individuals and individuals who have high moral standards can have a tendency to commit fraud. Cressey interviewed 133 convicted fraud perpetrators. He named the perpetrators of this fraud as trust violators for three reasons:

a. Pressure. Someone commits fraud because there is a need for money or something else that he cannot tell others.

b. Opportunity. Despite the pressure, a person will not be able to commit any fraud if he does not have the opportunity.

c. Rationalization

Some of the articles in the Criminal Code relating to fraud are as follows:

a. Article 362 concerning theft (“Taking something wholly or partly owned by another person, with the intention of unlawfully possessing it”).

b. Article 368 concerning extortion and threats (“With the aim of unlawfully benefiting oneself or another person, forcing someone with violence or threats of violence to give away his or her property or property of another person in whole or in part. Or in other words, incur debt or write off receivables”).

c. Article 372 concerning embezzlement (“Intentionally and unlawfully possessing something wholly or partly that belongs to another person, but which is in his control not because of a crime”).

d. Article 378 concerning fraudulent acts (“With the aim of unlawfully benefiting oneself or others, by using a false name or false dignity, by deceit, or a series of lies, to move other people to hand over something to him, or to give debts or write off receivables”).

e. Article 396 concerning the disadvantage of granting receivables in a state of bankruptcy.

f. Article 406 concerning destroying or damaging goods (“Intentionally or unlawfully destroys, damages, renders unusable, or eliminates the property of another person wholly or partly”).
Articles 209, 210, 387, 388, 415, 417, 418, 419, 420, 423, 425, and 435 which are specifically regulated in the law on the eradication of criminal acts of corruption (law number 31 of 1999).

Tuanakotta (2019) divides fraud into three groups:

a. Financial Statement Fraud. This type of fraud is usually carried out by management in the form of material misstatements in the company’s financial statements that can harm investors and creditors. This fraud can involve financial and non-financial factors.

b. Asset misappropriation. This type of fraud can be classified into cash fraud and fraud on inventory and other assets, including fraudulent disbursement.

c. Corruption. According to ACFE, this type of fraud can be divided into conflict of interest, bribery, illegal gratuity, and economic extortion.

According to Albrecht (2015:157), fraud can be classified into five:

a. Employee embezzlement or occupational fraud. Employees commit the either directly or indirectly within the company.

b. Management fraud. Top management provides biased information in financial statements.

c. Investment scams. Doing lies in investing.

d. Vendor fraud. Expensive rates given by the company for cargo delivery needs.

e. Customer fraud. The customer cheats the seller to get something more.

Fraud is an act that is carried out in secret. Fraud is a trick so that the real truth can be hidden. According to ACFE (2006), predication is an entire event (circumstance surrounding the event) that leads a reasonably qualified, trained, professional, and careful person to the conclusion that fraud has occurred, is occurring, or will occur.

According to Tuanakotta (2019), every organization needs to consider its size and organizational complexity to determine the most appropriate formal documentation. Fraud risk management program should include roles and responsibilities, commitment, fraud awareness, affirmation process (eg requests for something new that has the potential to be fraudulent), disclosure of conflicts of interest, fraud risk assessment, procedures and whistleblower protection, investigation process, corrective actions (when fraud occurs), quality assurance, and continuous monitoring.

Fraud risk identification can take the form of gathering external information such as from regulatory agencies, certain professional sources, groups that prepare guidelines, and professional organizations.

Figure 1. Fraud Triangle
Meanwhile, internal sources used to identify fraud risks include:

a. Interviews and brainstorming with employees representing various activities in the organization.

b. Reviewing complaints or input from whistleblowers.

c. Analytical procedure.

**Fraud Triangle Theory**

Fraud Triangle theory explains that fraud can occur because of pressure, opportunity, and rationalization. This theory was developed by Cressey (1953), one of the founders of the Association of Certified Fraud Examiners (ACFE).

This Fraud Triangle theory has three main elements of fraud.

**Pressure**

Pressure is the urge to commit fraudulent acts by employees and managers. This pressure is divided into 4 categories:

a. Financial pressure. This pressure is triggered by greed, living beyond one’s means, high bills or personal debt, poor credit, personal financial losses, and unexpected financial needs.

b. Bad habits in the past that continue to be done until now.

c. Pressure that arises from things related to work, such as being unsatisfied with gifts or rewards given by the company.

d. Pressure from various factors, such as pressure from internal family.

**Opportunity**

Opportunity means an opportunity to commit fraud. According to Albrecht (2009), there are at least seven main factors that increase the opportunity to commit fraud:

a. Weak controls that can prevent and/or detect behavior that leads to fraud.

b. Inability to assess the quality of performance.

c. Inability to provide a deterrent effect on fraud perpetrators.

d. Lack of access to information.

e. Ignorance, apathy and incompetence.

f. Weaknesses in auditing.

**Rationalization**

Rationalization is looking for justifications for fraud actions that have been done because they think that what they are doing is something that is already common or widely done by others, such as cheating in class, on the grounds that most students do the same thing, so cheating is not considered as fraudulent act. Albercht (2009) provides several examples of rationalization actions as follows:

a. The organization owes me.

b. I only borrowed the money, I will return it later.

c. No party is harmed.

d. I have more rights.

e. We will fix finances if we get into trouble.

f. This is for a good purpose.

g. All gain wealth, why can’t I.

h. The company allows this.

i. This is not a serious problem.

j. There is no strong internal control here so I want to show them that this can be done easily.

k. I want to improve my standard of living.

l. They don’t treat me with respect, so I want to get that.

Audits by certified and experienced experts as well as professionals in their fields need to be carried out to detect the risk of fraud in financial statements and provide protection so that there is no risk of fraud, especially loss of integrity, and as an anticipation of fraud.

**Audit**

According to Tuanakotta (2019:9), audit is a systematic examination of the books and records of a company or organization to obtain certainty, or to verify and report facts regarding financial activities and results. There are two forms of audit: external audit and internal audit.

Fraud case also occurred at PT. Garuda Indonesia (Persero) Tbk, in which the aviation company reported its 2019 financial statements that were not in accordance with the Statement of Financial Accounting Standards (PSAK). There was
an unreasonable presentation of the value of net income. The auditor who worked with the perpetrators finally received a sanction from the Minister of Finance Sri Mulyani by freezing the permit for 12 months. OJK sanctioned a fine of IDR 100 million to the Directors and Commissioners of Garuda Indonesia. And the IDX sanctioned a fine of IDR 250 million to the airline.

3. METHODS
This research uses descriptive analysis method with quantitative and qualitative data samples. Basically, every research is done to show the truth and problem solving for what is being researched. To achieve this goal, an appropriate and relevant method is needed. Data analysis is a simplification of data into a form that is easier to read and understand. The data collected from the research results will then be compared with the results of the analysis from year to year before drawing conclusions.

In this analysis there will be a discussion of the Fraud Triangle, Current Ratio, Quick Ratio, Return on Equity, Gross Profit Margin, Debt to Asset Ratio, and Debt to Equity Ratio. The object of research determined by the author, in accordance with the problems to be studied, is the detection of the risk of financial statement fraud using the fraud triangle and financial ratios at PT Garuda Indonesia (Persero) Tbk for the period 2017-2019. The financial statements analyzed include the consolidated statement of financial position and the statement of profit and loss and other comprehensive income. The analysis is carried out based on the opinions and input of respondents by distributing questionnaires with dimensions and based on indicators from the fraud triangle and calculated using a Likert scale. Financial ratios are calculated using the ratio of liquidity, profitability, and solvency. The samples are taken based on the data distribution to 30 respondents who have jobs as auditors, accounting staff and employees. A total of 20 statements are responded well by taking into account several indicators of fraud in the fraud triangle in detecting the risk of fraud in financial statements, such as preassure, opportunity, rationalization.

4. RESULTS AND DISCUSSION
Results of Fraud Risk Detection with Fraud Triangle
The results of calculation in percent based on the responses of 30 respondents with backgrounds as auditors, accounting, and employees are as follows: strongly agree (18%), agree (52%), neutral (16%), disagree (11%), and strongly disagree (3%). These results show that the three components in the fraud triangle, such as pressure, opportunity, and rationalization, are very helpful in detecting fraud risk (Appendix 1).

Results of Financial Ratio Analysis
Liquidity Analysis
Calculation of Current Ratio
The Current Ratio of PT Garuda Indonesia (Persero) Tbk was 0.513 in 2017, 0.368 in 2018, and 0.348 in 2019. Based on the calculation, the current ratio of PT Garuda Indonesia (Persero) Tbk decreased every year, which means that the company’s ability to pay its short-term debt decreases every year.

Quick Ratio Analysis
The Quick Ratio of PT Garuda Indonesia (Persero) Tbk was 0.315 in 2017, 0.237 in 2018, and 0.220 in 2019. Based on the calculation, the quick ratio of PT Garuda Indonesia (Persero) Tbk decreased every year. This means that the company’s ability to pay off its current liabilities / short-term debt decreases every year.

Solvency Analysis
Calculation of Debt To Asset Ratio
The Debt to Asset Ratio (DAR) of PT Garuda Indonesia (Persero) Tbk was 0.751 in 2017, 0.824 in 2018, and 0.838 in 2019. Based on the company’s balance sheet, its capital was financed by increasing debt. The calculation results show an average value of 0.804, which means that the company has used too much loan funds to
finance the company’s operations, so the company’s Debt to Asset Ratio (DAR) is considered bad.

**Calculation of Debt To Equity Ratio**
The Debt to Equity Ratio (DER) of PT Garuda Indonesia (Persero) Tbk was 3.014 in 2017, 4.815 in 2018, and 5.183 in 2019. Based on the company’s balance sheet, its capital was financed by increasing debt, so that the debt was able to cover the company’s capital. The calculation results show an average value of 4.337, which means that the company has used too much loan funds for company capital, so the company’s Debt to Equity Ratio (DER) is not good.

**Profitability Analysis**
**Calculation of Return on Equity**
The Return On Equity (ROE) of PT Garuda Indonesia (Persero) Tbk was -0.239 in 2018 and increased to 0.01 in 2019 which was very unnatural and caused a lot of suspicion on the capital that entered the company due to the very high increase in net profit from which previously experienced a loss of IDR 175,028.26 in 2018 to a profit of IDR 6,457,765 in 2019.

**Figure 2. Calculation of Current Ratio**

<table>
<thead>
<tr>
<th>Year</th>
<th>Current Ratio</th>
<th>Total Asset</th>
<th>Total Current Assets</th>
</tr>
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<tbody>
<tr>
<td>2017</td>
<td>0.513</td>
<td>Rp 986,741,627</td>
<td>Rp 1,921,846,147</td>
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<tr>
<td>2018</td>
<td>0.368</td>
<td>Rp 1,093,915,831</td>
<td>Rp 2,976,385,526</td>
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<td>2019</td>
<td>0.348</td>
<td>Rp 1,133,892,533</td>
<td>Rp 3,257,836,267</td>
</tr>
</tbody>
</table>

*Source: Data Processed, 2021*

**Figure 3. Quick Ratio Analysis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quick Ratio</th>
<th>Total Inventory Aset</th>
<th>Total Current Assets</th>
</tr>
</thead>
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<td>2017</td>
<td>0.315</td>
<td>Rp 606,306,852</td>
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<tr>
<td>2018</td>
<td>0.237</td>
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*Source: Data Processed, 2021*

**Figure 4. Calculation of Debt to Asset Ratio**

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt to Asset Ratio</th>
<th>Total Kewajiban Aset</th>
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</thead>
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<tr>
<td>2017</td>
<td>0.751</td>
<td>Rp 2,825,822,893</td>
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<td>2018</td>
<td>0.824</td>
<td>Rp 3,437,474,497</td>
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<td>2019</td>
<td>0.838</td>
<td>Rp 3,735,052,883</td>
<td>Rp 4,455,675,774</td>
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</table>

*Source: Data Processed, 2021*
Calculation of Gross Profit Margin

Gross Profit Margin (GPM) of PT Garuda Indonesia (Persero) Tbk was -0.018 in 2017, -0.032 in 2018, and 0.032 in 2019. This means that the company’s ability, with all the funds invested in assets used for company operations, generates losses. The results of the calculation of the 2019 GPM ratio are in line with the ROE ratio which previously experienced a loss but then turned into a profit, although the increase was not too significant.

DISCUSSION


Based on the table above, with indications of a Fraud Triangle theory involving 30 respondents, the results show that 20 respondents (66.7%) agree with pressure, 23 respondents (76.7%) agree with opportunity, and 20 respondents (66.7%) agree with rationalization. This means that the respondents, consisting of auditors,
accountants, and employees, agree that the three components in the Fraud Triangle are very helpful in detecting the risk of fraud that occurs in the financial statements of PT Garuda Indonesia (Persero) Tbk. The results of this study are not in line with the results of research conducted by Nining Sulastri (2019) that the fraud triangle has no effect in detecting the potential for fraudulent financial statements. However, these results are in line with the theory of Theodorus M. Tuanakotta (2014) in his book “Detecting Financial Statement Manipulation” that the Fraud Triangle has an effect on detecting the risk of financial statement fraud. The results of the questionnaire involving 30 respondents indicate that the average answer is agree, the fraud triangle variable helps companies detect the risk of fraud in financial statements.

The Current Ratio of PT Garuda Indonesia (Persero) Tbk from 2017 to 2018 decreased by 0.145, from 2018 to 2019 the ratio decreased again by 0.020. The current ratio of PT Garuda Indonesia (Persero) Tbk has decreased every year, which means the company’s ability to pay its short-term debt decreases every year. Likewise, the Quick Ratio value of PT Garuda Indonesia (Persero) Tbk from 2017 to 2018 decreased by 0.078 and from 2018 to 2019 it also decreased by 0.017, which means that every year the company’s ability to pay off current liabilities / short-term debt decreases. However, the profitability of 2017 and 2018 has a negative ratio (-), from the ratio of the value of assets and liabilities, but in 2019 the ratio became positive (+) which means that there is a significant increase in profit.

The Debt to Asset Ratio (DAR) of PT Garuda Indonesia (Persero) Tbk from 2017 to 2018 increased by 0.073 and from 2018 to 2019 it also increased by 0.014. Based on the company’s balance sheet, its capital is financed by increasing debt. This means that the company has used too much loan funds for company capital, so the company’s Debt to Equity Ratio (DER) is considered very bad. The company is getting better at paying debts because of the manipulation of debt funds in its capital.

The Return on Equity (ROE) of PT Garuda Indonesia (Persero) Tbk from 2017 to 2018 decreased from -0.228 to -0.240, or decreased by 0.12. From 2018 to 2019 there was an increase of 0.249 which made the value in 2019 suddenly become positive at 0.009. This is very unreasonable and raises a lot of suspicion of the incoming capital in the company, where there was a very high net profit increase from IDR 175,028,261 in 2018 to IDR 6,457,765 in 2019. Likewise, the Gross Profit Margin (GPM) ratio PT Garuda Indonesia (Persero) Tbk from 2017 to 2018 experienced an increase by 0.014 and from 2018 to 2019 had a significant increase from a negative ratio to a positive ratio, or from -0.032 to 0.032. This means that the company’s ability, with all the funds invested in the assets used for the company’s operations, suffered a loss, but in 2019 suddenly there was a significant increase in profit or had a positive ratio. This is an unnatural thing and raises suspicion, especially by external parties.

The results of this analysis are not in line with the results of research conducted by Umayah (2019) that the company showed recovery after the monetary crisis and negligence in its funding activities. Meanwhile, the results of this study, based on the calculation of the ratios made from year to year, showed that the company always experienced a decline. The increase was due to the presentation of an unreasonable value. In addition, the company’s ability to fulfill its obligations every year also continued to decline and fraud was detected by manipulating the company’s capital using its debt. This is in line with the theory of S. Munawir (2014)
that this report is able to detect capital movements in the company’s financial statements.

Respondents’ responses are relevant to the analysis conducted by the author. This strengthens the results of the calculation of financial ratios, where respondents agree with the risk of manipulation carried out by PT Garuda Indonesia (Persero) Tbk with indicators in the Fraud Triangle. In addition, the results of the calculation of financial ratios show numbers or results that indicate a risk of fraud in the presentation of financial statements.

Previous research conducted by Shabnam et al. (2016) entitled “Detecting Financial Statement Frauds in Malaysia” revealed that the Beneish and Dechow models were effective in predicting fraud in financial statements. The model used by researchers from Malaysia is also an inspiration for the author in conducting research development by using the fraud triangle method and financial ratios.

The results of research conducted by Aris et al. (2015) with the title “Fraudulent Financial Statement Detection Using Statistical Techniques: The Case Of Small Medium Automotive Enterprise” using three statistical analyses; Beneish model, Altman Z-Score and Financial Ratios, show that there are risk zones that need further investigation by management. It is recommended that the company establish an internal audit unit to provide assurance on the company’s operations, accuracy of financial reporting and compliance with regulations.

The results of the research entitled “The Role of Power in Financial Statement Fraud Schemes” conducted by Albrecht et al. (2015) show that fraud perpetrators often use power to recruit others to participate in fraudulent acts. The classical French model and Raven’s taxonomy of power are used as analytical tools in this study, which explains how one person influences others to cooperate to commit fraud in financial statements.

5. CONCLUSION

Based on the results of calculations and analysis, it can be concluded that, the Fraud Triangle theory proves that the auditor’s opinion is able to detect the risk of fraud in the financial statements of PT Garuda Indonesia (Persero) Tbk. Based on the results of the calculation of financial ratios, there were irregularities in the company’s financial statements in 2019 which proved that PT Garuda Indonesia (Persero) Tbk committed fraud in the financial statements in 2019, where the company manipulated the company’s capital with its debts because the previous 2 years it had always decreased. Respondents’ responses can strengthen the results of the previous financial ratio calculation analysis. It can be concluded that the company has committed fraudulent financial statements by manipulating the company’s capital on its debts in 2019. In the last 3 years the company’s financial performance has been very poor because it has always experienced losses and decreased effectiveness in paying its short-term debts.

The novelty of this research is the addition of a fraud triangle variable that is relevant in detecting the risk of fraud in financial statements and has been proven to help strengthen the results of calculating financial ratios in the financial statements of PT Garuda Indonesia (Persero) Tbk.

It is recommended that companies prioritize integrity and self-awareness to prevent fraud in financial statements, especially in terms of capital movements. Auditors must be able to work independently and cannot be invited to work together to commit fraud, both for personal and group interests. To find out and analyze the movement of capital values, company profits, increase or decrease in capital with various company conditions, it is suggested that further researchers add relevant and latest research variables for further research development.
REFERENCES


Appendix 1. Results of Calculation using Likert Scale Analysis

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Rata rata: 18% 52% 10% 11% 3%

Source: Data Processed, 2021

Appendix 2. Results of Analysis of the Fraud Triangle and Financial Ratio

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<tr>
<th>Variabel Fraud Triangle</th>
<th>Variabel Likelihood</th>
<th>Variabel Opportunities</th>
<th>Variabel Profitability</th>
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<td>Quick Ratio</td>
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<td>Return On Equity</td>
<td>Gross Profit Margin</td>
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Source: Data Processed, 2021