

## Conceptual Model of Financial Ratios in Detecting Fraud in Local Government Financial Statement



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**ABSTRACT:** The preparation of a local government financial statement must be free from fraud, so local governments need to ensure that there are no elements of material misstatement in the preparation of financial statement. This research aims to propose a conceptual model of the influence of financial ratios which includes the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to capital assets ratio which have the potential to detect fraud in local government financial statements. The method used in this research combines four concepts in one conceptual model framework. It is hoped that this research's conceptual model can become a method used in local government agencies to detect fraudulent financial statement through financial ratios.

**KEYWORDS:** fraudulent financial statement, financial ratios

### I. INTRODUCTION

Accountability is an important aspect that must be carried out by government sector organizations. Accountability becomes a forum for disclosing information (disclosure) to parties who have an interest in the report on government financial activities and performance. In Indonesia, financial accountability is a form of responsibility related to public financial management. The realization of financial accountability in the central and local governments can be seen from the procedures for each central and local agency in preparing government financial statements by Government Accounting Standards. The local government financial statements will be used as a means to determine the value of economic resources that can be used in carrying out government operational activities, to determine the financial position of government agencies, as well as to determine the obedience and compliance of local government agencies to applicable laws and regulations.

Preparation of a local government financial statements must be free from fraud, so local governments need to ensure that there are no elements of material misstatement when preparing financial statement. Fraud is an illegal act carried out to gain personal gain or break the law as well as causing harm and damage to the company's reputation (Sari et al., 2022). According to ACFE (2022) in Occupational Fraud 2022: a Report to the Nations stated that cases of financial statement fraud caused losses of \$593,000 with a case percentage of 9%. Fraudulent financial statement case is a type of fraud that has the most detrimental impact of fraud (Yesiariani & Rahayu, 2017).

The local government financial statements have been audited by The Audit Board of The Republic of Indonesia, it is further explained in the report of audit findings for 2022 showing that 542 Local Government Financial Statements for Fiscal Year 2021 revealed 6.986 audit findings containing 11.945 problems consisting of 5.383 internal control system problems and 6.562 problems of non-compliance with regulatory resulted in state losses of Rp 2,35 trillion (BPK, 2022). The findings of internal control system problems and non-compliance indicate that there are weaknesses and irregularities in local government accounting reporting (Atmaja & Probohudono, 2015).

The Audit Board of The Republic of Indonesia's findings indicated that there was fraud in local government financial statements. One of the cases of fraud that caused The Audit Board of The Republic of Indonesia to give an "Unreasonable" opinion was the case of fraud on the local government financial statement of Jember City where the findings showed that the total presentation of Employee Expenditures of Rp 1.302,44 billion and Goods and Services Expenditures of Rp 937,97 billion was not by the local government budget and is the result of mapping which is carried out to adjust to the presentation of expenses in the Operational Statement. As a result, Employee Expenditures were presented lower while Goods and Services Expenditures were

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presented higher, amounting to Rp 202,78 billion for each. For this reason, local governments need to supervise local government financial management to minimize fraud in local government financial statements. This can be done through actions to detect potential fraud in local government financial statements.

One approach that can be used to detect potential fraudulent financial statement is financial ratios analysis method (Arifin & Prasetyo, 2018). Financial ratios are an analytical tool commonly used to measure the financial performance of an entity. Financial ratios have great potential as an effective tool for detecting suspicious or unusual patterns in financial statement. Previous research has analyzed financial ratios that have the potential to detect fraudulent financial statement.

Previous research has analyzed liquidity ratios in detecting fraudulent financial statement, quick ratios, current ratios and working capital to total assets ratio influence on financial statement fraud (Wijaya et al., 2021; Christian & Eddy, 2020; Ardiansyah et al., 2019; Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018). The results of previous research show that fraud will occur when the company's liquidity conditions are not good. To show that the company's liquidity conditions are healthy, managers will do anything, including actions to manipulate financial statement. Therefore, a company's liquidity problems will influence on fraudulent financial reporting compared to companies that do not experience liquidity problems.

Previous research has analyzed the leverage ratio in detecting fraudulent financial statement, the debt-to-equity ratio and debt to asset ratio influence on financial statement fraud (Yaramah & Hidayat, 2022; Firdausya & Parasetya, 2021; Wijaya et al., 2021; Christian & Eddy, 2020; Ardiansyah et al., 2019; Milasari & Ratmono, 2019; Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018; and Widyanti & Nuryatno, 2018). The results of this research show that companies have a high-leverage tendency to commit acts of fraud. When a company cannot repay its debts, this creates pressure for management to seek capital loans from creditors so that management will take any action including manipulating financial statement so that the company's financial condition looks good and is worthy of obtaining loans from creditors.

Based on the previous research, financial ratios can detect fraudulent financial statement. Several ratios that influence fraudulent financial statement include the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to assets ratio. The purpose of this paper is because there is still a lot of fraud in local government financial statements in Indonesia. This is related to audit findings that internal control system problems and non-compliance indicate fraud. Besides that, liquidity and leverage factors can trigger fraudulent financial statement. Therefore, it is necessary to detect fraudulent financial statements by financial ratios analysis. Different from the previous research, the conceptual model of this research combines four concepts in one research conceptual model framework, including the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to capital assets ratio against financial statement fraud. This conceptual model uses a quantitative approach based on local government financial statements that have been audited by The Audit Board of The Republic of Indonesia.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Agency Theory

Agency theory is a theory that analyzes differences in interests between principals and agents which have an impact on conflicts of interest (Apriliana & Agustina, 2017). The cause of the conflict of interest is that the principal wants high returns while the agent wants large compensation for his performance (Jensen & Meckling, 1976). The information asymmetry that occurs will allow the agent to hide the company's financial information from the principal. This is because the principal will ask the agent to keep the company's financial condition healthy until the agent is pressured and motivated to carry out manipulation of the financial statement. The emergence of conflicts of interest and information asymmetry between principal and agent in agency theory can lead to fraudulent financial reporting. Agency theory can be used as an introduction to logic and supporting hypotheses in determining factors that can detect fraudulent financial statement.

Financial ratio analysis has been considered one of the effective methods for evaluating fraud (Firdausya & Parasetya, 2021). Through financial ratio analysis, users of financial statement can assess the financial position of an organization so that users can estimate the organization's performance from one period to the next. Based on this, financial ratios function as a guide for management, investors, creditors, and other parties in making economic decisions. However, financial ratios can be a trigger for management to commit fraud if the organization's financial ratios are bad. As a result, the survival of the organization may be threatened.

Based on the agency theory, a conflict of interest between the principal and agent can occur when the principal wants the company's liquidity conditions to be good, while the agent is required to maintain the company's liquidity. The agent's performance will be considered good if the agent can maintain the company's liquidity. Meanwhile, if the company's liquidity becomes lower, the company's condition will worsen. This can trigger a conflict of interest between the principal and agent. As a

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result, agents will be pressured and trigger manipulation of financial statements to maintain the company's condition so that it looks good in the eyes of stakeholders.

If a company has high leverage, there will be a risk of bankruptcy if the company is unable to pay off its debts. In agency theory, a conflict of interest between the principal and agent can occur when the principal wants additional capital to pay off the debt, while the agent is required to seek additional capital and creditors to fulfill the requirements of the debt given. If the agent is unable to raise additional capital, the company may go bankrupt. This can trigger a conflict of interest between the principal and agent. As a result, the agent will be pressured, allowing the agent to manipulate financial statement (when the company's financial condition is considered good, the company will receive additional capital from creditors).

In Indonesia, agency relationships can occur between the government and the people, where the government acts as agent, and the people as principal, which in this case is represented by the Local People's Representative Council (Farizi et al., 2020).

### **The Influence of the Quick Ratio on Financial Statement Fraud**

The quick ratio is one of the best liquidity analyses when compared to the current ratio. The quick ratio indicates whether the local government can pay its debt quickly.

Based on the agency theory, the principal will want the organization's liquidity conditions to be good through speed in paying off its debts. The quick ratio can help the principal to understand how the agent manages the organization's liquidity. The principal wants the organization's liquidity conditions to be good, while the agent is required to maintain sufficient liquidity through the speed of paying debts. If the quick ratio value is low, it will indicate that the agent is unable to maintain adequate organizational liquidity. This can trigger a conflict of interest between the principal and agent. As a result, agents will experience pressure and may take any action to maintain organizational liquidity, including manipulating financial statement. The lower quick ratio value indicates lower liquidity, which can indicate high levels of fraudulent financial statement.

Previous research shows that the quick ratio has a negative effect on financial statement fraud (Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018). This explains that the higher the quick ratio value, the lower possibility of fraudulent financial statement (Arifin & Prasetyo, 2018). In the context of agency theory, a high quick ratio value can act as a factor in reducing the risk of financial statement fraud because it reflects the agent's ability to fulfill obligations honestly and transparently, thereby reducing conflicts of interest between the agent and the principal.

### **The Influence of the Current Ratio on Financial Statement Fraud**

The current ratio is a standard measure that can be used to assess the financial health of government organizations. The current ratio will show whether the local government has sufficient assets to pay off its debts.

Based on the agency theory, the principal will ask the agent to maintain sufficient assets to pay off the debt. If the current ratio value is low, it will cause the organization's assets to decrease. Meanwhile, the principal will ask the agent to obtain additional funds from creditors to pay off the debt. However, if the current ratio value is low it can result in the organization losing the trust of creditors so the organization will have difficulty getting additional funds. This creates a conflict of interest between the principal and the agent.

To show creditors that the organization's liquidity condition is good, it can create pressure on the agent so that the agent will take any action, including manipulation of the financial statement. Government organizations with a low current ratio have a high probability of being involved in fraudulent financial reporting.

Previous research shows that the current ratio has a negative effect on financial statement fraud (Wijaya et al., 2021; Ardiansyah et al., 2019; Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018). This explains that the higher of current ratio value, the lower possibility of fraud in the financial statement (Wijaya et al., 2021). In the context of agency theory, if the current ratio value is high, it can act as a factor in reducing the risk of financial statement fraud because it reflects the agent's ability to maintain the organization's liquidity so that it can obtain additional funds from creditors to pay off debts. This has the potential to reduce conflicts of interest between agent and principal.

### **The Influence of the Working Capital to Total Assets Ratio on Financial Statement Fraud**

Working capital to total assets ratio is one of the financial ratios used by principals to understand how agents manage working capital about the total assets of the organization. This ratio can provide an overview of how agents manage organizational resources. The higher the value of this ratio, the higher the margin of safety that an organization has to cover its short-term debt.

Based on the agency theory, the principal will identify whether the agent will make decisions that could harm the organization for personal interests. It has happened because the principal wants the agent to be able to manage organizational resources well. However, if the value of the working capital to total assets ratio decreases significantly, it would indicate that the

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agent neglected the management of organizational resources in maintaining sufficient liquidity to meet short-term debt. This can trigger a conflict of interest between the principal and agent.

To show that the organization's liquidity is good, an agent can take any action, including manipulation of the financial statement, so that the principal will judge that the organization is in good health. This shows if the working capital to total assets ratio value is lower, it will increase fraudulent financial statement (Christian & Eddy, 2020).

Previous research shows that the working capital to total assets ratio has a negative effect on financial statement fraud (Christian & Eddy, 2020; Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018). This explains that the higher the working capital to total assets ratio value, the lower possibility of fraudulent financial statement. In the context of agency theory, if the working capital to total assets ratio value is high, it can act as a factor in reducing the risk of fraudulent financial statement because it reflects the agent's ability to fulfill current obligations using adequate working capital, thereby reducing conflicts of interest between the principal and the agent.

### **The Influence of the Debt-to-Equity Ratio on Financial Statement Fraud**

The debt ratio can indicate how much the local government is burdened by its debt. When equity debt is high, it will indicate that the local government has excess debt and must immediately find a solution to pay it off.

Based on the agency theory, the debt-to-equity ratio can be used by principals to understand how agents manage the organization's capital structure by combining debt and equity. The principal can monitor whether the agent is using debt and equity wisely or has reached potentially detrimental levels.

If the value of the debt-to-equity ratio is greater, it indicates that the risk of providing credit is also higher. High credit risk will raise concerns from creditors that local governments will not have the ability to repay loans. If the local government does not receive a capital loan, it is deemed unable to pay off its debt. This can trigger a conflict of interest between the principal and agent. The principal will demand that the agent obtain a capital loan while the agent will feel pressured. As a result, agents are motivated to carry out acts of manipulation of financial statement to show that the organization's financial condition is as expected by creditors. The higher the debt-to-equity ratio, the greater the pressure on organizations to commit fraudulent acts (Siswanto, 2021).

Previous research shows that the debt-to-equity ratio has a positive effect on financial statement fraud (Yaramah & Hidayat, 2022; Firdausya & Parasetya, 2021; Arifin & Prasetyo, 2018). This explains that if the debt-to-equity ratio is high, it can act as a factor that increases the risk of financial statement fraud due to the high level of dependence on debt as a source of funds. On the other hand, it can put pressure on the agent to show financials that are better than they are and create a conflict of interest between the agent and the principal.

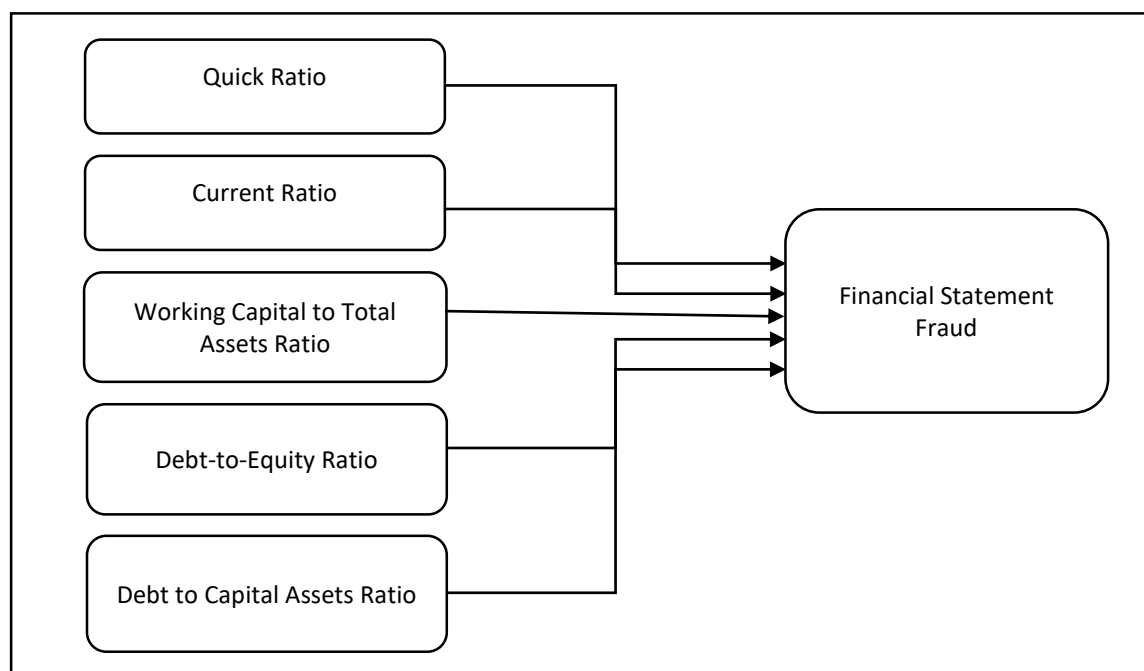
### **The Influence of the Debt to Capital Asset Ratio on Financial Statement Fraud**

The debt to capital assets ratio is used to find out what portion of capital assets can be used to guarantee the debt. Based on the agency theory, there is a potential conflict of interest in that the principal can use this ratio to monitor whether the agent is using debt efficiently or whether the organization's debt has reached a potentially detrimental level. Through the debt to capital assets ratio, the principal will identify whether the agent uses debt for interests outside the organization. If the value of the debt to capital assets ratio is too high and cannot be explained rationally, it indicates that the agent may be taking excessive risks in using debt. This will raise concerns for local governments in paying off all their debts.

The principal will ask the agent to guarantee the debt with capital assets owned by the organization. If the agent is not able to manage it well, the debt will be high risk and potentially detrimental. This condition causes agents to be pressured. To show that the local government's financial condition is good, the agent will take any action, including manipulation of the financial statement. The higher the debt to capital asset ratio, the higher of potential for financial statement fraud (Ardhiansyah et al., 2019).

Previous research shows that the debt to asset ratio has a positive effect on financial statement fraud (Yaramah & Hidayat, 2022; Firdausya & Parasetya, 2021; Wijaya et al., 2021; Christian & Eddy, 2020; Ardhiansyah et al., 2019; Milasari & Ratmono, 2019; Ramadhan & Laksito, 2019; Arifin & Prasetyo, 2018; Widyanti & Nuryatno, 2018). This shows that the higher of debt to asset ratio, the greater possibility of fraudulent financial statement. A high debt to asset ratio can create a conflict of interest between the agent and the principal. The agent may be pressured to maintain good financial conditions and may be encouraged to commit fraudulent acts. Meanwhile, the principal wants accurate financial information. This can give rise to a conflict of interest between the principal and agent.

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**Figure 1: Conceptual Model of Financial Ratios on Financial Statement Fraud**

Based on the results of the previous study, a proposed research conceptual model can be formulated using the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to capital assets ratio influence financial statement fraud. Figure 1. Presents a conceptual model of financial ratios on financial statement fraud.

Figure 1 shows that the proposed model is expected to be able to explore the influence of the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to capital assets ratio on financial statement fraud.

### III. RESEARCH METHODS

The method used in this research is the conceptual framework method. According to Mamahit & Urumsah (2018), the conceptual research method is a methodology that observes and analyzes all information regarding the research topic. The conceptual research framework includes the researcher's combination of previous research and its relationship to the phenomena that occur. There are four steps in carrying out conceptual research methods. First, conceptual research is defined as a methodology where research is carried out by observing and analyzing existing information on a particular topic. Conceptual research does not involve practical experiments related to abstract concepts or ideas. The conceptual research framework is a combination of previous research by explaining the phenomena that occur. Second, collect relevant literature, namely by narrowing the topic and collecting relevant information. Gathering relevant information is an important step in conceptual research because it is largely based on information obtained from previous research. Third, identify certain variables by identifying variables related to the research to be conducted. These variables can provide new research scope and thus help to identify research. Fourth, produce a framework where this step begins by building the necessary framework using a mixture of variables from scientific articles and other related materials. This research was conducted to produce more relevant information.

### IV. CONCLUSIONS

Fraud is an illegal act carried out to gain personal gain or break the law as well as causing harm and damage to the company's reputation. The fraudulent financial statement case is a type of fraud that has the most detrimental impact of fraud. The findings of internal control system problems and non-compliance indicate that there are weaknesses and irregularities in local government accounting statements. This paper proposes a conceptual model for detecting fraudulent financial statement by using financial ratios analysis. There is still a lot of fraud in local government financial statements in Indonesia. This is related to audit findings that cause fraud. The previous research state that several ratios that influence fraudulent financial statement including the quick ratio, current ratio, working capital to total assets ratio, debt-to-equity ratio, and debt to assets ratio. The theory that will be used in this conceptual model is agency theory. For this research, the research model can be carried out through quantitative research with secondary data sourced from local government financial statements that have been audited by The Audit Board of The Republic of Indonesia.

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