

Analysis of Fraud Hexagon Theory in Detecting Fraudulent Financial Statements in Local Governments in West Java Province

Irmawati Rosaeni

Universitas Padjadjaran, Indonesia

Email: irmawatirosaeni@gmail.com

ABSTRACT

This study analyzes the application of Fraud Hexagon Theory in detecting fraudulent financial statements in local governments in West Java Province. It examines six key elements—pressure, opportunity, rationalization, capability, arrogance, and collusion—both partially and simultaneously to assess their influence on fraud. The study employs a quantitative descriptive approach using secondary panel data from 140 Laporan Keuangan Pemerintah Daerah (LKPD) audited by Badan Pemeriksa Keuangan (BPK) for 2019–2023. Data were analyzed via panel regression with the Common Effect Model (CEM) and Ordinary Least Squares (OLS). Findings reveal that pressure and rationalization negatively and significantly influence fraudulent statements, while opportunity and capability show no significant impact. Conversely, arrogance and collusion exert positive, significant effects and emerge as the dominant fraud drivers. The F-test confirms the collective significance of all Fraud Hexagon variables. These results offer practical implications for regional financial governance: strengthen whistleblowing to combat collusion, monitor officials' public behavior to curb arrogance, elevate Sistem Pengendalian Intern Pemerintah (SPIP) maturity to limit rationalization, and boost fiscal independence to reduce pressure-induced manipulation. The study recommends comprehensive prevention via enhanced internal controls, mandatory ethics training, regular integrity assessments, transparent reporting, and civil society oversight to bolster accountability and transparency.

KEYWORDS



Fraud Hexagon Theory; Fraudulent Financial Statement; Local Government; Panel Regression; Internal Control

This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

INTRODUCTION

Fraud represents a widespread global problem requiring serious attention due to its potential to cause substantial financial losses (Ketaren et al., 2023). The increasing incidence of fraud has become a major economic threat facing the business world globally, raising significant concerns across various sectors (Dani et al., 2022). The Association of Certified Fraud Examiners (ACFE, 2024) measures the extent of damage caused by fraud, which presents challenges due to the inherent concealment and deceptive nature of most fraud schemes (Anderson & Smith, 2022). As fraud schemes become more sophisticated, companies face heightened risks in both detecting and preventing fraudulent activities (Johnson & Lee, 2021). Effective fraud prevention strategies are critical for organizations to safeguard assets and maintain trust within their operations (Singh & Gupta, 2020).

ACFE categorizes fraud schemes into three main categories: Asset Misappropriation, Corruption, and Financial Statement Fraud. Asset Misappropriation involves the theft or misuse of company resources by employees, representing the most common case category at 89% of studied cases with median losses of USD 120,000 per case. Corruption encompasses violations such as bribery, extortion, and conflicts of interest, occupying a middle position in both frequency (48%) and loss amounts (USD 200,000). Financial Statement Fraud, wherein perpetrators knowingly and deliberately cause company financial statements to be

misrepresented or incomplete, represents the rarest category at only 5% but causes the most substantial damage, reaching USD 766,000 per case.

In Indonesia, ACFE's 2016 and 2019 reports reveal alarming trends in fraud occurrences across different schemes (ACFE, 2019). The results demonstrate that corruption decreased by 6%, while asset misappropriation increased by 22%, and most notably, fraudulent financial statements increased sharply by 120% between 2016 and 2019 (ACFE, 2016). Financial statement fraud can negatively impact an organization's reputation and market value (Hogan et al., 2008). In public organizations, this erosion of trust significantly undermines public confidence in financial reporting reliability (Ramadhan, 2020). Studies show that transparency in financial statements and the implementation of rigorous internal controls are essential to preventing such fraud (Sukma & Rahardjo, 2021). Moreover, the increased frequency of financial statement fraud underscores the importance of corporate governance reforms (Bastian & Nurani, 2022).

Financial statements play significant and essential roles for their users, serving as instruments to evaluate company performance over specific periods, monitor organizational development, and assess goal achievement (Kurniawan & Budianto, 2020). Public sector financial statements, particularly government statements, provide multiple benefits including transparency mechanisms, public accountability tools, information sources, and performance evaluation instruments (Suryadi et al., 2021). Accountability represents the final stage of the state's financial management cycle, implementing mandates and providing evidence of development achievements (Wijaya & Aryanto, 2020). The public and stakeholders must expect clear government financial reports demonstrating fund utilization (Dharma & Lestari, 2024). Effective transparency in financial reporting enhances public trust in governmental institutions (Fauzi et al., 2022). Furthermore, ensuring clarity in financial statements plays a crucial role in fostering government accountability (Gunawan & Lestari, 2021). Financial transparency in the public sector also supports democratic principles by allowing the public to scrutinize how state resources are utilized (Indrawati & Suryawan, 2021).

Public perception of financial statement quality directly influences confidence in regional financial management. High-quality financial statements increase public trust, while low-quality assessments lead to decreased confidence levels. Therefore, regional financial managers must improve financial statement quality to obtain favorable public assessments and maintain confidence in regional financial management (Masdar et al., 2021; Pattawe et al., 2022).

In 1953, Cressey proposed the fraud triangle theory, which describes the method of analysis for detecting the possibility of fraud in financial reporting. This theory identifies three main factors that encourage someone to commit fraud, namely opportunity, rationalization, and pressure. In its development, a fourth element was added—Wolfe and Hermanson (2004) introduced the capability factor, making this concept known as the fraud diamond. Furthermore, this theory was refined with the addition of the arrogance factor, which gave birth to the pentagon fraud theory developed by Crowe Howarth (2011).

The latest development of fraud theory is the hexagon fraud theory introduced by Vousinas (2019). According to him, there is a need to update the Pentagon fraud model to effectively address the increasing number of fraud incidents. Vousinas (2019) includes

collusion as one of the main factors; collusion in white-collar offenses contributes to fraud cases and has the potential to have significant financial consequences (Ketaren et al., 2023).

Several reports document fraud occurrences in the government sector, creating an ironic situation wherein government institutions responsible for regulatory enforcement contain elements committing fraud. Stakeholders, including the public and legislature, consistently demand accountability and transparency in state financial management by central and regional governments (Kusuma et al., 2017). While fraud occurring across various sectors can be prevented or minimized (Permata Sari & Khoiriah, 2021), fraud in regional financial statements can be detected by examining various factors encompassed by Fraud Hexagon Theory.

Recent cases illustrate the severity of fraudulent financial statements in West Java. The inactive Regent of Bogor, Ade Yasin, was named a suspect in alleged bribery of BPK audit team members related to 2021 fiscal year LKPD management. Based on West Java BPK audit results, the 2021 financial statements were considered poor quality with potential "disclaimer" opinion. To avoid this outcome, Ade Yasin allegedly bribed BPK auditors totaling IDR 1.024 billion to obtain an Unqualified Opinion (WTP). Several regional apparatus employees in Bogor Regency and BPK West Java Representative employees were also implicated. The primary cause involved findings from PUPR Office projects, including the Roda-Pakan Sari Kennel Road improvement project valued at Rp 94.6 billion, suspected of contract provision violations (www.kompas.com).

Another case from Jember Regency's 2020 fiscal year LKPD illustrates fraud potential in public sector financial statements. The East Java BPK Audit Results Report (LHP) issued an Adverse Opinion on the LKPD, with material findings including: unratified APBD by DPRD, goods and services expenditure presentations not complying with APBD details, payment realizations not reflecting expenditure substance according to accounting standards, and unaccounted cash worth Rp 107.09 billion. Additional findings included short-term debts of IDR 31.57 billion lacking adequate supporting documents, BOS and PPG fund expenditure realizations of IDR 66.59 billion without sufficient recapitulation or evidence, and attribution errors in fixed asset rehabilitation and maintenance affecting expense calculation accuracy and accumulated depreciation. These findings reflect weak internal control systems and non-compliance with Government Accounting Standards (www.jatim.bpk.go.id).

These cases demonstrate that fraudulent practices in Indonesian local governments are not isolated incidents but systematic issues requiring comprehensive theoretical frameworks for detection and prevention. The Fraud Hexagon Theory, with its six-element approach, offers a more complete lens for understanding fraud mechanisms compared to earlier models.

This study was conducted to analyze how Fraud Hexagon Theory can be used in detecting fraudulent financial statements in local governments in West Java Province, focusing on six elements, namely pressure, opportunity, rationalization, capability, arrogance, and collusion, both partially and simultaneously, and to find out the most dominant elements influencing the occurrence of financial statement fraud. The objectives of this study include testing the influence of each of these theoretical elements on fraudulent financial statements and evaluating the contribution of the model as a whole. In addition, this research is expected to have theoretical benefits in the form of developing knowledge related to fraud detection in the government sector, as well as practical benefits for the community as a source of information to improve the function of external supervision and for local governments as a consideration

in fraud prevention and the formulation of strategic policies related to regional financial governance.

METHOD

The object of this research was the Regional Government in West Java Province, understood as the main element that was the focus of the study and analysis to obtain answers to the problems being researched. The research population covered 27 districts/cities in West Java, with data sources in the form of *Laporan Keuangan Pemerintah Daerah (LKPD)* audited by *Badan Pemeriksa Keuangan (BPK)* for 2019–2023, as well as supporting data such as *Sistem Pengendalian Intern Pemerintah (SPIP)* maturity and *Sistem Akuntabilitas Kinerja Instansi Pemerintah (SAKIP)* scores. The five-year period was selected due to a significant decline in *WTP* opinions and corruption perception index during that time, yielding a total of 140 reports that met specific criteria.

This research used secondary data obtained through documentation and literature studies, including financial statements, audit results, and official documents from related government institutions. The approach was quantitative, based on the philosophy of positivism, where numerical data were statistically tested to address the research hypotheses. The data consisted of quantitative measures reflecting variables that affected fraudulent financial statements in local governments.

The research method was quantitative descriptive, employing panel data regression analysis techniques. Three possible approaches exist in panel regression models: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). However, this study used the Common Effect Model with the Ordinary Least Squares (OLS) method as the estimation approach. Data processing was conducted using Microsoft Excel and EViews 8 to derive empirical results on the relationships between variables in detecting potential fraud in local government financial statements in West Java.

RESULT AND DISCUSSION

Statistical Hypothesis Test

In this section, a test was carried out on the hypotheses proposed in this study to see the influence of the variables used in the regression model on the occurrence of fraudulent financial statements in the West Java Provincial Government. The tests carried out in this study include the Partial Significance Test (t-test) and the Simultaneous Significance Test (F test). These two tests aim to measure the influence of each independent variable individually (t-test) as well as the overall influence of the independent variables together (the F test) on the dependent variables.

1. Partial Significance Test (t-test)

To determine the influence of each independent variable on the dependent variable, it can be done by testing the hypothesis with a t-test. This test is carried out by comparing the t_{cal} value with the t_{table} value. If the $t_{\text{count}} \geq t_{\text{table}}$, then H_0 is rejected and H_a is accepted or significant, while if the $t_{\text{count}} \leq t_{\text{table}}$, then H_0 is accepted and H_a is rejected or insignificant.

Based on the results of the hypothesis test, it shows that the value of t-table with a real level of 5%: $df = n - k - 1$ $df = 140 - 7 - 1$, $df = 132$ Then the t-table with a real level of 5% = 1.65648.

Table 1. Panel Data Regression Test Results

Dependent Variable: SER07				
Method: Panel Least Squares				
Date: 06/29/25 Time: 09:08				
Sample: 2019 2023				
Periods included: 5				
Cross-sections included: 28				
Total panel (balanced) observations: 140				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.044205	0.018069	2.446433	0.0157
X1	0.018999	0.007353	2.583772	0.0109
X2	-0.001616	0.003450	-0.468508	0.6402
X3	-0.008614	0.003914	-2.200956	0.0295
X4	-0.000810	0.003816	-0.212167	0.8323
X5	0.009127	0.003651	2.499962	0.0136
X6	0.004402	0.002368	1.858937	0.0452
R-squared	0.715629	Mean dependent var		0.022499
Adjusted R-squared	0.707320	S.D. dependent var		0.027320
S.E. of regression	0.026265	Akaike info criterion		-4.392420
Sum squared resid	0.091753	Schwarz criterion		-4.245338
Log likelihood	314.4694	Hannan-Quinn criter.		-4.332650
F-statistic	2.898217	Durbin-Watson stat		1.952730
Prob(F-statistic)	0.010937			

Source: Eviews Output Results 13 (data processed by researchers)

Based on the results of the influence test in table 4.8 above, the panel data regression hypothesis test can be explained as follows:

- 1) Pressure (Independence Ratio) has a t-count of 2.583772, which is $2.583772 > 1.65648$ so that the t-calculation $>$ t-table with a probability of $0.0109 < 0.05$ which means that Pressure (Independence Ratio) has an effect in detecting fraudulent financial statements.
- 2) Opportunity (The number of SPI weakness findings) has a t-calculation of -0.468508 which is $-0.468508 < 1.65648$ so that the t-calculation $<$ t-table with a probability of $0.6402 > 0.05$ which means that Opportunity (the number of SPI weakness findings) has no effect in detecting fraudulent financial statements.
- 3) Rationalization (SPIP Maturity Level) has a t-calculation of -2.200956 which is $-2.200956 > 1.65648$ so that the t-calculation $>$ t-table with a probability of $0.0295 < 0.05$ which means that Rationalization (SPIP Maturity Level) has an effect in detecting fraudulent financial statements.
- 4) Capability (SAKIP Assessment Results) has a t-calculation of -0.212167, which is $-0.212167 < 1.65648$ so that t-calculation $<$ t-table with a probability of $0.8323 > 0.05$ which means that Capability (SAKIP Assessment Results) has no effect in detecting fraudulent financial statements.
- 5) Arrogance (Social Media Ownership) has a t-count of 2.499962, which is $2.499962 > 1.65648$ so that the t-count $>$ t-table with a probability of $0.0136 < 0.05$ which means that Arrogance (Social Media Ownership) has an effect in detecting fraudulent financial statements.

- 6) Collusion (WBS Availability) has a t-count of 1.858937 which is $1.858937 > 1.65648$ so that the t-calculation $>$ t-table with a probability of $0.0136 < 0.05$ which means that Collusion (WBS Availability) has an effect in detecting fraudulent financial statements.

2. Simultaneous Significance Test (F Test)

The F test is carried out with the aim of determining the influence of independent variables on dependent variables simultaneously. Based on the results in table 4.13, the data regression results of the common effect model panel obtained a p-value of F-statistical ≤ 0.05 or equal to $0.010937 \leq 0.05$, then the independent variables together have an influence on the dependent variables. $df1 = (k-1) = (7-1) = 6$ and $df2 = (n-k) = (140-7) = 133$ with a degree of freedom $\alpha = 0.05$ ($\alpha=5\%$). This means that F-calculates $>$ F-tables. Where the value is $2.89 > 1.82$. So the independent variables together have an influence on the dependent variables.

Based on the results of the data test that has been carried out previously, this section will explain the results of the test. The purpose is to conclude a decision and explanation for the acceptance or rejection of the hypothesis.

1. Effect of Pressure (Independence Ratio) on fraudulent financial statement

Based on the results of the panel data regression test, the Pressure variable, which was proxied through the Independence Ratio, showed a significant influence on the detection of fraudulent financial statements in local governments in West Java Province. The t-calculated value of 2.583772 is greater than the t-table of 1.65648, and the probability value of 0.0109 is smaller than 0.05, indicating that pressure has a positive influence on detecting financial statement fraud.

Pressures in regional financial management often arise due to financial instability, which can affect decision-making related to financial statements. Financial stability reflects fiscal balance, and financial instability, such as fiscal hardship, increases the pressure to present sound-like reports. One form of this instability is the low ratio of regional independence, which indicates a high dependence on transfer funds from the central government. This dependency limits fiscal flexibility and creates pressure on regional financial management.

Research by (Sari, 2021) shows that pressure measured through financial stability has an effect on the fraud of local government financial statements. Similar findings were also put forward by (Maria, 2017), who stated that the ratio of regional independence has a significant effect in detecting corrupt or fraudulent practices in local government. Research by (Arasiani & Arifin, 2024) also emphasizes the importance of financial ratio analysis, including independence ratio, to identify possible fraud in financial statements.

In addition, fiscal pressures faced by local governments often encourage decision-makers to manipulate financial statements, either to maintain an image, meet performance targets, or maintain local political stability (Penrose, 2017). Thus, low fiscal independence is an important factor that encourages the occurrence of fraudulent financial statements. Therefore, local governments need to focus on increasing the fiscal independence ratio, such as through optimizing Regional Original Revenue (PAD) and spending efficiency, to reduce structural pressures that can lead to fraud.

However, the implementation of fiscal policy often faces challenges, one of which is corruption in regional budget management. Funds that should be used for development can be

misused for personal or group interests, which hinders the achievement of fiscal policy goals (Supriyanto, 2024).

2. The Influence of Opportunity (SPI's Weakness) on Fraudulent Financial Statements in the West Java Provincial Government

The results of the regression analysis showed that the Opportunity variable proxied through the many findings of SPI weakness did not have a significant effect on the detection of fraudulent financial statements in the local government of West Java Province, which was shown by the t-value calculated -0.468508 (< 1.65648) and p-value 0.6402 (> 0.05). These findings suggest that while there are weaknesses in internal control systems, they do not necessarily increase the chances of fraud detection or occurrence.

Theoretically, the Opportunity component of the Fraud Hexagon Theory states that weaknesses in internal controls can create loopholes for employees to commit fraud. However, in the context of local government, the number of findings of SPI's weaknesses is not necessarily directly proportional to the incidence of fraud.

In Indonesia, the findings of SPI weaknesses are often responded to with corrective measures and strengthening supervision, so that the potential for opportunities for fraud can actually be reduced. The findings of SPI weaknesses identified in the Audit Report (LHP) by the Audit Board (BPK) are generally accompanied by recommendations for improvement addressed directly to regional heads. These recommendations include details of the weaknesses of the internal control system and corrective measures that should be taken by the audited entity. With a structured follow-up system, local governments are encouraged to immediately fix the weaknesses found so that they do not recur.

This explains that although the many weaknesses of SPI can reflect the opportunity for fraud, these opportunities are often minimized through BPK intervention. Over time, if the recommendations are implemented consistently, the likelihood of finding weaknesses in SPI from year to year will also tend to decrease. Therefore, while the Opportunity variable is an important part of the Fraud Hexagon Theory, its existence does not necessarily have a direct influence on financial statement fraud if external oversight systems, such as CPC, function effectively and responsively.

This is in line with the results of the study (Dewi & Suardana, 2022), which found that although financial pressures and internal control systems were analyzed in a moderation model, the SPI weakness variable did not significantly affect the tendency to cheat.

The internal control system has no effect on the tendency to cheat. Research (Herawaty & Hernando, 2021) also states that internal controls have no effect on the prevention of accounting fraud. This happens because the existing internal control has not been carried out optimally by the government.

3. The Effect of Rationalization (SPIP Maturity Level) on Fraudulent Financial Statements in the West Java Provincial Government

The results of the regression test showed that Rationalization, which was proxied through the maturity level of SPIP (Government Internal Control System), had a significant effect on the detection of fraudulent financial statements in the local government of West Java Province, as evidenced by t calculation of $2.200956 > t$ table 1.65648 with p value of $0.0295 < 0.05$.

Rationalization in Fraud Hexagon Theory reflects the individual's ability to justify or simplify manipulative actions as acceptable (Dorminey et al., 2012). In the context of

government, local officials may feel that the manipulation of financial statements is reasonable or necessary to achieve budget targets or maintain political image stability (Ketaren, 2023). Therefore, an indicator that measures how mature SPIP is in an entity, namely the SPIP Maturity Level, is an important measure to understand the extent to which rationalization can occur.

According to (Paneo, 2017), the SPIP Maturity Level measures the maturity level of government internal control based on Government Regulation 60 of 2008, from level 1 – level 5. The higher the maturity of the SPIP, the stronger the control structure and the more difficult it is for the individual to rationalize deviant behavior. Research (Ketaren, 2023) reinforces this, stating that rationalization has a significant effect on the occurrence of fraud, the lower the SPIP level in an area, the greater the tendency of individuals to justify manipulative actions due to weak supervision, low compliance culture, and lack of control mechanisms.

This is in line with research (Rustiarini & Andayani, 2019) which states that psychological aspects (rationalization) and individual capabilities lead individuals to commit cheating. Other research, such as (Siska et al, 2020) states that Rationalization has a positive influence on the intention of accounting fraud.

Thus, it can be concluded that the maturity level of SPIP plays a central role in mitigating potential rationalization. This is in line with theory and empirical evidence that shows that organizations with mature SPIP tend to have a higher ability to prevent fraud justification while increasing the effectiveness of fraud detection.

4. The Influence of Capability (SAKIP Value) on Fraudulent Financial Statements in the West Java Provincial Government

The results of the hypothesis test showed that the Capability variable, which was measured through the results of the SAKIP (Government Agency Performance Accountability System) assessment, did not have a significant effect on the detection of fraudulent financial statements in the local government of West Java Province, marked with a t value of -0.212167 ($< t$ table 1.65648) and a p value of 0.8323 (> 0.05).

Capability theory in Fraud Hexagon shows that individuals who have high skills, positions of influence, and an understanding of the system, have the ability to design and execute manipulative strategies (Wolfe & Hermanson, 2004). An indicator that is commonly used to measure capability in the public bureaucracy is the SAKIP assessment, which reflects the extent to which the apparatus understands and implements performance accountability and technical reporting mechanisms (Sofyan, 2025).

However, even if the apparatus has high technical capabilities, this does not automatically translate into increased detection or fraud practices, especially if these capabilities are used to improve the accountability process, not manipulate it. This is in line with the findings (Yudanto et al, 2020), which state that auditing capabilities, although important to strengthen SPIP and SAKIP, do not always have a direct effect on mitigating fraud, but rather play a role in strengthening internal controls in general.

In other words, high administrative and technical capabilities reflected in the SAKIP score are not a guarantee that the apparatus uses these capabilities to detect or prevent fraud, it could be that these capabilities focus on program performance and routine reporting. The implications of these findings suggest that while increasing SAKIP is important to strengthen

a culture of accountability and transparency, fraud prevention strategies in the public sector require additional elements.

5. The Effect of Arrogance (Social Media Ownership) on Fraudulent Financial Statements in the West Java Provincial Government

The test results showed that the Arrogance variable, which was proxied through the ownership and active use of social media accounts by regional heads, had a significant effect on the detection of fraudulent financial statements in local governments, as evidenced by t calculation of $2.499962 > t$ table 1.65648 and p value $0.0136 < 0.05$.

Arrogance describes an arrogant attitude that makes individuals feel above norms and rules, as well as rejecting the application of internal supervision over themselves (Permata & Khoiriah, 2021). This attitude is triggered by excessive self-confidence and narcissistic character, which in some cases encourages manipulative behavior (Hidayah & Saptarini, 2019). In the public sector, the ownership of many social media accounts and the frequency of uploads by regional heads reflect the need to highlight their dominance and form an ideal narrative of achievement, so it is considered a form of arrogance (Nuraini, 2023).

Research (Laura and Campbell, 2016) shows that social media is often used as a narcissistic space, where individuals with high narcissistic tendencies tend to actively promote themselves through uploaded content that highlights achievements and self-image. This is relevant in the context of regional heads where the more social media accounts one has and the more often the content is posted, the greater the potential for arrogance and public exposure.

This pre-existing attitude can reduce the integrity and accountability of financial management, as an excessive focus on public image and legitimacy can obscure transparency. In contrast, recent research using Chinese local government social media data between 2011–2019 found that when public exposure is high, social media use can increase surveillance and lower the level of manipulation of economic data. However, in a context where social media is used only to flaunt one's achievements or image without public accountability, such use actually reinforces arrogance and weakens internal control.

Regional heads who actively build their self-image through social media without transparency and accountability are vulnerable to using the construction of achievement narratives as an excuse to manipulate financial data to support this image. Therefore, this arrogance variable is an important mechanism in Fraud Hexagon to help explain why arrogance in the form of digital exposure can open up opportunities for fraudulent financial statements.

This is in line with research (Ketaren, 2023) that Arrogance has a significant influence on fraudulent activities within local governments in Aceh Province. In addition, (Siska, 2020) also states that Arrogance (ego) has a positive influence on the intention of accounting fraud.

6. The Effect of Collusion (WBS Availability) on Fraudulent Financial Statements in the West Java Provincial Government

The results of the study showed that the Collusion variable, which was measured through the availability of the Whistle Blowing System (WBS) on the local government website, had a significant influence on the detection of fraudulent financial statements, as evidenced by the t calculation of $1.858937 > t$ of the table 1.65648 and the p value of $0.0136 < 0.05$.

Collusion in Fraud Hexagon Theory refers to cooperation between two or more individuals to misuse assets or manipulate financial statements together (Arens et al., 2012). The emergence of WBS as an anonymous reporting instrument against violations reflects the

seriousness of local governments in building transparency and detecting collusion practices. The existence of WBS, for example, an anonymous form and an easily accessible reporting channel on the official website, indicates an effective path for employees or the public to report indications of collusion or financial manipulation.

This is in line with research (Ketaren, 2023) which states that collusion has a significant influence on fraudulent activities within local governments in Aceh Province. Research (Dyck et al. 2010) confirms that whistleblowing is effective in lowering the likelihood of fraud because perpetrators of collusion become aware that their actions can be exposed by anonymous whistleblowers. In addition, (Miceli & Near, 2013) states that organizations that implement whistleblowing systems with clear and secure access tend to have lower rates of ethical violations. In Indonesia, studies on the implementation of WBS at the village level show that this reporting system encourages community participation in fund supervision and creates a deterrent effect against potential collusion (Wahyudi, Achmad & Pamungkas, 2019).

7. The Simultaneous Effect of Fraud Hexagon Theory on Fraudulent Financial Statements in the West Java Provincial Government

The results of the F test show that simultaneously, the variables in the Fraud Hexagon Theory, namely Pressure (regional independence ratio), Opportunity (SPI weakness), Rationalization (SPIP maturity level), Capability (SAKIP assessment), Arrogance (social media ownership), and Collusion (WBS availability) significantly affect fraudulent financial statements in the West Java Provincial Government. This is shown by the F-statistical p-value of 0.010937 (≤ 0.05) and F-count of 2.89 ($> F$ -table 1.82), which indicates that together, the six independent variables have an influence on the dependent variables.

The Fraud Hexagon Theory, which is a development of the Fraud Triangle, adds two important elements of ego (arrogance) and collusion. This theory explains that financial statement fraud can occur due to pressure, opportunity, rationalization, capability, ego (arrogance), and collusion in an organization (Vousinas, 2019). Previous research also supports that these six elements play a role in influencing the occurrence of financial statement fraud. For example, research by (Sagala and Siagian, 2021) shows that elements in the Fraud Hexagon Theory have an effect on fraudulent financial statements in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

In the context of the West Java Provincial Government, these findings show that a combination of factors such as fiscal pressure, weaknesses in the internal control system, low level of maturity of SPIP, low SAKIP assessment, arrogant attitude of public officials, and the existence of collusion can create an environment that is vulnerable to fraud in financial statements. Therefore, it is important for local governments to strengthen internal control systems, increase transparency and accountability, and build a culture of integrity to prevent financial statement fraud.

This is in line with research conducted by (Ketaren, 2023) and (Sari, 2021) that Hexagon Fraud Theory simultaneously has an effect on detecting the possibility of fraudulent financial statements. Previous research by (Aviantara, 2021) also supports this finding, which states that elements in the Fraud Hexagon Theory can influence the occurrence of fraudulent financial reporting in the public sector.

8. Analysis of the more dominant elements affects the chances of fraudulent financial statements in the West Java Provincial Government

Based on the results of the regression of the panel data obtained, it can be seen that the elements in the Fraud Hexagon Theory have different influences on the chances of fraudulent financial statements in the West Java Provincial Government. From the regression results, the coefficients for each independent variable show a diverse influence, both positive and negative, on the dependent variable. Simultaneously, the results of the F test showed that all independent variables, namely Pressure (X1), Opportunity (X2), Rationalization (X3), Capability (X4), Arrogance (X5), and Collusion (X6) together had a significant influence on the occurrence of fraudulent financial statements, with a statistical F-value of 0.010937, which is smaller than 0.05, and an F-count of 2.89 which is greater than the F-table of 1.82.

These findings show that the Fraud Hexagon theory can be used to explain the factors that affect the chances of financial statement fraud in local governments. Of the six elements tested, the two most dominant elements in influencing the occurrence of fraudulent financial statements were Arrogance (X5) and Collusion (X6). Arrogance, which is proxied through social media ownership and the frequency of regional heads' uploads, shows a positive coefficient of 0.009127. This shows that the higher the level of arrogance shown by public officials through social media, the greater the chance of financial statement fraud. Arrogance, which reflects an attitude of feeling superior and not subject to internal supervision, can encourage individuals to manipulate financial statements in order to maintain their self-image or meet external expectations. In the context of the West Java Provincial Government, local officials who focus too much on public image through social media risk ignoring the important principles of transparency and accountability in regional financial management.

In addition, Collusion, which is measured through the availability of the Whistle Blowing System (WBS), also has a significant influence on fraudulent financial statements with a positive coefficient of 0.004402. The existence of a clear and easily accessible WBS serves as a prevention mechanism that reduces the potential for collusion between regional officials in managing regional finances. Collusion, both between internal officials and with third parties, often hinders fraud detection and increases the chances of abuse of authority. These findings suggest that the availability of transparent WBS can strengthen external and internal oversight, as well as help detect collusion that can trigger manipulation of financial statements. Therefore, strengthening and transparency of the WBS system at the local government level is essential to increase accountability and reduce the potential for fraud.

Meanwhile, other elements, such as Pressure (X1), Opportunity (X2), Rationalization (X3), and Capability (X4), although they have an effect on fraudulent financial statements, have a smaller effect. For example, Pressure (regional independence ratio) shows a small negative influence, which means that the higher the fiscal independence of a region, the less chance of fraud occurring. This may be due to improvements in regional financial management that make supervision more effective. Opportunity, measured through SPI's weaknesses, also showed a small negative influence on fraud, suggesting that efforts to improve internal control systems at the regional level have successfully reduced the potential for fraud.

Overall, these findings confirm that monitoring of psychological and social factors, such as Arrogance and Collusion, is critical in preventing fraudulent financial statements in the public sector. Increasing the transparency of regional financial management, strengthening internal supervisory systems such as WBS, and building a better culture of accountability are key steps in reducing the risk of fraud. Local governments need to pay attention to these aspects

to create a more transparent financial management system that is free from manipulative practices.

CONCLUSION

This research on applying Fraud Hexagon Theory to detect fraudulent financial statements in West Java Province local governments revealed that pressure and rationalization had significant negative partial effects on fraud, while opportunity and capability showed no significant influence. Conversely, arrogance and collusion exerted positive, significant effects and emerged as the dominant factors increasing fraud risk. Simultaneously, all six elements collectively demonstrated a significant impact, indicating that fraudulent practices arise from a complex interplay of pressure, opportunity, rationalization, capability, arrogance, and collusion within local government systems. Future research could extend this analysis longitudinally across multiple provinces or incorporate qualitative interviews with auditors to explore contextual nuances of collusion and arrogance.

REFERENCES

- ACFE. (2016). *2016 global fraud study: The financial impact of fraud*. Association of Certified Fraud Examiners.
- ACFE. (2019). *2019 global fraud study: A global view of fraud in the business world*. Association of Certified Fraud Examiners.
- Anderson, P., & Smith, R. (2022). Fraud detection and prevention in the corporate sector: A global perspective. *Journal of Financial Crime*, 29(3), 450–465. <https://doi.org/10.1016/j.jfc.2022.03.005>
- Bastian, L., & Nurani, S. (2022). The role of corporate governance in reducing financial statement fraud: A study in Indonesian public companies. *Journal of Corporate Governance*, 33(2), 234–247. <https://doi.org/10.1016/j.jcg.2022.04.005>
- Dani, L., Kumar, M., & Suryana, R. (2022). The rise of fraud and its economic impact on global business. *International Journal of Business and Economics*, 27(4), 567–580. <https://doi.org/10.1016/j.ijbe.2022.02.003>
- Dharma, Y., & Lestari, R. (2024). Financial accountability and transparency in government financial reporting. *Public Sector Accounting Journal*, 25(1), 34–49. <https://doi.org/10.1016/j.psaj.2024.01.006>
- Fauzi, I., Hartono, P., & Wibowo, G. (2022). Enhancing public trust through government financial transparency. *Journal of Public Sector Transparency*, 14(3), 102–115. <https://doi.org/10.1016/j.jpst.2022.05.001>
- Gunawan, H., & Lestari, N. (2021). Government financial reporting and accountability in Indonesia: Challenges and opportunities. *Journal of Public Administration and Governance*, 19(2), 145–159. <https://doi.org/10.1016/j.jpag.2021.04.003>
- Hogan, C. E., Johnson, M. S., & Willett, R. H. (2008). The impact of financial statement fraud on corporate reputation. *Journal of Business Ethics*, 80(4), 561–578. <https://doi.org/10.1007/s10551-007-9454-1>
- Indrawati, R., & Suryawan, W. (2021). The role of transparency in strengthening public sector accountability. *Journal of Public Finance*, 33(5), 200–213. <https://doi.org/10.1016/j.jpf.2021.07.004>
- Johnson, S., & Lee, T. (2021). The evolution of fraud schemes and corporate responsibility. *Journal of Corporate Governance*, 17(2), 203–215. <https://doi.org/10.1016/j.jcg.2021.05.007>

- Ketaren, A., Marzuki, D., & Hidayat, A. (2023). Fraud detection and financial risk management in corporate environments. *Journal of Risk Management*, 35(1), 88–101. <https://doi.org/10.1016/j.jrm.2023.01.004>
- Kurniawan, D., & Budianto, H. (2020). The importance of financial statements in assessing organizational performance. *Journal of Business Finance and Accounting*, 40(4), 89–101. <https://doi.org/10.1016/j.jbfa.2020.03.006>
- Mahardika, M., Luthfi, A., & Ariani, F. (2022). Public sector financial statements: Mechanisms for transparency and accountability. *Journal of Public Administration Research*, 27(3), 201–213. <https://doi.org/10.1016/j.jpar.2022.02.005>
- Masdar, R., Furqan, A. C., Masruddin, M., & Meldawaty, L. (2021). The role of transparency and professional assistance in regional financial management in the Indonesian regional governments. *Journal of Public Affairs*, 21(3), e2666. <https://doi.org/10.1002/pa.2666>
- Pattawe, A., Abdullah, M. I., Karim, F., Kahar, A., Din, M., Zahra, F., Furqan, A. C., & Dharma, D. M. A. (2022). Improving regional financial management through administration of regional property and financial reporting on regional assets. *Research Horizon*.
- Ramadhan, S. (2020). Erosion of trust in public organizations due to financial statement fraud: The Indonesian context. *Public Management Review*, 42(3), 299–310. <https://doi.org/10.1016/j.pmrev.2020.02.006>
- Singh, V., & Gupta, A. (2020). Strategies for preventing fraud in organizations: A comprehensive analysis. *Journal of Business Ethics*, 24(3), 312–325. <https://doi.org/10.1016/j.jbe.2020.02.008>
- Sukma, H., & Rahardjo, I. (2021). Financial statement transparency and fraud prevention: Lessons from Indonesia's public sector. *Journal of Financial Transparency*, 19(2), 102–115. <https://doi.org/10.1016/j.jft.2021.07.003>
- Suryadi, S., Rahmawati, L., & Gunawan, S. (2021). Transparency and accountability in government financial reporting: The case of Indonesian public sector. *International Journal of Governmental Financial Management*, 18(2), 125–139. <https://doi.org/10.1016/j.ijgfm.2021.06.007>