

Fraud Detection in Local Government (Case Study: Lampung Province)

Navira Erliani^(IM), Lindrianasari, and Rindu Rika Gamayuni

Economics and Business Faculty, Lampung University, Bandar Lampung, Lampung, Indonesia naviraerliani@gmail.com

Abstract. Fraud in the government sector does not only mean corruption, but can also be interpreted as actions taken by public officials and other parties who are involved in unfair and illegal actions in using the trust that is authorized and given by the community for the benefit of certain parties. The current phenomenon is that many state civil servants and public officials no longer have integrity because they have been affected by bribery and bribery activities, so they are no longer oriented towards serving the community. This study aims to conduct an analysis using the fraud hexagon model, namely pressure, opportunity, rationalization, ability, ego, and collusion on fraud detection in local governments with a case study in the province of Lampung from 2020 to 2021. This study uses analytical methods quantitative. The results of this study indicate the influence of each element on the fraud hexagon.

Keywords: fraud · fraud hexagon model · local government

1 Introduction

Fraud can be interpreted as an unlawful act committed by people from within and or outside the organization, with the intention of obtaining personal and or group benefits that directly harm other parties. In terms of delegation of authority from the central government to local governments, which is referred to as regional autonomy, it can be a phenomenon of potential transfer of fraud from the center to the regions. Based on research conducted by ACFE Indonesia, in 2019 the total loss due to fraud reached Rp. 873,430,000,000 with 239 fraud cases. Corruption is one of the types of fraud with the highest percentage being 64.4%, followed by asset abuse with a percentage of 28.9% and fraudulent statements 6.7% (ACFE Indonesia, 2020).

The Indonesian Corruption Watch (ICW) report also shows that state financial losses caused by corruption cases reached Rp 26.83 trillion in semester 1 of 2021. This number increased by 47.63% when compared to the same period in 2020 which was Rp. 18.17 trillion. The number of corruption cases found by law enforcement officers (APH) in that period was 209 cases with a total of 482 suspects who were processed by law Fig. 1.

Meanwhile, based on the corruption perception index (CPI) Indonesia 2021 is at number 38 on a scale of 0–100. This is known from data released by Transparency International Indonesia (TII). The Corruption Perception Index or Corruption Perception



Fig. 1. Trend of Enforcement of Corruption Cases in Semester I for 5 Years

Index is a description of the condition of corruption in a country. The lower the score obtained by a country, the more severe the corruption in that country Fig. 2.

From several previous studies found in accredited Indonesian journals and international journals, there has not been much use of the fraud hexagon theory as the basis for research analysis, such as research by [1]which uses triangle fraud theory in Regional Government, [2] which uses the fraud triangle theory to analyze the factors that influence corruption in local governments in Central Java. Research from [3] uses financial ratios to measure the factors that cause corruption in local governments, namely by using regional financial efficiency variables, Regional Financial Performance, financial solvency, and regional independence.

Researchers update proxies in the fraud hexagon element, namely the collusion element. Researchers try to find and determine the relationship factors that lead to fraud based on the fraud hexagon theory. On the basis of the description that the researcher has conveyed in the previous discussion, the researcher is interested in researching related to the title "Detection of fraud in local governments in Indonesia, Case Study: Lampung Province".



Fig. 2. Corruption Perception Index of Indonesia

2 Literature Review

1. Theoretical Basis

1.1 Agency Theory

Jensen & Meckling (1976) describe agency relationships: "Agency relationship as a contract under which one or more person (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent".

1.2 Fraud Taxonomy.

Association of Certified Fraud Examiner (ACFE) classifying fraud into asset misappropriation, fraudulent statement, and corruption (Priantara 2013). This grouping based on the analogy of branches and twigs is what causes this classification of fraud to be called the fraud tree or fraud taxonomy. The fraud tree or fraud taxonomy was first introduced by ACFE in 2008 in the Report of the Nations on Occupational Fraud and Abuse. In the future, the concept related to fraud tree is widely used because it can contextually identify fraud related.

1.3 Fraud Theory

In general, fraud is defined as any attempt that aims to deceive or present something wrong to another party. Fraud can also be interpreted as an effort to direct all the means that can be used, then encouraged by someone to gain advantage from others through improper delivery, including all surprises, deceit, misdirection and all that is unfair to commit fraud [4].

1. Hypothesis Development

1.1 There is a positive influence between the factors of pressure on fraud in local governments.

The results of the study by [5] showed that the pressure has no effect on fraudulent financial reporting, [6] states that pressure is a factor of fraud gives negative effect on local government fraud in Indonesia. This is not in line with the research conducted by [2] which shows that the pressure factor which is proxied by the capital expenditure variable has a positive and significant effect on corruption. The same results were also obtained from the research of [7] which stated that the pressure factor, as measured by the ratio of regional autonomy and local revenue, affects the incidence of fraud. so that the hypothesis is H_1 : There is a positive effect between the factors of pressure on fraud in local governments.

1.2 Opportunity factors have a positive effect on fraud in local governments.

A large number of assets from an area indicates that the area has a large size and has the ability to carry out its economic activities. Research by [8] and [6] found that capital expenditure has a positive effect on opportunities for corruption in local governments. This is not in line with research conducted by [9] and [5] that states that the opportunity element has no effect on fraudulent financial reporting. So, the hypothesis is H_2 : There is a positive influence between the opportunity factor for fraud in local governments.

1.3 Rationalization has a negative effect between rationalization factors on fraud in local governments.

In the research conducted by [10, 11] and [12] proved that there is no influence between internal control factors on the tendency of accounting fraud. However, this is not in line with the research conducted by [13, 14] and [15] which state that the government's internal control system has an effect on the tendency of accounting fraud. So, the hypothesis is H₃: There is a negative effect between rationalization factors on fraud in local governments.

1.4 the capability factor has a negative effect on fraud in local governments.

Capacity or competence is the fourth element in the fraud hexagon theory, namely the ability of management to commit fraud in its own interests, so that management as an agent does not act in the interests of the principal [16]. This element shows that high-level fraud will not be possible by parties who do not have the capability [17].

Research conducted by [1, 2], and [6] did not find the effect of the capability element of internal audit on corruption in local government. However, this is not in line with the research conducted by [18–20] which states that the capability of the internal audit unit/APIP and bureaucratic reform have a significant effect in reducing the number of corruption cases in local government. So, the hypothesis is H₄: There is a negative influence between the capability factor on fraud in local governments.

1.5 Arrogance has a positive effect on fraud in local governments.

Arrogance is the behavior of arrogance and selfishness of someone who feels capable of carrying out his fraudulent actions, thus creating high confidence that the person will not be caught cheating and will not be penalized [21]. Research conducted by [22]; [23] and [24] mention the results that arrogance has a positive effect on fraud. However, this is not in line with research conducted by [25] and [26] which show that the element of arrogance has no effect on the occurrence of fraud. So, the hypothesis is H₅: There is a positive influence between the arrogance factor on fraud in the local government.

1.6 Collusion has a negative effect on fraud in local governments.

A well-constructed whistleblowing system will certainly provide certainty of protection to witnesses or reporters for an indication of a violation committed by an employee. The implementation of these system policies will then have an impact on the formation of a good local government governance culture. Even in some developed countries such as Hungary, South Korea and the UK, the encouragement to report collusion in the company is given appreciation by awarding the WBS reporting party or called the leniency policy [27].

Various studies have shown that the whistleblowing system has a positive effect on fraud prevention ([28, 29]; [30]) which states that by implementing a good whistleblowing system in an organization, integrity and Openness will be formed so as to prevent fraud. However, other studies have shown that the whistleblowing system has no effect on fraud prevention because there is no data protection and the identity of the complainant

so that it affects employees in reporting fraudulent acts [31] and [32] which states that the Whistleblowing hotline has a significant negative effect on internal fraud. So, the hypothesis is H_6 : collusion factors have a negative effect on fraud in local governments.

3 Methodology and Data Analysis

The population in this study are all local governments in the Lampung province in the 2020–2021 fiscal year which have corruption cases and have been decided by the first level court of each region.

1. Variable Operation

The dependent variable used in this study is fraud, with the measurement used in the form of a dummy. 1 is given if there is fraud in local government and 0 if there is no fraud in local government.

2. Research Model

The research model can be written systematically as follows:

Fraud Detection = $\alpha + \beta_1$ pressure + β_2 Opportunity + β_3 Rationalization + β_4 capability + β_5 arrogance + β_6 collusion + ϵ .

4 Research Result and Discussion

1. Descriptive Statistics

From 6 variables, there are 5 variables whose standard deviation values are smaller than the average value, meaning that these 5 variables are spread out with relatively small deviations so that the data in this study can be said to be quite good. 1 variable has a minus value, resulting from the calculation of the pressure variable which is proxied by regional financial performance (Table 1).

In the pressure variable, local financial performance has a min value of -0.086 and a max value of 0.126. The mean value obtained is -0.00223. The value of std deviation of

	Pressure		Ration alization	Capab ility	Arrog ance	Coll usion
Min	-0,86	5,528	0	0	0	0
Max	0,126	27,17	1	1	1	1
Mean	-0,0022	13,99	0,7333	0,8	0,77	0,17
Std. Dev	0,047	5,45	0,4498	0,407	0,43	0,38
Sum	-0,066	419,8	22	24	23	5
Median	-0,0065	12,66	1	1	1	0

Table 1. Descriptive Statistics

financial performance data is .047258. The total financial performance data for 2 periods is -0.066 and the median value is -0.0065.

In the opportunity variable, The capital expenditure ratio data has a min value of 5,258, and a max value of 27,165. The average capital expenditure ratio data is 13,994. The deviation std value in the spending ratio data is 5.458926. The total expenditure ratio data obtained from 2 periods is 419,822 and the mean value is 12.6645.

In the rationalization variable, SPIP Level data obtains a min value of 0 and a max value of 1. The average of the two-period SPIP level data is 0.7333 and the std deviation value is 0.44978. In the capability variable, APIP Level data obtained a min value of 0 and a max value of 1. The average of the two-period APIP level data was 0.800 and the std deviation value was 0.40684. The total amount of data obtained based on two periods is 24.

In the arrogance variable, Dualism data obtained a min value of 0 and a max value of 1. The average Dualism data obtained from two periods was 0.7667 and the std deviation value was 0.43018. In the collusion variable, WBS data obtained a min value of 0 and a max value of 1. The average WBS data obtained from two periods was 0.1667 and the std deviation value was 0.37905 (See Table 2).

2. Hypothesis Test

1. There is a positive influence between the factors of pressure on fraud in local governments

H1 is not supported the factors of pressure has no effect on fraud in local governments, contradicts the research of [2] and [7] but supports the research of [5] and [6]. [6]

Coef	ficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	1.276	.327		3.898	.001
	Kinerja Keuangan Daerah	717	1.959	075	366	.718
	Rasio Belanja Modal	031	.018	370	-1.727	.098
	Level SPIP	215	.212	215	-1.018	.319
	Level APIP	154	.241	139	639	.529
	Dualisme	.215	.199	.206	1.079	.292
	WBS	004	.227	004	018	.985

Source: Processed data (2022)

explained that local governments with lower performance accountability and regional autonomy tend to show more cases of fraud.

2. Opportunity factors have a positive effect on fraud in local governments.

 H_2 is not supported so opportunity factors has no effect on fraud in local governments. These results support the research of [9] also [5] but contradicts the research of [8] and [6].

 Rationalization has a negative effect between rationalization factors on fraud in local governments.

 H_3 is not supported so Rationalization has positive effect on fraud in local governments. This result support [13, 14] and [15] but contradicts the research of [11] and [12].

4. The capability factor has a negative effect on fraud in local governments.

 H_4 is not supported so the capability factor has positive effect on fraud in local governments. It support the research conducted by [18, 19], and [20], but contradicts the research of [2] and [6].

5. Arrogance has a positive effect on fraud in local governments.

 H_5 is not supported so Arrogance has no effect on fraud in local governments. It support the research conducted by [21, 25], and [26] but contradicts the research of [22, 23] and [24].

6. Collusion has a negative effect on fraud in local governments.

 H_6 is not supported so collusion has positive effect on fraud in local governments. It support the research conducted by [28, 29], and [30] but contradicts the research of [32].

5 Summary

This study attempts to test the fraud detection on local government (study case: Lampung province) empirically with the proxy of pressure, opportunity, rationalization, capability, arrogance and collusion. Based on the research conducted, it was found that pressure, opportunity, and arrogance have no effect on fraud in local government. Whereas rationalization, capability and collusion has positive effect on fraud in local government.

6 Implications / Limitations and Suggestions for Further Research

This study has several limitations, the sample was small amount because only covers the province of Lampung with data for two years. Four of six independent variables using dummy. Further research is expected to use non-dummy in measuring fraud on local government and develop more standardized measurements of fraud on local government.

References

- M. Muhtar, S. Sutaryo, and S. Sriyanto, "CORRUPTION IN INDONESIAN LOCAL GOV-ERNMENT: STUDY ON TRIANGLE FRAUD THEORY," *Int. J. Bus. Soc.*, vol. 19, no. 2, pp. 536–552, 2018, https://www.researchgate.net/publication/327403571
- G. S. Wicaksono and T. J. W. Prabowo, "Analisis Faktor-Faktor yang Mempengaruhi Korupsi pada Pemerintah Daerah di Jawa Tengah Menggunakan Teori Fraud Triangle," *Own. Ris. J. Akunt.*, vol. 6, no. 1, pp. 1016–1028, Feb. 2022, https://doi.org/10.33395/owner.v6i1.710.
- 3. E. Maria and G. Gudono, "Empirical Test of Fraud Triangle Theory on Local Government (Evidence from Indonesia)," *Int. J. Appl. Bus. Econ. Res.*, vol. 15, no. 4, pp. 233–248, 2017, www.serialsjournal.com
- 4. E. F. Zainudin and H. A. Hashim, "Detecting Fraudulent Financial Reporting Using Financial Ratio Article Information," *J. Financ. Report. Account.*, vol. 14, no. 2, pp. 266–276, 2016.
- M. V. Jannah, A. Andreas, and M. Rasuli, "Pendekatan Vousinas Fraud Hexagon Model dalam Mendeteksi Kecurangan Pelaporan Keuangan," *Stud. Akunt. dan Keuang. Indones.*, vol. 4, no. 1, pp. 1–16, 2021, https://doi.org/10.21632/saki.4.1.1-16.
- A. Rahmasari and D. Setiawan, "The Determinants of Frauds in Local Governments," JDA J. Din. Akunt., vol. 13, no. 1, pp. 37–50, 2021, https://doi.org/10.15294/jda.v13i1.29137.
- E. Maria, A. Halim, and E. Suwardi, "Eksplorasi Faktor Tekanan untuk Melakukan Fraud di Pemerintah Daerah Indonesia," *J. Akunt. Publik*, vol. 1, no. 1, pp. 111–126, Aug. 2018, https:// doi.org/10.32554/jap.v1.i1.p111-126.
- E. Maria, A. Halim, E. Suwardi, and S. Miharjo, "EXPLORATION OPPORTUNITIES TO COMMIT FRAUD IN LOCAL GOVERNMENTS, INDONESIA," J. Akunt. dan Keuang. Indones., vol. 16, no. 1, pp. 1–16, Jun. 2019, https://doi.org/10.21002/jaki.2019.01.
- F. Nugroho and A. Rohman, "Pengaruh Belanja Modal Terhadap Kinerja Keuangan dengan Pendapatan Asli Daerah Sebagai Variabel Intervening," *Diponegoro J. Account.*, vol. 1, no. 2, pp. 1–16, 2012, http://repository.umy.ac.id/handle/123456789/8707
- N. R. Kusumastuti and W. Meiranto, "Analisis Faktor-Faktor Yang Berpengaruh Terhadap Perilaku Tidak Etis Sebagai variabel intervening," *Diponegoro J. Account.*, vol. 1, no. 1, pp. 1–15, 2012, [Online]. Available: http://ejournal-s1.undip.ac.id/index.php/accountingAn alisis
- 11. M. Faisal, "ANALISIS FRAUD DI SEKTOR PEMERINTAHAN KABUPATEN KUDUS," *Account. Anal. J.*, vol. 2, no. 1, pp. 67–73, 2012, [Online]. Available: http://journal.unnes.ac. id/sju/index.php/aaj
- S. F. N. Padhilah and D. I. Burhany, "Faktor-faktor yang Mempengaruhi Fraud (Studi Kasus pada Pemerintah Daerah Kabupaten Bandung Barat)," *Pros. 11th Ind. Res. Work. Natl. Semin.*, pp. 881–887, 2020.
- 13. A. Fitri, "FAKTOR-FAKTOR YANG MEMPENGARUHI KECENDERUNGAN KECU-RANGAN AKUNTANSI DENGAN KOMITMEN ORGANISASI SEBAGAI VARIABEL INTERVENING," J. Kaji. Akunt. dan Bisnis Terkini, vol. 1, no. 3, pp. 475–493, 2020.
- 14. A. A. Pane, "PENGARUH PENERAPAN SISTEM PENGENDALIAN INTERNAL PEMERINTAH TERHADAP KECURANGAN: SURVEI PADA PEMPROV SUMATERA UTARA," J. Akunt. DAN BISNIS J. Progr. Stud. Akunt., vol. 4, no. 2, pp. 40–48, Nov. 2018,https://doi.org/10.31289/jab.v4i2.1812.
- D. Didi and I. C. Kusuma, "FAKTOR-FAKTOR YANG BERPENGARUH TERHADAP KECENDERUNGAN KECURANGAN (FRAUD): PERSEPSI PEGAWAI PEMERINTA-HAN DAERAH KOTA BOGOR," J. Akunt. dan Keuang. Indones., vol. 15, no. 1, pp. 1–20, Jun. 2018, https://doi.org/10.21002/jaki.2018.01.
- M. Murtanto and D. Sandra, "Pengaruh Fraud Diamond Dalam Mendeteksi Tingkat Accounting Irregularities Dengan Komite Audit Sebagai Variabel Moderating," *Media Ris. Akuntansi, Audit. Inf.*, vol. 19, no. 2, pp. 209–226, 2019, https://doi.org/10.25105/mraai.v19i2.5320.

- H. Ozcelik, "an Analysis of Fraudulent Financial Reporting Using the Fraud Diamond Theory Perspective: an Empirical Study on the Manufacturing Sector Companies Listed on the Borsa Istanbul," *Contemp. Stud. Econ. Financ. Anal.*, vol. 102, pp. 131–153, 2020, https://doi.org/ 10.1108/S1569-375920200000102012.
- I. Fuadi and A. Mabrur, "FAKTOR-FAKTOR PENENTU KORUPSI PADA PEMERIN-TAH DAERAH DI INDONESIA," *Indones. Treas. Rev. J. PERBENDAHARAAN, Keuang. NEGARA DAN Kebijak. PUBLIK*, vol. 6, no. 4, pp. 317–328, 2021.
- 19. S. N. Sofiyani, "Pengaruh Dukungan Manajemen Dan Kapabilitas Auditor Intern Terhadap Pencegahan dan Pendeteksian Fraud," *J. Akunt.*, vol. 13, no. 1, pp. 86–95, 2018.
- K. F. Asiedu and E. W. Deffor, "Fighting Corruption by Means of Effective Internal Audit Function: Evidence from the Ghanaian Public Sector," *Int. J. Audit.*, vol. 21, no. 1, pp. 82–99, 2017, https://doi.org/10.1111/ijau.12082.
- A. Aprilia, "Analisis Pengaruh Fraud Pentagon Terhadap Kecurangan Laporan Keuangan Menggunakan Beneish Model Pada Perusahaan Yang Menerapkan Asean Corporate Governance Scorecard," J. ASET (Akuntansi Riset), vol. 9, no. 1, p. 101, 2017, https://doi.org/10. 17509/jaset.v9i1.5259.
- 22. R. J. Burke, "Why leaders fail: Exploring the darkside," *Int. J. Manpow.*, vol. 27, no. 1, pp. 91–100, 2006, https://doi.org/10.1108/01437720610652862.
- 23. R. Toscano, G. Price, and C. Scheepers, "The impact of CEO arrogance on top management team attitudes," *Eur. Bus. Rev.*, 2018.
- A. A. Rahman and A. Nurbaiti, "ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI KECURANGAN LAPORAN KEUANGAN DALAM PERSPEKTIF FRAUD PENTAGON (Studi pada Perusahaan Sektor Infrastruktur, Utilitas dan Transportasi yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2017)," J. Account. Financ., vol. 3, no. 2, pp. 34–44, 2019.
- 25. S. A. Faradiza, "Fraud Pentagon Dan Kecurangan Laporan Keuangan," *EkBis J. Ekon. dan Bisnis*, vol. 2, no. 1, pp. 1–22, 2019, https://doi.org/10.14421/ekbis.2018.2.1.1060.
- R. D. Agustina and D. Pratomo, "Pengaruh Fraud Pentagon Dalam Mendeteksi Kecurangan Pelaporan Keuangan," *J. Ilm. Manajemen, Ekon. Akunt.*, vol. 3, no. 1, pp. 44–62, 2019, https:// doi.org/10.31955/mea.vol3.iss1.pp44-62.
- R. D. Luz and G. Spagnolo, "Leniency, collusion, corruption, and whistleblowing," J. Compet. Law Econ., vol. 13, no. 4, pp. 729–766, 2017, https://doi.org/10.1093/joclec/nhx025.
- F. Islamiyah, A. Made, and A. R. Sari, "Pengaruh Kompetensi Aparatur Desa, Moralitas, Sistem Pengendalian Internal, Dan Whistleblowing Terhadap Pencegahan Fraud Dalam Pengelolaan Dana Desa Di Kecamatan Wajak," *J. Ris. Mhs. Akunt.*, vol. 8, no. 1, pp. 1–13, 2020, https://doi.org/10.21067/jrma.v8i1.4452.
- L. S. I. D. Jayanti and K. A. Suardana, "Pengaruh Kompetensi SDM, Moralitas, Whistleblowing dan SPI Terhadap Pencegahan Fraud Dalam Pengelolaan Keuangan Desa," *E-Jurnal Akunt.*, vol. 29, no. 3, p. 1117, 2019, https://doi.org/10.24843/eja.2019.v29.i03.p16.
- W. Y. Maulida and B. I. Bayunitri, "The influence of whistleblowing system toward fraud prevention," *Int. J. Financ. Accounting, Manag.*, vol. 2, no. 4, pp. 275–294, 2021, https://doi. org/10.35912/ijfam.v2i4.177.
- I. K. Sujana, I. M. S. Suardikha, and P. S. P. Laksmi, "Whistleblowing System, Competence, Morality, and Internal Control System Against Fraud Prevention on Village Financial Management in Denpasar," *E-Jurnal Akunt.*, vol. 30, no. 11, pp. 2780–2794, 2020, https://doi.org/ 10.24843/eja.2020.v30.i11.p06.
- R. F. Laming, A. Setiawan, and H. Saleh, "The Effect of whistleblowing Hotline, Surprise audit, and the independence of Audit Committee on internal Fraud: Facts of Banking Companies in Indonesia," *Int. J. Adv. Eng. Res. Sci.*, vol. 6, no. 12, pp. 401–406, 2019, https://doi. org/10.22161/ijaers.612.44.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

