The Determinants of Frauds in Local Governments

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Abstract

Purpose: This study seeks to test the effects of fraud diamond factors (pressure, opportunity, rationalization, and capability) on local governments' frauds.

Method: This study is a quantitative research that uses cross-section data. The purposive sampling method is used to select the sample. The sample consists of 67 local governments in Java Island in 2015-2018.

Findings: The results demonstrate that pressure as a fraud factor (measured with performance accountability and local autonomy variables) negatively affects Indonesian local governments' fraud. Opportunity, as operationalized with capital expenditures and fiscal decentralization, positively affects frauds. However, internal auditor's capability does not affect frauds. Rationalization (measured with public officials' wages) also does not affect frauds. Finally, capability, as operationalized with mayoral tenure, positively affects local governments' frauds.

Novelty: Prior studies on fraud tend to use loss indications from financial statements as the fraud proxy. However, since loss indications are not subject to the judicial process yet, loss indications do not have binding court rulings. Hence, fraud indicators need further litigation process in the courts. Accordingly, this research observes the fraud diamond theory in binding court decisions (inkracht). Legally binding fraud cases demonstrate the actual fraud cases that inflict state finance losses.

Keywords: *Local Governments; Fraud Diamond Theory; Corruption*

INTRODUCTION

Fraud of various types such as bribery, collusion, and nepotism continue to be pervasive and severe throughout Indonesia. In 2019, Indonesia ranked 62nd in overall corruption from 126 countries in the Rule of Law Index by the World Justice Project. Besides, the ICW's 2019 annual report indicates that law enforcers brought 580 fraud suspects into a trial, with most of them being civil servants, municipal heads, and local legislative heads/ members. Perpetrators commit fraud primarily through asset or budget misuse, mark-ups, fictitious reports, and embezzlement.

East Java Province has the most corruption litigation with 42 cases, followed by Central Java Province and West Java Province with 30 and 27 cases, respectively (ICW, 2021). In 2018, Corruption Eradication Commission managed to arrest 29 local government heads, 15 of them outside Java (Rachman, 2018). One of the most high-profile cases involved a former Bekasi Regent (Neneng Hassanah) who accepted a bribe of Rp 13 billion from the Lippo Group developer in

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exchange for the license to develop the Meikarta project in Cikarang, Bekasi Regency. The data indicates a serious problem in Indonesian local governments, especially in Java Island, because the perpetrators are those with capabilities like senior officers or organizational heads. Municipal heads commit fraud to promote their personal and group interests at the expense of public welfare. Consequently, many government programs are not implemented, and development targets and public welfare are not achieved.

Fraud is a deliberate illegal act that economically harms the victims or provides advantages to the perpetrators (Kranacher et al., 2011). SAS No. 99 defines fraud as a deliberate action that causes material misstatements in audited financial statements. Meanwhile, the Association of Certified Fraud Examiners (ACFE) classifies fraud into three types or typologies based on the modes: asset misappropriation, fraudulent financial reporting, and corruption.

Theories on fraud detection continue to develop. The fraud theory triangle by Cressey in 1953 has argued that fraud exists because of pressure, opportunity, and rationalization by fraudsters. Next, the fraud diamond theory by Wolfe and Hermanson in 2004 has added fraudsters' capability in the analysis. They argue that fraud will not occur without fraudsters' capabilities to commit/ conceal frauds by exploiting internal control weakness. Dorminey et al. (2012) define the following factors of the fraud diamond theory:
a. Pressure is individuals' motivation that encourages/ enforces them to commit fraud, including financial problems, occupational pressure, lifestyle.
b. Opportunity refers to chances that enable individuals to commit fraud, for example, due to weak internal control.
c. Rationalization represents thoughts that justify that fraudsters' actions are natural and morally acceptable within society. For example, individuals find that others commit frauds without legal consequences.
d. Capability is fraudsters' abilities and characters that motivate them to seek and exploit opportunities to commit frauds. For example, treasurers have certain authorities in financial administration.

Studies on the fraud theory in Indonesian local governments empirically show that the pressure factor, as measured with local autonomy ratio and local own-source revenues, affects fraud (Maria et al., 2018). Further, the pressure factor operationalized with financial targets (Kusuma et al., 2017) and local financial performance accountability (Muhtar et al., 2018) negatively affects frauds. Meanwhile, leverage (Andriana, 2015; Farizi et al., 2020) positively affects frauds. However, other studies, leverage (Kusuma et al., 2017) and local revenues (Muhtar et al., 2018), do not affect frauds.

Next, the opportunity factor that is measured with transfer revenues and internal control system weakness (Kusuma et al., 2017), fiscal decentralization (Maria et al., 2019a), and subdistricts, total assets, population number, and capital expenditures (Maria et al., 2019b) positively affect frauds. However, other proxies, including e-governance and internal auditors' capabilities (Muhtar et al., 2018) and transfer revenues (Andriana, 2015), do not affect frauds.

The rationalization factor that was measured with auditees' responses to audit results, findings, and recommendations (Maria et al., 2018) and audit responses (Muhtar et al., 2018) positively affects frauds. However, public officials' wages (Muhtar et al., 2018) negatively affect frauds. Another proxy (auditor opinion on financial statements) does not affect frauds (Kusuma et al., 2017), although Andriana (2015) finds that this proxy affects frauds.

The abilities to commit frauds are likely affected by director changes. Director changes often involve political issues and conflicts of interest from certain parties. Organizations/entities change their directors to improve their competence. However, organizations may change their directors who are well-informed of existing frauds within the organizations/ entities. Besides, newly appointed directors may need some time to adapt that their performance will be suboptimal. Suboptimal performance is prone to frauds. In the public sector, changes in local government heads are arguably similar to director changes. As a proxy of the capability factor, changes in local

government heads do not affect frauds (Farizi et al., 2020; Kusuma et al., 2017). Next, changes in local government heads (Andriana, 2015), positioning, intelligence, confidence/ego, coercion, deceit, and stress (Fitri & Nadirsyah, 2020) positively affect fraud.

This study seeks to examine Indonesian local government fraud by using binding verdicts (inkracht) of corruption cases. According to the legal literature, inkracht refers to legally binding decisions that offer no further legal actions. In other words, both parties (defendants and prosecutors) have accepted the decisions. It is worth noting that it takes a long time for the court processes on fraud cases to produce inkracht decisions in Indonesia. Defendants have legal rights to take further legal actions, starting from the initial trial, appeal trial, cassation, and judicial review. Prior studies on frauds tend to use loss indications from financial statements as the fraud proxy. However, since loss indications are not subject to the judicial process yet, loss indications do not have binding court rulings. Hence, fraud indicators need further litigation process in the courts. Accordingly, this research observes the fraud diamond theory in binding court decisions (inkracht). Legally binding fraud cases demonstrate the actual fraud cases that inflict state finance losses.

The pressure factor represents motivations that encourage individuals to commit frauds (Dorminey et al., 2012; Dellaportas, 2013). Rustiarini et al. (2019) reveal that individuals with higher pressures are more likely to commit frauds. This study explores the probability of external factor. We use two proxies to measure the pressure factor: performance accountability and local autonomy. Prior studies have shown that performance accountability negatively affects corruption (Muhtar et al., 2018; Rahayuningtyas & Setyaningrum, 2018). However, other studies find that accountability is not associated with corruption (Mondo, 2016; Lutfiana, 2018; Seno, 2018). Accountability evaluation facilitates fraud detection (Liu & Lin, 2012). Poor accountability erodes public trust and their support to the governments (Grimes, 2013). In this respect, highly accountable local governments manage public funds responsibly and arguably reduce corruption. Thus, the following is our first hypothesis:

H$_1$: Performance accountability negatively affects frauds in Indonesian local governments.

The second proxy for the pressure factor is local autonomy. Prior researches have shown that the ration of local autonomy positively affects corruption (Kurniawati, 2017; Maria et al., 2018). Gross Domestic Regional Product negatively affects corruption (Mondo, 2016). Hence, high-income countries exhibit lower corruption levels than low-income ones (Elbahnasawy, 2014). Thus, corruption can take in many local governments at varying autonomy levels (Heriningsih & Marita, 2013; Supriyanto, 2015). Local financial autonomy represents local governments' ability to finance their activities autonomously. Greater local autonomy indicates better public welfare and consequently fewer corruption cases. Local autonomy involves numerous parties to achieve local own-source revenue targets and monitor the use of these revenues to mitigate corruption. Based on these arguments, we propose the following hypothesis:

H$_2$: Local autonomy negatively affects frauds in Indonesian local governments.

The opportunity factor refers to the likelihood that individuals commit frauds (Dorminey et al., 2012). Rustiarini et al. (2019) reveal that individuals with greater opportunities are more likely to commit frauds. This study seeks to observe the opportunity factor using three proxies: capital expenditures, fiscal decentralization, and internal auditors' capabilities. Capital expenditures are the first opportunity proxy. Mauro (1998) proposes that capital expenditures facilitate fraudsters in the public sector to commit and conceal frauds. Capital expenditures increase fraud probability (Grimes et al., 2013; Maria et al., 2019b). In this respect, Tuanakotta (2010) identifies the following fraud modes in capital expenditures: mark-ups, mark-downs, embezzlement, illegal fees, power abuse, bribery, and gratification. Nugroho & Rohman (2012) observe that capital expenditures negatively affect local financial performance growth, indicating that fraudsters often abuse capital expenditures for their personal/group interests. Thus, capital expenditures are highly susceptible

to corruption, and greater capital expenditures increase corruption likelihood. Based on these arguments, the following is the third hypothesis:

H$_3$: Capital expenditures positively affect frauds in Indonesian local governments.

The second opportunity proxy is fiscal decentralization. Fiscal decentralization is the consequence of local autonomy implementation. Ideally, fiscal decentralization improves local governments' financial administration efficiency, effectiveness, transparency, and accountability (Isufaj, 2014). Indeed, fiscal decentralization enhances growth, public participation in decision making, and public service quality in several local governments (Liu, 2007). However, several countries experience increased corruption cases after implementing fiscal decentralization (Isufaj, 2014). Fiscal decentralization positively affects corruption in local governments because it increases the opportunities to commit corruption (Maria et al., 2019a; Fatoni, 2020). However, fiscal decentralization negatively affects local government corruption (Dong & Torgler, 2013; Dell'Anno & Teobaldelli, 2015; Lutfiana, 2018). Thus, fiscal decentralization can also reduce corruption. Fiscal decentralization controls corruption in local governments because it enables the public to control and detect corrupt public officials (Fiorino & Padovano, 2012; Albornoz & Cabrales, 2013). Because prior studies on the impact of fiscal decentralization on corruption show inconsistent results, we propose the following hypothesis:

H$_4$: Fiscal decentralization positively affects frauds in Indonesian local governments.

Furthermore, the third opportunity proxy is internal auditors' capability. Weak internal control is a factor that creates perceived fraud opportunities (Albrecht et al., 2008; Abdullahi et al., 2015). In this respect, internal auditors play a crucial role in preventing and detecting frauds (including corruption) because of their professional skills and exposures in managerial operations (Zanzig & Flesher, 2015). However, Muhtar et al. (2018) stated that internal auditors' capability does not affect corruption. Hence, the following hypothesis is proposed to test the effect of internal auditors' capability on corruption in Indonesian local governments:

H$_5$: Internal auditors' capability negatively affects frauds in Indonesian local governments.

The third factor is the rationalization that represents thoughts that justify that fraudsters' actions are proper and morally acceptable (Dorminey et al., 2012). Rationalization refers to justifications for committed frauds and deviations (Hidayah et al., 2016). SAS No. 99 also mentions that fraudsters use dissatisfaction in managerial policies as the rationalization to justify frauds. This study explores the rationalization factor that is proxied by public officials' wages. Employee wages or managerial compensation is an important managerial policy. When governments offer low salaries for their public officials and at the same time demand these employees to provide excellent services, these public officials tend to ask for greater compensation informally, or even illegally, which leads to corruption (Gong & Wu, 2012). Another study also finds that high public officials' salaries reduce corruption (Foltz & Opoku-Agyemang, 2015). Sulistiyowati (2007) establishes that individuals' (dis)satisfaction in their salaries does not affect their perception of corruption acts. Because prior studies on the effect of public officials' wages on corruption show inconsistent results, we propose the following hypothesis:

H$_6$: Public officials' wages negatively affect frauds in Indonesian local governments.

Lastly, the capability is the fourth factor of the fraud diamond theory that refers to fraudsters' attitudes and abilities to find and exploit opportunities to commit frauds (Dorminey et al., 2012). Hidayah et al. (2016) argue that capability refers to one's ability to commit fraud. This study explores the capability factor as measured with mayoral tenure. As suggested by the upper echelons theory, older managers are more experienced and use their better experience to distribute broader information. They are also more cautious to determine the appropriate information in making decisions (Hambrick & Mason, 1984; Hutzschenreuter & Horstkotte, 2013). Municipal

heads with longer mayoral tenures have better opportunities to learn and improve their mistakes and respond more conservatively to existing situations (Pahlevi & Setiawan, 2017). Consequently, they arguably make more ethical decisions and policies and are less likely to commit frauds (Prayitno, 2012; Rahmawati, 2015). However, longer mayoral tenures positively affect corruption (Yusup & Aryani, 2015). On the other hand, longer tenure also encourages municipal heads to act opportunistically and prioritize their personal or group interests over their municipals' performance because they understand how to exploit loopholes in the system for their interests (Prasetyo, 2014). As suggested by the agency theory, municipal heads as agents have better information of local governments than the public as principals. Based on these arguments, we propose the following hypothesis:

H$_7$: Mayoral tenure positively affects frauds in Indonesian local governments.

METHODS

This study is quantitative research, using secondary data with the type of cross-section data. We selected the sample from the municipal governments in Java Island by the purposive sampling method with the following criteria: (1) local governments that experienced fraud cases that caused public loss and resulted in binding court decisions (inkracht) in 2015-2018, (2) local governments that had financial statements have been audited by Indonesian Supreme Audit Board for the 2015-2018 period.

Table 1 presents the results of sample selection and table 2 presents the variable measurement. This study used secondary data. The dependent variable was generated from the Supreme Court's website. The independent variables were obtained from the Ministry of Civil Servant Empowerment and Bureaucracy Reform, Indonesian Supreme Audit Board, the Financial and Development Supervisory Board, and Statistics Indonesia. This study uses SPSS ver. 21 to run the descriptive and multiple linear regression analyses in analyzing the data. The following is the multiple linear regression equation in this study (equation 1):

$$FRAUD = \alpha + \beta_1 AKIP + \beta_2 AUTO + \beta_3 CAP + \beta_4 FISDEC + \beta_5 IACM + \beta_6 POW + \beta_7 MT$$
$$+ \beta_8 ASSET + \beta_9 PAD + \beta_{10} AREA + \varepsilon \quad .... (1)$$

RESULTS AND DISCUSSION

Table 3 presents the descriptive statistics and correlation of the research variables i.e.: fraud, performance accountability, local autonomy, capital expenditures, APIP's capability, public officials' wages, mayoral tenure, total assets, local own-source revenues, and size area. This study conducted a classical assumption test including normality, autocorrelation, multicollinearity, and heteroscedasticity tests. The Kolmogorov-Smirnov test indicates a Zstatistic of 0.165 with a significance value of 0.096 (> α=0.05). Hence, the residual value does not differ significantly from the standard values. Hence, it can be argued that the data is normally distributed. The Durbin-Watson analysis results in the Durbin-Watson statistic of 1.991. With the sample number of 67 and research variables of 11, the lower limit (LL) of 1.3689 and upper limit (UL) of 1.9484 (the Durbin-Watson statistic is 1.9484 < 1.991 < 2.6311). Thus, there is no autocorrelation in our regression model. The heteroskedasticity test using the Gletser test reveals that the independent variable's probability value is greater than α=0.05. Consequently, the regression model is free

Table 1. The Results of Sample Selection

Explanation	2015	2016	2017	2018	Total
Number of municipal governments in Java Island	119	119	119	119	476
Number of municipal governments not listed at Supreme Court's website	(96)	(103)	(97)	(113)	(409)
Number of the research sample	23	16	22	6	67

Source: Processed secondary data, 2021

Table 2. Variable Measurement

Name	Proxy	Code	Measurement	Reference
Dependent Variable				
Fraud	State loss	FRAUD	The natural logarithmic value of total state loss caused by the corruption case.	ACFE, 2016
Independent Variable				
PRESSURE:				
Performance Accountability	Predicate assessments results of the Governmental Unit Performance Accountability System	AKIP	Ordinal scale, with 1 = Very Poor (D), 2 = Poor (C), 3 = Fair (CC), 4 = Good (B), 5 = Excellent (BB), 6 = Satisfying (A), 7 = Very Satisfying (AA)	PerPres No. 29 Tahun (2014); Muhtar et al. (2018)
Local Autonomy	Local Autonomy Ratio	AUTO	A ratio between local own-source revenues and total revenues	Ritonga et al. (2012)
OPPORTUNITY:				
Capital Expenditures	Capital Expenditure Realization	CAP	The natural logarithmic value of the capital expenditure realization	Maria et al. (2019a)
Fiscal Decentralization	Rasio Desentralisasi Fiskal	FISDEC	The ratio between local own-resource revenues plus balance funds and total expenditures	Saputra (2012)
Internal auditors' capability	Level of Internal Audit Capability Models	IACM	Ordinal scale, with 1 = level 1 (Initial), 2 = level 2 (Infrastructure), 3 = level 3 (Integrated), 4 = level 4 (Managed), and 5 = level 5 (Optimizing)	IIARF (2009); Muhtar et al. (2018)
RATIONALIZATION:				
Public Officials' Wages	The ratio of public officials' wages	POW	The ratio between personnel expenditure and total local expenditures	Muhtar et al. (2018)
CAPABILITY:				
Mayoral tenure	Municipal heads' tenure	MT	The length of the head's tenure in office in 2015-2018.	Prasetyo (2014)
Control Variable:				
Size	Municipal's total assets	ASSET	The natural logarithmic value of total assets	Larassati et al. (2013)
	Municipal's total own-source revenues	PAD	The natural logarithmic value of total own-source revenues	Maria et al. (2018)
	Area size	AREA	The natural logarithmic value of area size (km^2)	Hartono et al. (2014)

Source: Researcher's Summary, 2021

from serious heteroskedasticity problems.

Table 3 shows that the average natural logarithmic value of frauds is 19.75 with a standard deviation of 1.63. Hence, on average, each fraud case in Indonesian local governments incurs an annual state loss of Rp 1.3 billion. The average value of performance accountability is 3.39 with a standard deviation of 0.94, implying that the performance accountability scores of local governments in Java Island fall within the CC category (Fair). However, six local governments in Java Island exhibit scores below CC, and 20 local governments have the highest performance accountability scores that fall within the B category (Good). The average local autonomy ratio is 20% annually. Tuban Regency has the lowest local autonomy ratio of 2%, and Jakarta Special Region Province the highest autonomy ratio of 76%. The average natural logarithmic value of capital

Table 3. Descriptive Statistics and Correlation

	FRAUD	AKIP	AUTO	CAP	FISDEC	IACM	POW	MT	ASSET	PAD	AREA
N	67	67	67	67	67	67	67	67	67	67	67
Min.	15.32	0.00	0.02	25.03	0.01	1.00	0.01	0.00	27.97	24.89	2.80
Max.	23.63	6.00	0.76	29.96	1.55	3.00	0.64	9.00	33.67	31.15	9.18
Mean	19.75	3.39	0.20	26.75	0.87	1.69	0.47	3.88	28.95	26.64	6.48
Std. Dev.	1.63	0.94	0.14	0.71	0.17	0.66	0.11	2.59	0.88	0.98	1.46
FRAUD	1.000										
AKIP	0.087	1.000									
	0.242										
AUTO	0.347	0.113	1.000								
	0.002**	0.181									
CAP	0.332	0.133	0.660	1.000							
	0.003**	0.141	0.000**								
FISDEC	0.054	0.041	0.219	0.016	1.000						
	0.333	0.371	0.037*	0.450							
IACM	-0.041	0.349	-0.131	-0.058	-0.026	1.000					
	0.372	0.002**	0.145	0.321	0.417						
POW	-0.041	-0.200	-0.427	-0.270	0.009	0.125	1.000				
	0.372	0.052	0.000**	0.013*	0.470	0.157					
MT	-0.097	0.363	-0.045	0.050	-0.129	-0.051	0.007	1.000			
	0.218	0.001**	0.357	0.345	0.149	0.342	0.477				
ASSET	0.355	0.165	0.802	0.878	-0.073	0.007	-0.276	0.114	1.000		
	0.001**	0.091	0.000**	0.000**	0.280	0.477	0.012*	0.178			
PAD	0.361	0.168	0.884	0.864	-0.042	0.095	-0.344	0.027	0.925	1.000	
	0.001**	0.087	0.000**	0.000**	0.368	0.222	0.002**	0.414	0.000**		
AREA	0.042	-0.092	-0.154	0.437	-0.087	-0.150	0.133	0.119	0.142	0.199	1.000
	0.367	0.229	0.106	0.000**	0.242	0.112	0.142	0.169	0.126	0.053	

**Significant at p<0.01   *Significant at p<0.05

expenditures is 26.75, with a standard deviation of 0.71. Tuban Regency has the lowest capital expenditure realization of Rp 74.3 billion, while Jakarta Special Region Province has the highest capital expenditure realization of Rp 10.2 trillion. The average fiscal decentralization ratio is 87%, with a standard deviation of 17%. Kebumen Regency has the lowest fiscal decentralization ratio of 1%, while Mojokerto has the highest ratio of 155%. Next, the average value of internal auditors' capabilities is 1.69, with a standard deviation of 0.66. Thus, the capabilities of local governments' internal auditors are in level 1 (initial). There are six local governments with the lowest level (level 1- initial), while 28 local governments have the highest internal auditors' capability level (level 3 – integrated). The average public officials' wage ratio is 47%, with a standard deviation of 11%. Kebumen Regency has the lowest ratio of 1%. Gunungkidul and Sukoharjo Regencies have the highest ratios of 64%. Next, the average mayoral tenure is 3.88 years. Thirty-six local government heads hold the first term of their tenure, while 31 others already have their second term.

We proxy the control variables with total assets, local own-source revenues, and area size. The average natural logarithmic value of total assets is 28.95, with a standard deviation of 88%. Probolinggo City has the lowest asset value of 27.97 or about Rp 1.4 trillion, and Jakarta Special Region Province has the highest asset value of 33.67 or Rp 421 trillion. The average natural logarithmic value of local own-source revenues is 26.64, with a standard deviation of 98%. Pangandaran Regency has the lowest local own-source revenues of 24.89 or about Rp 64.5 billion. In contrast, Jakarta Special Region Province has the highest local own-source revenues of 31.15 or about Rp 33.7 trillion. Next, the average natural logarithmic value of area size is 6.48, with a standard deviation of 146%. Mojokerto City has the smallest area size of 2.8 or about 16.47 km2, while Cianjur Regency has the widest area size of 9.18 or about 3,840 km2.

The correlation between variables shows that there are fourteen significant correlations between the independent variables: 1) Weak positive correlation (0.349) between internal auditor's

capability and performance accountability significant at 1%; 2) Weak positive correlation (0.363) between mayoral tenure and performance accountability significant at 1%; 3) Weak positive correlation (0.660) between capital expenditure and local autonomy significant at 1%; 4) Very weak positive correlation (0.219) between fiscal decentralization and local autonomy significant at 5%; 5) Weak negative correlation (-0.427) between public officials' wages and local autonomy significant at 1%; 6) Weak positive correlation (0.802) between assets and local autonomy significant at 1%; 7) Weak positive correlation (0.884) between total local own-source revenues and local autonomy significant at 1%; 8) Very weak negative correlation (-0.270) between public officials' wages and capital expenditure significant at 5%; 9) Weak positive correlation (0.878) between assets and capital expenditure significant at 1%; 10) Weak positive correlation (0.864) between total local own-source revenues and capital expenditure significant at 1%; 11) Weak positive correlation (0.437) between area size and total local own-source revenues capital expenditure significant at 1%; 12) Very weak negative correlation (-0.276) between assets and public officials' wages significant at 5%; 13) Weak negative correlation (-0.344) between total local own-source revenues and public officials' wages significant at 1%; 14) Weak positive correlation (0.925) between total local own-source revenues and assets is significant at 1%.

The simultaneous significance test (F-test) as the goodness-of-fit test produces a Fstatistic of 3.026 (positive) > Ftable of 1.96, implying that all independent and control variables simultaneously affect frauds. Further, the coefficient of determination test results in the adjusted R^2 value of 0.196 (19.6%), suggesting that the independent and control variables explain 19.6% of the variance of the dependent variable while other variables not analyzed in this study explain the remaining 80.4% variance. The multiple linear regression equation and hypothesis testing results are represented in the equation 2 and table 4.

$$FRAUD = 18.578 - 1.753\ AKIP - 1.832\ AUTO + 2.073\ CAP + 1.844\ FISDEC - 0.618\ IACM$$
$$- 1.735\ POW + 2.113\ MT + 1.934\ ASSET - 0.735\ PAD + 1.878\ AREA + \varepsilon \quad ...\ (2)$$

The Effect of Performance Accountability on Frauds in Indonesian Local Governments

The first hypothesis that predicts the performance accountability negatively affects Indonesian local governments' fraud is empirically supported. Local governments with lower performance accountability have greater fraud probabilities. Hence, improved performance accountability likely mitigates frauds. In this respect, the central government can use the Governmental Unit Performance Accountability System to monitor local governments' success rates in achieving their organizational goals and satisfaction in public service quality. The finding is consistent with Muhtar et al. (2018), who simply explains that the effective implementation of performance accountability by local governments reduces the pressure to meet public demands that will eventually mitigate corruption. The result also supports Grimes (2013), who shows

Table 4. The Results of Hypothesis Testing

	Hypothesis	Coefficient	Significance	Decision
H_1	Performance accountability negatively affects frauds.	-1.753	0.025	Supported
H_2	Local autonomy negatively affects frauds.	-1.832	0.021	Supported
H_3	Capital expenditures positively affect frauds.	2.073	0.042	Supported
H_4	Fiscal decentralization positively affects frauds.	1.844	0.049	Supported
H_5	Internal auditors' capability achievement negatively affects frauds.	-0.618	0.538	Not Supported
H_6	Public officials' wages negatively affect frauds.	-1.735	0.129	Not Supported
H_7	Mayoral tenure positively affects frauds.	2.113	0.038	Supported

Source: Secondary data, processed, 2021

that social and political accountability likely reduces corruption. Accountability is a top-down monitoring and supervision tool on public officials' performance (Kurniawati, 2017).

The Effect of Local Financial Autonomy on Frauds in Indonesian Local Governments

Hypothesis 2 that predicts that local financial autonomy negatively affects frauds in Indonesian local governments is empirically supported. The results imply that local governments with higher compositions of local own-source revenues perform better and have lower fraud cases. In general, higher local own-source revenues indicate more optimal local governments' performance in exploring their local potentials. Pressures to achieve local own-source revenue targets involve numerous parties to control the revenues' use that mitigate frauds. The result is in line with Supriyanto (2015), who documents that municipals with greater local own-source revenues composition exhibit better performance and lower corruption. Local governments achieve better performance by achieving higher budget efficiency, while efficiency is also the main tool to measure corruption eradication (Fahmy, 2014). Efficiency minimizes opportunities to commit corruption. However, our finding is inconsistent with Kurniawati (2017), who measures local autonomy with the local public's higher tax compliance and finds that this autonomy increases opportunities to commit corruption.

The Effect of Capital Expenditures on Frauds in Indonesian Local Governments

Hypothesis 3 that predicts the positive effect of capital expenditures on frauds in Indonesian local governments, is empirically supported. Greater capital expenditures increase fraud opportunities. Capital expenditures are rife with frauds (ICW, 2016) with various modes, including mark-ups, fictitious projects/ activities, and bribery. The finding supports Grimes (2013), who documents that capital expenditures create fraud opportunities. The result is also in line with Maria et al. (2019b), who demonstrate that capital expenditures increase fraud likelihood. Besides, frauds in capital expenditures involve both executive and legislative public officials (ICW, 2016). Procurement officers potentially abuse their public procurement power for their personal interests (Rustiarini et al., 2019).

The Effect of Fiscal Decentralization on Frauds in Indonesian Local Governments

Hypothesis 4 that predicts that fiscal decentralization positively affects frauds in Indonesian local governments, is empirically supported. Accordingly, local governments that receive greater fiscal balance transfers from the local government are more likely to commit frauds. Fiscal balance transfers cause local governments to depend heavily on these funds and innovate less to maximize their potential local own-source revenues. The finding supports Maria et al. (2019a), who show that fiscal decentralization affects the probabilities of corruption in Indonesian local governments. Local governments rely heavily on fiscal balance funds from the central government to finance their development programs (Syurmita, 2014). Fiscal decentralization in Indonesia leads to decentralized corruption in local governments (Saputra, 2012). Local governments have greater freedom to issue regulations related to their budgets and spending thanks to fiscal decentralization. Unfortunately, certain parties within local governments abuse the freedom to commit corruption by creating programs that benefit their personal or group interests at the expense of public ones (Chang & Geoffrey, 2002; Sjahrir et al., 2013; Hartono et al., 2014; Syurmita, 2014).

The Effect of Internal Auditors' Capabilities on Frauds in Indonesian Local Governments

Hypothesis 5 that predicts that internal auditors' capabilities negatively affect fraud in Indonesian local governments, is not empirically supported. The results suggest that internal auditors' capabilities do not affect frauds. Less reliable internal control systems and lack of professional, independent, and objective internal auditors do not necessarily lead to frauds. Internal auditors' capabilities that ideally mitigate frauds cannot fully guarantee corruption-free governments because internal auditors are local government heads' subordinates. Furthermore, their main function is not as the controller but as a strategic partner for local governments in

financial management, governance, risk management, internal control, and ensuring programs' efficiency, effectiveness, and economic values. Our finding is inconsistent with Zanzig & Flesher (2015) but supports Muhtar et al. (2018) and Khan (2006) who reveal that auditors do not have sufficient capability to detect and report corruption.

The Effect of Public Officials' Wages on Frauds in Indonesian Local Governments

Hypothesis 6 that predicts the negative effect of public officials' wages on frauds in Indonesian local governments, is not empirically supported. Our findings also indicate that public officials' wages do not affect frauds. Individuals' rational actions to commit frauds are not affected by their wage levels. Highly-paid individuals can still commit frauds, as indicated by many local government heads or senior officials who committed corruption. Hence, frauds are not only affected by low wages but also by fraudsters' internal factors, including greed. These results support Sulistiyowati (2007), who documents that individuals' perception of corruption cases is not affected by their (dis)satisfaction in their wages. The result is not in line with (Liu & Lin, 2012; Muhtar et al., 2018) who find that public officials' wages are negatively associated with corruption. In this respect, Lindner (2013) holds that increasing public officials' wages is ineffective without effective monitoring and control systems and greater transparency and access to information.

The Effect of Mayoral Tenure on Frauds in Indonesian Local Governments

Hypothesis 7 that predicts the positive effect of mayoral tenure on frauds in Indonesian local governments, is empirically supported. Thus, municipal heads' ability to commit frauds is affected by their mayoral tenure. Municipal heads who hold their positions longer are more likely to commit frauds. Based on the agency theory, municipal heads as agents have greater authority on government administration information than the public as principals. Hence, longer mayoral tenure enables municipal heads to learn better about opportunities to commit frauds. The finding supports Prasetyo (2014) who documents that local government heads with longer tenure understand their working systems better that they can abuse the loopholes for their interests. Opportunistic behavior indicates that humans tend to exploit opportunities for their personal or group interests. However, this finding is inconsistent with Rahmawati (2015) who observes that local government heads with longer tenure have better opportunities to fix mistakes from their experiences and are more conservative in dealing with various situations. Consequently, they are more likely to make ethical decisions and policies and less likely to commit corruption.

CONCLUSION

Our results empirically demonstrate that the pressure factor, as operationalized with performance accountability and local autonomy, negatively affects frauds. Hence, local governments with lower performance accountability and local autonomy likely exhibit more corruption cases. As a governmental policy, the Governmental Unit Performance Accountability System can detect and prevent corruption because such policy aims to create accountable, efficient, effective, and responsive governmental units to achieve greater governmental transparency. Capital expenditures and fiscal decentralization as the proxies of the opportunity factor positively affect frauds. However, internal auditors' capabilities do not affect frauds. Based on these findings, we conclude that greater capital expenditures increase fraud probability in local governments. Similarly, higher fiscal decentralization funds also increase fraud probability. Opportunities to commit fraud increase when the central government delegates its power to administer local spending to local governments. Consequently, fraudsters misuse these greater opportunities for their personal and group interests. Furthermore, internal auditors' capabilities that ideally mitigate frauds cannot fully guarantee corruption-free governments because internal auditors are local government heads' subordinates. Furthermore, their main function is not as the controller but as a strategic partner for local governments in financial management, governance, risk management, internal control, and ensuring programs' efficiency, effectiveness, and economic

values. Public officials' wages as the proxy of the rationalization factor do not affect frauds. Corruption is not caused by lower public officials' wages but due to rational motives. If fraudsters commit corruption solely because of the discrepancies between public officials' income and their needs, corruption should cease when the discrepancies have been fulfilled. Lastly, mayoral tenure as the proxy of the capability factor positively affects frauds. Local government heads with longer tenure have a better understanding of their governments' bureaucratic system and can exploit the loopholes to commit frauds.

Our results crucially imply that local governments need to focus on the factors that affect frauds. Increased performance accountability and local autonomy arguably support the corruption eradication strategy. Local governments need to initiate more monitoring activities and optimize internal control systems on their capital expenditures and use of fiscal decentralization funds. Further, internal auditors need to have more skeptical judgments in performing audits. This paper offers a practical insight by adding knowledge of the determinant factors of frauds in the public sector. This paper also beneficial for internal auditors to be more skeptical when performing audits. In addition, this paper practically gives a better knowledge of the factors that affect frauds in the public sector.

This study employs a very few sample size because it only uses local governments in Java Island. Consequently, we advise future studies to add the sample size to generate a broader perspective. Additionally, it is also necessary to add other factors to the analysis to expand the literature on local governments' frauds. This study only analyzes local government heads' characteristics with their mayoral tenure. Hence, future studies can employ the upper echelon theory by exploring the fraud capability theory. Besides, the rationalization factor and fraud pentagon theory are still limited. Hence, future studies need to explore these issues further.

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