






“Determinant of fraudulent behavior in the Indonesian rural bank sector using the fraud hexagon perspective”

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DETERMINANT OF FRAUDULENT BEHAVIOR IN THE INDONESIAN RURAL BANK SECTOR USING THE FRAUD HEXAGON PERSPECTIVE

Abstract

Asia Pacific is the region with the highest number of losses in the world. While Indonesia ranks fourth in the number of frauds, it has the highest increase in frauds based on the CPI index. This study aims to examine employee fraud triggered by the six components of the fraud hexagon. This study tries to develop the hexagon fraud element by adding power distance variable and using ethical values as a moderating variable. This study conducted a survey of 351 respondents. Using a purposive sampling method, the heads of funds, heads of credit, heads of treasurers and heads of accountants were selected as respondents in 128 rural banks in Bali. PLS displays an adjusted R² value of 0.331. Not all elements of the fraud hexagon are proven to influence fraud. Only pressure, opportunity, rationalization, and ego affect employees in committing fraud. Meanwhile, power distance as an additional element of the fraud hexagon can increase fraud. Ethical values can become an anti-fraud strategy in reducing employee pressure and ego in committing fraud. The results of this study will provide input for rural bank managers to anticipate factors that increase employee fraud and increase the role of ethical values in suppressing employees' desire to commit fraud.

Keywords

fraud, power distance, ethical value, survey

JEL Classification

M48, G32, G34

INTRODUCTION

Fraud in the world of work has become a primary concern for all entities and stakeholders (Anindya & Adhariani, 2019). Fraud caused by internal parties has a greater impact than fraud caused by external parties (Ratmono & Frendy, 2022). The ACFE survey results in 2022 stated that organizations lost 5% of their income due to fraud. The ACFE survey in 2022 proved that there were 2,110 fraud cases from 133 countries surveyed, with total losses exceeding \$3.6 billion. One of the regions with the highest losses is Asia-Pacific. While Indonesia ranks fourth in the number of frauds, it has the highest increase in frauds based on the CPI index. Indonesia's CPI score in 2022 was 34/100, while in 2021, with a score of 38/100, the most drastic decline since 2015. This proves that fraud eradication strategies and programs are not effective.

Based on ACFE (2018, 2020, 2022), the financial and banking industry is always ranked first regarding fraud. Rural banks and Commercial banks are types of banks in Indonesia based on Law Number 10 of 1998 concerning Banking (Ratmono & Frendy, 2022). There are 99 commercial banks in Indonesia in 2022, while the number of rural banks is 1,454. A rural bank has a narrower scope and area compared to commercial banks but must compete with commercial banks. Rural banks conduct conventional business activities and do not provide payment traffic services.

The limitations possessed by rural banks caused them to be unable to survive and eventually liquidated. In 2022, there were 1,454 rural banks in Indonesia, the highest in East Java Province with 260 rural banks (17.88%), Central Java Province with 249 rural banks (17.13%), West Java with 232 rural banks (15.96%), and Bali Province with 133 rural banks (9.15%). The spread of rural banks in several regions makes it difficult for the Financial Services Authority to conduct supervision. (Hidajat, 2020). From 2015 to 2022, there has been a continuous decline of rural banks in Indonesia. From 2018 to 2022, 60 rural banks were liquidated due to the revocation of business licenses. The liquidation of rural banks is partly due to fraud, 80% of the cause is due to weak supervision. Bali is ranked fourth for the highest number of rural banks, despite having the largest number of fraud cases. Realizing the serious impact of fraud, the driving forces that can motivate someone in committing fraud need to be analyzed. Vousinas (2019) argues that fraud is a complex and dynamic procedure.

1. LITERATURE REVIEW

Handling human resources in a company is an art. Not only thinking about their welfare, but also preventing employee fraud. There are three theories used in this study, namely fraud hexagon theory, virtue ethic, and Hofstede's cultural dimensions. The fraud hexagon theory was developed from Cressey's (1953) fraud triangle theory. There are three triggers that can make employees commit fraud in the company. This triangle theory is popularly used in examining employee motivation to commit fraud in organizations. Along with the development of empirical studies, the latest update of this theory is the Fraud Hexagon Theory with more complex elements, namely pressure, opportunity, rationalization, capability, ego, and collusion.

When examining a person's behavior, it will inevitably be related to the culture in which they are. Therefore, it is necessary to analyze the influence of culture on the tendency of employees to behave inappropriately. Bierstaker (2009) argues that culture plays an important role in determining fraud in a company. The most widely used cultural framework in accounting research is Hofstede's (2011) cultural dimension which consists of six dimensions such as power distance, uncertainty avoidance, individualism vs collectivism, masculinity vs femininity, long term vs short term, and indulgence. This study uses one of these national cultures in motivating employees to commit fraud, namely power distance.

This study emphasizes deontological ethics, namely virtue ethics. The purpose of human life is happiness. The happiness in question is not in the hedonistic sense (pleasure) but rather an activity of

the soul that feels happy because it fulfills the noble purpose of life. Virtue ethics focuses morality on the decision-maker. The ethics in this study are based on the philosophy of Hinduism, namely *Tri Kaya Parisudha*. *Tri Kaya Parisudha* is a religious philosophy that emphasizes ethics through thinking, saying, and doing good. By embedding ethical values in employees, it will reduce motivation to commit fraud. Based on this description, this study aims to analyze the factors that influence employees in committing fraud and the role of ethical values in reducing the desire to commit fraud.

The first element in the Fraud Hexagon Theory is pressure. The pressure felt by individuals is not necessarily felt by other individuals. Pressure can be in the form of personal pressure and work pressure. These pressures include pressure to meet financial needs, fulfill targets, frustration with the work environment, feeling unappreciated, job dissatisfaction, fear of losing their jobs, luxurious lifestyles, and greed. Employees who feel pressured both in terms of personal pressure and work pressure will look for ways to escape the pressure. One of the ways that can be taken is by fraud. In the banking sector, this is evidenced by Ratmono and Frendy's (2022) statement that pressure can increase fraud at Regional Development Bank in Bali. However, the relationship may not occur. In several studies provide evidence that pressure does not motivate employees to commit fraud (Anindya & Adhariani, 2019; Avortri & Agbanyo, 2020; Handoko & Tandean, 2021; Sahla & Ardianto, 2022; Said et al., 2017).

The second element is opportunity. Fraud can occur when opportunities arise in the employee's environment. A crucial tool in determining whether

fraud can be realized is the internal control system. Deficiencies in the internal control system in the banking industry for example tasks and responsibilities that are not clear, lack of supervision and standard operating procedures, delays in recording transactions, weak supervision of safe deposit boxes, and weak control over loans (Ratmono & Frendy, 2022). So, it is concluded that fraud is not possible if there is no opportunity. This is confirmed by the study by Ratmono and Frendy (2022) in the banking sector that opportunity plays a role in increasing fraud. But this relationship is not always the case. Based on the research results of Sahla and Ardianto (2022), even though there are opportunities, employees are not always used to act fraudulently.

The third element is rationalization. Employees will seek justification for the mistakes they make. Actions taken will not harm other people and immediately return the goods taken from the company. Generally, employees who commit fraud will rationalize by believing that their actions are necessary (Vousinas, 2019). This is in line with several researchers' research results (Koomson et al., 2020; Said et al., 2017, 2018) that rationalization can increase the tendency to fraud.

Capability is considered as the fourth most important element in the Fraud Hexagon Theory. Capability gives employees a boost by turning an existing opportunity into a fraud. Employees who can compile financial reports will be increasingly able to commit fraud on financial reports. In addition, employees who have positions in the company will be increasingly able to use their authority to commit fraud. This is confirmed by Wolfe and Hermanson (2004) that fraud is influenced by position and intelligence. Empirical evidence from previous research shows that capability influences increasing fraud (Ariyanto et al., 2021; Devi et al., 2021; Sahla & Ardianto, 2022). More specifically, several studies (Avortri & Agbanyo, 2020; Kazimean et al., 2019) state that the capability to increase fraud in the banking industry. Meanwhile, several other studies (Handoko & Aurelia, 2021; Handoko & Tandean, 2021; Ratmono & Frendy, 2022) show that capability does not trigger employees to commit fraud.

Ego (arrogance) is related to the thought that a person is capable of doing whatever he wants, in-

cluding committing fraud. Then the ego becomes the fifth element in the Fraud Hexagon Theory. According to this theory, individuals will often care about what others think of them. Individuals work to build and maintain reputation or status in life. Ego makes individuals have a sense of superiority, arrogance, authority, want to be admired, and selfish (Geis, 2012). An individual committing fraud with a strong ego is unafraid of the punishment that will befall him (Sahla & Ardianto, 2022). The same thing was expressed by several researchers (Devi et al., 2021; Sahla & Ardianto, 2022) who proved that ego/arrogance can be a motivation for fraud. However, contrary to several research results (Ariyanto et al., 2021; Handoko & Tandean, 2021) which reveal that ego is not a factor causing fraud.

Collusion is the last element of the Fraud Hexagon Theory. By collaborating with related parties, fraud will be easier to do and with a higher level of severity. Collusion can occur between employees within a company or with parties outside the company to commit fraud (Vousinas, 2019). Internal collusion is when all the individuals involved work for the same organization. Another type of collusion is external collusion, where one or several individuals collude with individuals outside the company to gain mutual benefits (Tseng, 2016). This is reinforced by the results of research that collusion can increase the occurrence of fraud (Sitorus & Scott, 2010).

It is felt that the six elements of the Fraud Hexagon still need to be developed to be able to capture the phenomenon of fraud in the banking sector. One factor to consider is power distance. Power distance is one dimension of Hofstede's culture. Hofstede (2011) states that the dimension of national culture related to wealth is power distance, which emphasizes the basic problem of individual inequality. According to Hofstede (1980b), Individuals are very dependent on leaders, when in a situation of high-power distance. Power distance indicates the extent to which individuals accept the unequal distribution of power within the organization (Clugston et al., 2000). Superiors consider subordinates to be inferior, unable to develop themselves, easy to accept hierarchy, subject to authority, and accept their social status. Individuals have a stronger fear of disagreeing with superiors

and show fewer questions of authority. Previous research analyzed the influence of power distance on corruption (Achim, 2016; Davis & Ruhe, 2003; Gaygısız & Lajunen, 2022; Pržulj & Kostadinović, 2014), with the result that the power distance score led to an increase in the corruption index. Lerner (2021) also states that power distance can motivate asset misappropriation.

Inconsistency in the results of previous research on the influence of pressure, opportunity, rationalization, capability, ego, collusion, and power distance on fraud motivates this study to retest these variables on fraud by adding moderator variables. Said et al. (2017) stated that Fraud Hexagon Theory elements need to be integrated with other elements to better prevent fraud. Since ethical values play a role as an anti-fraud strategy in the banking industry, ethics have a role as a moderating variable (Suh et al., 2018). Similar results were also conveyed by Sahla and Ardianto (2022) who examined the role of ethical values in moderating fraud pentagon in external auditors with the results that ethical values proved to be capable of being an anti-fraud strategy. This study differs from previous research in that the ethical values in this study emphasize thinking, saying, and doing good. In Hindu philosophy this is called *Tri Kaya Parisudha* (Priantini, 2021). By having high ethical values, fraud that occurs can be minimized.

In summary, previous research supports the relationship between the elements of fraud hexagon to the occurrence of fraud. In addition, one dimension of Hofstede’s culture, namely power distance, is also considered capable of motivating employees to commit fraud. Meanwhile, an ethical role in reducing fraud has been little studied by previous research. Moreover, there are still very few studies conducted to explore the relationship between these factors in the context of rural banks.

According to the theoretical review and prior research studies, the hypotheses are proposed as follows:

- H_{1a} : Pressure has a positive influence on fraud.
- H_{1b} : Ethics weakens the influence of pressure on fraud.
- H_{2a} : Opportunity has a positive influence on fraud.
- H_{2b} : Ethics weakens the influence of opportunities on fraud.
- H_{3a} : Rationalization has a positive influence on fraud.
- H_{3b} : Ethics weakens the influence of rationalization on fraud.

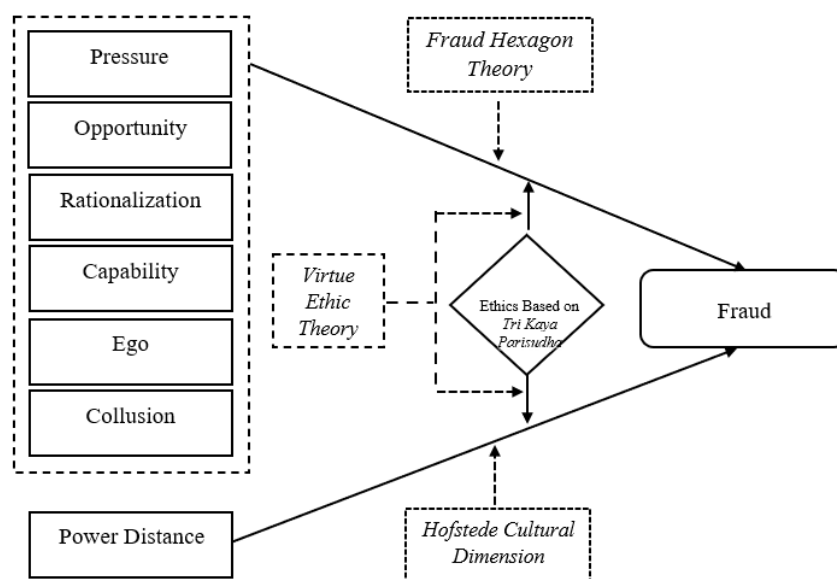


Figure 1. Research model

- H_{4a} : Capability has a positive influence on fraud.
- H_{4b} : Ethics weakens the influence of capability on fraud.
- H_{5a} : Ego has a positive influence on fraud.
- H_{5b} : Ethics weakens the influence of ego on fraud.
- H_{6a} : Collusion has a positive influence on fraud.
- H_{6b} : Ethics weakens the influence of collusion on fraud.
- H_{7a} : Power distance has a positive influence on fraud.
- H_{7b} : Ethics weakens the influence of power distance on fraud.

2. METHODOLOGY

This cross-sectional study was conducted in Indonesia from June 2023 to July 2023. The next section will specify the methods used in the study. The data is collected from 128 rural banks in Bali with total assets exceeding ten billion. By using a purposive sampling method, the respondents were the heads of fundraising, lending, treasury, and accounting. Respondents were chosen because they had the most involvement in fraud incidents. Of 4,284 bank employees, 386 employees were selected as samples. Finally, 351 questionnaires were returned and could be analyzed further. Respondents were dominated by women (213 respondents or 60.7%). The dominant educational level is S1 (252 respondents or 71.8%). The largest number of respondents in this study were Hindus (92.0%). The average working period of the respondents is more than ten years (40.7%), so they are considered sufficiently familiar with the condition of rural banks.

Table 1. Respondent characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	138	39.3%
	Female	213	60.7%
	Total	351	100%

Characteristics	Category	Frequency	Percentage
Position	Head of the fund	106	30.2%
	Head of credit	93	26.5%
	Head of treasury	34	9.7%
	Head of accounting	104	29.6%
	Head of accounting and Head of credit	8	2.3%
	Head of fund and Head of accounting	8	2.28%
	Head of treasury and Head of accounting	1	0.3%
	Total	351	100%
Education level	Senior High School	59	16.8%
	Diploma	31	8.8%
	Bachelor	252	71.8%
	Master Graduate	9	2.6%
	Postgraduate	0	0%
	Total	351	100%
Religion	Hindu	323	92.0%
	Islamic	10	2.8%
	Christian	11	3.1%
	Catholic Christian	2	0.6%
	Buddhism	4	1.1%
	Confucianism	1	0.3%
	Total	351	100%
Tenure of respondents	< 1 years	16	4.6%
	1-5 years	94	26.8%
	5-10 years	98	27.9%
	> 10 years	143	40.7%
	Total	351	100%

Based on the proposed model in Figure 1, the variables examined in this study are pressure, opportunity, rationalization, capability, ego, collusion, and power distance towards fraud which is moderated by ethical values. The ethical values in this study are based on the philosophy of Hinduism, namely *Tri Kaya Parisudha*. *Tri Kaya Parisudha* emphasizes the importance of thinking, speaking and doing good. The questionnaire includes two parts. The first includes demographic questions, the second consists of 49 questions based on previous studies and focus group discussions. Table 2 shows the variable scale in the study.

3. RESULT

PLS software (version 4.0) was applied for data analysis. The reliability of the measurement scale was evaluated with Cronbach alpha and the composite reliability to determine the quality of the construction scale. According to Hair et al.

Table 2. Dimensions and scales

Symbol	Scales	Sources
Pressure		
PR1	KPI achievement	Ratmono and Frendy (2022), Said et al. (2018), and Focus Group Discussion
PR2	Consequences of not achieving KPI	
PR3	Ease of achieving KPI	
PR4	The amount of income in meeting the needs	
PR5	The amount of income in fulfilling the lifestyle	
Opportunity		
OP1	Organizational structure adapts to business complexity	Guo and Eschenbrenner (2018), Ratmono and Frendy (2022), Said et al. (2018), Zuberi and Mzenzi (2019), and Focus Group Discussion
OP2	Not recruiting employees in accordance with operational procedures	
OP3	Mitigation of potential risks of fraud	
OP4	Adjustments are made to mitigate potential risks of change	
OP5	The company's accounting information system	
OP6	Informing employees of the benefits of internal control	
OP7	Transactions carried out without authorization	
OP8	Transactions are inputted not in accordance with accounting guidelines	
OP9	Review of audit results is not done adequately	
OP10	Tiered supervision has been carried out adequately	
Rationalization		
RT1	The bank is not harmed if employees use assets for personal use	Ratmono and Frendy (2022), Said et al. (2018), and Focus Group Discussion
RT2	It is normal for employees to use bank assets as long as they are returned	
RT3	Taking bank assets is reasonable because the bank is indebted to the employee	
RT4	The risks and responsibilities of employees are not proportional to the salary received	
Capability		
CP1	Employee's role in the organization	Kazimean et al. (2019), Ratmono and Frendy (2022), and Focus Group Discussion
CP2	Employees are multitasking	
CP3	Position gives authority to utilize assets	
CP4	Understanding of internal control related to the position being held	
Ego		
EG1	Caring about what others think of us	Koomson et al. (2020) and Focus Group Discussion
EG2	Other people's judgments impact self-confidence	
EG3	Lose self-esteem if you do something wrong	
EG4	Lose self-esteem if you commit misconduct	
Collusion		
CL1	Bank policies are determined by certain people in a transparent manner	Edelson et al. (2017), Tseng (2016), and Focus Group Discussion
CL2	Deviations are disguised with the cooperation of related parties	
CL3	Employees are recruited based on recommendations	
CL4	Relatives of employees go through easier credit analysis procedures	
CL5	Employee's relatives received higher interest rates on deposits	
Power Distance		
PD1	Superiors usually make decisions without coordinating with subordinates	Clugston et al. (2000) and Focus Group Discussion
PD2	Employees should not question decisions made by superiors	
PD3	Superiors often ask subordinates for important information	
PD4	Superiors do not delegate very important tasks to subordinates	
Ethics based on Tri Kaya Parisudha		
EV1	Not jealous when coworkers receive higher incentives	Kadjeng (1999), Said et al. (2018), and Focus Group Discussion
EV2	Good deeds will result in good rewards	
EV3	Speak the truth even if it hurts and harms yourself	
EV4	Keep telling the truth even if it hurts and harms others	
EV5	Continue to act according to operational procedures even when it is not profitable	
EV6	Adhere to operational procedures even when the situation is unfavorable	
Fraud		
FR 1	Receive a thank you note from the customer for the service provided	Kazimean et al. (2019), Ratmono and Frendy (2022), and Focus Group Discussion
FR 2	Receiving a thank you note from the customer for loan approval	
FR 3	Employee uses bank money for personal use	
FR 4	Employees claiming expenses outside of official receipts	
FR 5	Disclosure of data and information that is less fixed in the financial statements	
FR 6	Misstatement in the financial statements	
FR 7	Allowing errors in the financial statements	

Table 3. Discriminant validity with Heterotrait-Monotrait Ratio (HTMT)

Variable	Heterotrait-Monotrait Ratio (HTMT)								
	Ego	Ethical Value	Power Distance	Fraud	Collusion	Capability	Opportunity	Rationalization	Pressure
Ego	–	–	–	–	–	–	–	–	–
Ethical Value	0.125	–	–	–	–	–	–	–	–
Power Distance	0.204	0.229	–	–	–	–	–	–	–
Fraud	0.320	0.384	0.368	–	–	–	–	–	–
Collusion	0.089	0.121	0.065	0.130	–	–	–	–	–
Capability	0.100	0.113	0.029	0.085	0.092	–	–	–	–
Opportunity	0.253	0.276	0.225	0.334	0.153	0.049	–	–	–
Rationalization	0.089	0.094	0.115	0.171	0.073	0.038	0.072	–	–
Pressure	0.030	0.178	0.085	0.215	0.107	0.091	0.189	0.133	–

(2019), the rule of thumb for both Cronbach's alpha and composite reliability should be >0.7 . Discriminant validity, meanwhile, is measured using the Heterotrait-Monotrait Ratio (HTMT) value, and convergent validity is measured by the loading factor and AVE. A loading factor value > 0.7 is practically meaningful. In addition, the AVE value should be more than 0.5, and the HTMT should be less than 0.9. Thus, when an indicator is not achieved, it will be removed.

Preliminary testing of validity and reliability shows that the pressure indicator (PR1) has an outer loading factor value of 0.597 below 0.7, meaning that this measurement has not met the requirements of convergent validity. Recalculation (reestimation) of convergent validity needs to be done by eliminating one invalid indicator of the pressure construct. Retesting is presented in Tables 3 and 4. Table 3 shows that the Heterotrait-Monotrait Ratio (HTMT) value is smaller than 0.9. Meanwhile, Table 4 shows that the loading factor value is more than 0.7, and the value of AVE > 0.5 . So, it is concluded that each of these constructs meets the validity criteria.

Reliability testing is presented in Table 4, with all Cronbach alpha values above 0.7 and the value of AVE above 0.5. This indicates that each construct has met the reliability requirements. The purpose of this study is to determine the factors that affect fraud in rural banks. These factors are elements of the fraud hexagon theory and power distance towards fraud, which is moderated by ethical values. Furthermore, Table 4 illustrates the respondents' responses to

each indicator. All variables are described using average values. Based on this data, respondents perceive pressure, opportunity, rationalization, capability, ego, collusion, power distance and fraud at a low level. On the other hand, employees have a high perception on ethical values.

PLS presents an adjusted R^2 value of 0.331, which indicates that all predictor variables (pressure, opportunity, rationalization, capability, ego, collusion, power distance, and ethical values) describe 33.1% of the employee fraud variance.

The hypothesis testing results show that the six components of the fraud hexagon were not fully shown to influence individuals to commit fraud at Rural Banks in Bali. This finding is in line with Handoko and Aurelia (2021) and Handoko and Tandean (2021) that not all elements of the fraud hexagon influence fraudulent behavior. Pressure, opportunity, rationalization, and ego are components of the Fraud Hexagon that influence increasing fraud. Meanwhile, the two other factors, such as capability and collusion, are not proven to be able to increase fraud. In contrast, power distance, which is a new variable integrated in the fraud hexagon, is found to be able to increase fraud in rural banks in Bali. From the examined factors, power distance proved to have the greatest influence in motivating fraud seen from the original sample value. In addition, ethical values can weaken the effects of pressure and ego against fraud committed. Ethical values proved to be an anti-fraud strategy in the banking sector. This implies that high ethical values among employees can prevent fraud.

Table 4. Descriptive statistics and instrument testing

Variable	Items	AVE (> 0.5)	Composite Reliability (> 0.7)	Cronbach's α (> 0.7)	Loading Factor (> 0.7)	t-statistic (> 1.96)	p-value (< 0.05)	Mean	St. Deviation
Pressure	PR	0.800	0.933	0.917	–	–	–	2.54	0.920
	PR2				0.836	34.410	0.000	2.56	0.923
	PR3				0.896	55.991	0.000	2.68	0.881
	PR4				0.919	69.271	0.000	2.44	0.908
	PR5				0.923	78.092	0.000	2.48	0.985
Opportunity	OP	0.552	0.920	0.911	–	–	–	1.83	0.660
	OP1				0.751	20.069	0.000	1.80	0.680
	OP2				0.763	18.195	0.000	1.85	0.654
	OP3				0.745	21.895	0.000	1.74	0.607
	OP4				0.708	15.575	0.000	1.96	0.519
	OP5				0.731	17.729	0.000	1.86	0.643
	OP6				0.765	23.803	0.000	1.90	0.468
	OP7				0.769	27.504	0.000	1.62	0.723
	OP8				0.748	23.099	0.000	1.69	0.817
	OP9				0.726	17.834	0.000	2.04	0.794
OP10	0.724	14.328	0.000	1.87	0.659				
Rationalization	RT	0.775	0.955	0.906	–	–	–	1.69	0.670
	RT1				0.884	15.317	0.000	1.64	0.644
	RT2				0.876	15.973	0.000	1.77	0.742
	RT3				0.898	15.609	0.000	1.71	0.681
	RT4				0.863	13.462	0.000	1.62	0.593
Capability	CP	0.768	0.960	0.906	–	–	–	2.51	0.730
	CP1				0.897	3.865	0.000	2.56	0.798
	CP2				0.872	3.948	0.000	2.26	0.615
	CP3				0.846	3.746	0.000	2.31	0.636
	CP4				0.890	3.901	0.000	2.89	0.864
Ego	EG	0.780	0.911	0.906	–	–	–	1.79	0.820
	EG1				0.839	34.850	0.000	2.02	0.901
	EG2				0.901	63.736	0.000	1.81	0.878
	EG3				0.898	43.032	0.000	1.71	0.722
	EG4				0.895	38.638	0.000	1.62	0.760
Collusion	CL	0.660	0.985	0.876	–	–	–	2.34	0.890
	CL1				0.823	5.854	0.000	2.38	0.843
	CL2				0.833	5.806	0.000	2.22	0.910
	CL3				0.772	5.215	0.000	2.51	0.884
	CL4				0.860	5.165	0.000	2.34	0.919
	CL5				0.769	5.114	0.000	2.23	0.885
Power Distance	PD	0.630	0.810	0.802	–	–	–	2.27	0.890
	PD1				0.702	12.486	0.000	2.29	0.904
	PD2				0.882	38.797	0.000	2.27	0.896
	PD3				0.794	25.036	0.000	2.10	0.801
	PD4				0.786	16.011	0.000	2.42	0.947
Fraud	FR	0.550	0.866	0.864	–	–	–	1.79	0.810
	FR1				0.761	24.018	0.000	1.91	0.795
	FR2				0.770	30.914	0.000	1.78	0.755
	FR3				0.748	22.623	0.000	1.30	0.609
	FR4				0.758	28.575	0.000	1.71	0.718
	FR5				0.715	19.829	0.000	1.88	0.879
	FR6				0.710	20.914	0.000	2.38	0.978
	FR7				0.726	19.191	0.000	1.55	0.921
Ethical Value	EV	0.666	0.901	0.898	–	–	–	4.09	0.580
	EV1				0.899	52.358	0.000	4.04	0.608
	EV2				0.785	25.623	0.000	4.18	0.578
	EV3				0.868	48.767	0.000	4.03	0.602
	EV4				0.707	21.324	0.000	4.06	0.483
	EV5				0.825	33.081	0.000	4.18	0.666
	EV6				0.796	28.118	0.000	4.06	0.558

Table 5. Hypothesis testing

Hypothesis	Description	Original Sample (O)	P-value	Decision
H _{1a}	PR => FR	0.097	0.034	H _{1a} accepted
H _{1b}	PR · EV => FR	-0.110	0.014	H _{1b} accepted
H _{2a}	OP => FR	0.131	0.018	H _{2a} accepted
H _{2b}	OP · EV => FR	-0.086	0.054	H _{2b} rejected
H _{3a}	RT => FR	0.099	0.029	H _{3a} accepted
H _{3b}	RT · EV => FR	-0.036	0.392	H _{3b} rejected
H _{4a}	CP => FR	0.004	0.933	H _{4a} rejected
H _{4b}	CP*EV => FR	0.034	0.508	H _{4b} rejected
H _{5a}	EG => FR	0.145	0.006	H _{5a} accepted
H _{5b}	EG · EV => FR	-0.112	0.018	H _{5b} accepted
H _{6a}	CL => FR	0.079	0.204	H _{6a} rejected
H _{6b}	CL · EV => FR	0.093	0.081	H _{6b} rejected
H _{7a}	PD => FR	0.216	0.000	H _{7a} accepted
H _{7b}	PD · EV => FR	-0.001	0.980	H _{7b} rejected

4. DISCUSSION

The purpose of this study is to examine the interaction between the elements of fraud hexagon theory and power distance on fraud. It supports the Fraud Hexagon Theory that pressure, opportunity, rationalization, and ego motivate employees to commit fraud. Pressure is the first point of fraud and a strong motive for individuals to commit fraud (Vousinas, 2019). Individuals who feel non-shareable problems (unable to reveal their life problems to others) will feel uncomfortable and seek solutions in the form of violations (Ventura & Daniel, 2010). In addition, the consequences of a work will lead individuals to engage in fraudulent behavior (Hooper & Pornelli, 2010). Examples of personal pressures include lifestyle, insufficient salary, family burden, and unexpected expenses. While examples of job pressures are high targets, workload, and unachieved bonuses. These empirical results are consistent with the results of research in the banking industry conducted by Ratmono and Frendy (2022), Kazimean et al. (2019), Hollow (2014), and Avortri and Agbanyo (2020) in the banking sector. In addition, the findings of this study are also relevant to the results of research carried out with secondary data on banks on the stock exchange (Machado & Gartner, 2018).

Opportunity positively affects fraud. The lack of internal control of a company will lead to high opportunities for employees to commit fraud. The results of this study support research in the banking industry by Ratmono and Frendy (2022), Said

et al. (2017), Kazimean et al. (2019), Asmah et al. (2020), and Avortri and Agbanyo (2020). In addition, the findings of this study are also in line with Machado and Gartner (2018) who use secondary data on banking. Individuals may commit fraud when they believe internal control systems in the workplace are weak (Vousinas, 2019).

Employees who have a strong feeling of rationalization will be more likely to commit fraud. The findings of this study confirm the studies in the banking industry carried out by Kazimean et al. (2019) and Avortri and Agbanyo (2020). In addition, the findings of this study are in line with Machado and Gartner (2018) who used secondary data. Based on the hexagon theory, employees involved in fraud will rationalize by believing that their actions are necessary or will not harm other people (Vousinas, 2019).

The capabilities and positions of employees are not a contributing factor to the possibility of fraud. This means that ability and position are not a consideration for employees in committing fraud in their company. These results are consistent with Ratmono and Frendy (2022) in the banking industry. In addition, the findings of this study are also in line with Handoko and Tandean (2021) who used secondary data. This finding contradicts the Fraud Hexagon Theory, which argues that capability increases the ability of employees to commit fraud. Even though employees have positions and abilities, they cannot use their authority for personal gain. This is due to the corporate governance effectiveness to detect and prevent fraud.

Ego positively affects fraud: the higher an employee's ego, the more likely he is to commit fraud. Employees with a high egoism attitude are likely to do everything according to their wishes. They do not pay attention to their surroundings because most of them think what they are doing is correct. Previous research has not examined ego as an element of hexagon theory in the banking industry. These empirical results are consistent with Devi et al. (2021) and Handoko and Aurelia (2021) who analyze the role of ego in fraud using secondary data. In addition, a survey conducted by Sahla and Ardianto (2022) on external auditors showed that ego affects the occurrence of fraud.

Internal and external collusion cannot contribute to fraud. There has been no previous study that conducted a survey in the banking industry. However, the findings of this study are in line with Handoko and Aurelia (2021) on the manufacturing industry on the stock exchange. This finding cannot support the Fraud Hexagon Theory which argues that collusion is an important element that increases the likelihood of fraud in a company. The relationship between employees and related parties, both internal and external, does not determine the perception of employees in conducting fraud. Respondents perceived low collusion in rural banks. This is due to the existence of good corporate governance that can detect collusion (Achmad et al., 2022). Rural bank governance is regulated in the Indonesian Financial Services Authority. The low level of collusion is due to an effective corporate governance system in monitoring employees.

This finding supports Hofstede's culture dimension. High power distance can increase cheating. This means that the higher the power distance between employees and their managers, the more likely employees are to commit fraud. These empirical results are consistent with Achim (2016), Davis and Ruhe (2003), Gaygısız and Lajunen (2022), Mihret (2014), and Pržulj and Kostadinović (2014) who used the Corruption Perception Index (CPI) as a proxy for fraud, showing that power distance is a predictor of fraud committed by employees. Meanwhile, Larner (2021) found that power distance can motivate employees to commit asset misuse. He used many employees in four different countries in analyzing the misuse of assets.

According to Larner (2021), Mihret (2014), and Pržulj and Kostadinović (2014), among the six dimensions of Hofstede's national culture analyzed, power distance is the strongest national culture that motivates fraud. So, the results of this study support Hofstede's (2011) statement that power distance is a dimension of national culture related to wealth.

Moreover, this study also successfully provides support for virtue ethics that employees will use their virtue ethics in decision making. The ethics that drive employee behavior are those in accordance with the principles of goodness, not ethics based on expediency. Ethical values can reduce the effects of the pressure and ego in committing fraud. An effective strategy to prevent fraud according to Suh and Shim (2020) is ethical values. The results of this study also support the statement of Said et al. (2017) which states that it is important for banks to ensure that their employees comply with regulations and do not practice fraud, by instilling ethical values. This is in line with Ratmono and Frendy (2022) that ethical values can moderate the effect of pressure on fraud in the banking industry. In addition, Sahla and Ardianto (2022) who conducted a survey of external auditors also stated that ethical values can moderate the effect of ego on fraud. These empirical results provide advice for rural bank management to practice ethical values in employees to control employees' desire in committing fraud.

Hair et al. (2019) state that the final step in data processing using PLS is to check one or more robustness tests to maintain the stability of the results. This study only uses unobserved heterogeneity in measuring robustness. The PLS-SEM analysis assumes that the data analyzed is homogeneous from the population under study. According to Hair et al. (2019), the conclusions made are not biased if the structural model test comes from a homogeneous population. According to Sarstedt et al. (2019), unobserved heterogeneity occurs when data subgroups produce substantially different models. If this occurs, model estimation based on all the data is potentially biased.

Based on Table 6, the lowest value of AIC3 is in segment number 2, while CAIC has the lowest value in segment number 1. Alternatively, the lowest

Table 6. Finite mixture (Fimix) segmentation

Fit Index Measures	1 Segment	2 Segment
AIC (<i>Akaike's information criterion</i>)	872.896	826.023
AIC3 (<i>modified AIC with Factor 3</i>)	888.896	859.023
AIC4 (<i>modified AIC with Factor 4</i>)	904.896	892.023
BIC (<i>Bayesian information criterion</i>)	934.669	953.429
CAIC (<i>consistent AIC</i>)	950.669	986.429
MDL5 (<i>minimum description length with factor 5</i>)	1309.759	1727.053
EN (<i>normed entropy statistic</i>)	0.000	0.383

AIC3 is in segment 2, while the lowest BIC is in segment 1. The lowest AIC4 is in segment number 2, while the lowest BIC is in segment number 1. Based on this analysis, segment number 1 and segment number 2 have the same proportion to be selected. The final step is to look at the Entropy value using segment membership probabilities to show reliability. Based on Table 6, the entropy criterion value is $0.383 < 0.50$, so this study is in segment number 1. This means that the data analyzed in this study is homogeneous. From the robustness test results, it can be seen that the research model is robust.

The survey method actually contains weaknesses, namely the data collected is only based on respondents' perceptions, not on the detection of the audit process. However, even though it is only based on perceptions, it is sufficient because employee fraud in the banking industry is seen as a critical issue so it will be difficult to find out the actual information (Suh et al., 2018). Personal biases and judgment errors also limit the interpretation of survey methods. This study attempts to minimize such biases by ensuring confidentiality, using reverse questioning techniques, and conducting response bias tests.

CONCLUSION

This study explores the determinants of fraud through a survey of 128 rural bank employees. Based on quantitative research methods, this study confirms the hypothesis that pressure, opportunity, rationalization, ego, and power distance can increase employee fraud. In addition, the findings also confirm that ethical values appear to contribute to controlling employees' pressure and ego to commit fraud. Thus, the findings of this study provide four of the six elements from fraud hexagon theory with respect to fraudulent behavior in companies. In addition, as part of Hofstede's cultural dimension, power distance has an important part to play in contributing to the increase of fraud. This study also provides support for ethical values based on virtue ethics, which states that ethical values can play a role as an anti-fraud system. Managers should be able to reduce employee motivation to fraud by increasing employees' values of ethics. High banking regulations will decrease the tendency of employees in committing fraud. Thus, further research beyond the banking sector is recommended.

AUTHOR CONTRIBUTIONS

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