



Analysis of Fraud Prevention Actions by Banking Employees

Veni Anggraini ^{1*}, Rosidi ², and Oyong Lisa ³

¹ Postgraduate Student of Master of Management - Gajayana University, Malang, Indonesia

Email: veniwae12@gmail.com¹

^{2,3} Postgraduate Lecturer - Gajayana University, Malang, Indonesia

² Email: rosidi.mlg@gmail.com², oyong.lisa68@gmail.com³

*Corresponding Author Email: veniwae12@gmail.com

Received: October 04, 2024; Revised: October 14, 2024; Accepted: October 29, 2024

Abstract

Fraud is a form of fraud committed by banking officials to gain illegal profits from banks or customers. This study aims to determine fraud prevention measures in the banking sector through organizational culture variables, internal auditors, whistleblowing and internal control systems. The internal control system in this study acts as an intervening variable. We used a survey of all employees of rural credit banks in Kediri City to test the causal relationship in this research variable. We used multiple linear analysis for the data analysis method. The results of the study showed that organizational culture, whistleblowing and internal control systems have a significant effect on fraud prevention in rural credit bank services. On the other hand, the role of internal auditors does not affect fraud prevention efforts. Organizational culture and the role of internal auditors have a significant effect on fraud prevention through the implementation of internal control systems and whistleblowing has a significant effect on fraud prevention through the implementation of internal control systems. The findings of this study are expected to help stakeholders in efforts to prevent fraud in the banking sector.

Keyword: Organizational Culture, Role of Internal Auditor, Whistleblowing, Internal Control System, Fraud Prevention

1. Introduction

Rural Credit Bank (BPR) is a financial institution that is legally based according to Law No. 10/1998 to collect funds from the public in the form of savings in the form of time deposits, savings and providing credit. Since the beginning of the millennium, BPR has experienced very rapid development in terms of income, number, customers and banking exposure (Mokhtar et al, 2012). However, in recent years according to Sjah et al (2021) quoted from the OJK report, there have been criminal practices carried out by BPR employees and leaders and as a consequence many BPRs have had to be closed (Legowo et al., 2023; Renzaho, 2017). Enofe et al (2017) revealed that fraud, errors, and abuse of power are some of the factors often found in the banking industry. Furthermore, Kotagiri & Yada (2024) need an integrated approach in identifying fraud patterns that may be carried out by banking officials in anticipating and reducing emerging threats proactively. Therefore, this study aims to determine the preventive measures for fraud that may occur in the banking sector. Several previous literatures have explained that fraud committed by banking individuals is greatly influenced by the system and securities (Kyrchenko et al., 2021; Renzaho, 2017), the behavior of individuals (Avortri & Agbanyo, 2020; Mandal 2023), poor management performance (Vanasco, 1998) and fictitious reports (Reurink, 2018). Hoffmann & Birnbrich (2012) also explained that fraudulent activities by banks are motivated by the reasons for manipulating bank performance reports to be positive. To find out

more about the fraudulent efforts that are often carried out in banking, we propose the variables of organizational culture, internal auditors and whistleblowing. Several previous studies have linked the influence of internal and external parties in the organization to efforts to prevent fraud in the banking sector. For example: Cohn et al (2014) revealed that the prevailing business culture in the banking industry weakens and damages honesty norms, implying that steps to rebuild an honest culture in the organization are very important. Vousinas (2016) explained that internal audit plays a major role in risk assurance and bank fraud management in a constantly changing and high-risk banking business environment. Shonhadji & Maulidi (2021) explained that fraud prevention efforts can be carried out through awareness, good faith and reasonable reasons. It is important to investigate the influence of organizational culture in creating an environment that does not support fraudulent practices (Ocansey & Ganu, 2017; Omar et al., 2015) and how effective the internal audit function is in detecting and preventing fraudulent practices (Bonrath & Eulerich, 2021; Drogalas et al., 2017). In addition, a clean and safe reporting system through whistleblowers is expected to be an important tool in revealing fraud practices (Albrecht et al., 2018; Zhang et al., 2013).

Other studies also reveal the important role of efforts to prevent fraud through internal control, Joseph et al (2015) revealed that when the action control system is well regulated by the company, efforts to prevent and detect fraud can be avoided. Furthermore, Yuniarti & Ariandi (2017) explain that fraud can be prevented by building good internal control and increasing antifraud awareness to all parties in the organization. We propose internal control as an intervening variable in this study because internal control can ensure that existing operational procedures in banking run well (Lentner et al., 2019). In addition, effective internal control is expected to be a tool for evaluation and mitigation of possible fraud committed by banking individuals (Asiligwa & Rennox, 2017).

This study is expected to help identify potential risks and effective preventive measures because fraud can damage a bank's reputation and reduce public trust. Investigating how research variables can contribute to compliance and sanction avoidance can help management implement a more comprehensive strategy in carrying out banking practices and management.

2. The Art of Research

1. The Influence of Organizational Culture on Fraud Prevention

The banking sector is a critical component of the global economy, and its integrity is critical to maintaining public trust and ensuring financial stability (Marcel, 2021). However, the industry has been plagued by numerous fraud cases (Legowo et al., 2023), with significant implications for individual institutions and the broader economic system (Hendriyetty & Grewal, 2017). The impact of these fraudulent activities is not limited to the perpetrators but often extends to customers, shareholders, and the wider community (Mangala & Soni, 2023). Several studies have stated that complex values or rules from various factors that develop in the organizational environment are identified as one of the key factors in shaping these fraudulent practices (Avortri et al., 2020; Cohn et al., 2014). In addition, according to Srivastava (2022) explains that fraudulent practices can occur in organizational cultures that lack transparency. Therefore, we hypothesize the following:

H1: A good organizational culture will encourage fraud prevention practices

2. The Influence of the Role of Internal Auditors on Fraud Prevention

Banks as crucial components in the financial system are highly vulnerable to various forms of fraud due to the large flow of funds and the complexity of their operations (Arimaminpathy et al., 2012; Reurink, 2018). Internal auditors play a crucial role in mitigating these risks by implementing strong internal management and fraud prevention measures (Vousinas, 2016). The importance of internal auditors in fraud prevention has been well documented (Omonyemen et al., 2017; Petraşcu & Tieanu, 2014; Salameh et al., 2011). Effective internal audit practices can provide important assurance to the bank's board of directors and senior



management regarding the quality of the institution's internal control system (Ayagre et al., 2014; Oussii & Bouliila Taktak, 2018). By examining the role of internal auditors in fraud efforts by banking management, it is expected to help reduce the risk of losses and damage to the bank's reputation. Therefore, this study hypothesizes as follows:

H2: Internal auditors play an important role in fraud prevention efforts

3. The Influence of Whistleblowing on Fraud Prevention

Whistleblowing has been recognized as an effective way to prevent and stop unethical practices in organizations (Brough et al., 2022; Nurhidayat & Kusumasari, 2018), including in the banking sector (Maulida & Bayunitri, 2021) because the whistleblowing system is a mechanism for submitting complaints about alleged corruption that has occurred or will occur involving employees and others in the organizational environment (Albrecht et al., 2018). Furthermore, Shonhadji & Maulidi (2021) explain the role of whistleblowing as an important component in preventing fraudulent practices in the banking sector in addition to audits and internal controls. Priyadi et al (2022) revealed that the implementation of a whistleblowing system has a positive impact on fraud prevention efforts, which in turn will help reduce fraudulent activities by employees (Ayagre et al., 2014). It is important to comprehensively investigate whistleblowing efforts in preventing fraud in the banking sector, therefore this study hypothesizes the following:

H3: Whistleblowing efforts will encourage fraud prevention actions

4. The Influence of Internal Control Systems on Fraud Prevention

Studies on the influence of internal control systems on fraud prevention efforts in the banking sector are well recorded (Alfian et al., 2017; Owusu-Boateng et al., 2017; Sudirman et al., 2021). This system is designed to ensure the accuracy, completeness, and reliability of financial data (Rashedi & Dargahi, 2019), furthermore according to Bishop (2004) that the internal control system is an effort that can be made by management to prevent and detect fraudulent activities. Research shows that effective internal control can reduce the likelihood of fraud committed by banking personnel (Alfian et al., 2017). By activating this control, organizations can protect against personnel weaknesses and reduce business risks associated with fraudulent activities (Sudirman et al., 2021). Suh & Han (2003) stated that the function of the internal control system is not only as a supervisory tool, but also as a foundation for creating a safe and trusted banking environment. It is necessary to know that management efforts through the internal control system can prevent fraud in the banking sector. Therefore, this study hypothesizes as follows:

H4: Internal Control System is able to encourage fraud prevention

5. The Influence of Organizational Culture on Fraud Prevention through the Implementation of Internal Control Systems

Organizational culture plays an important role in fraud prevention, as evidenced by previous studies (Avortri et al., 2020; Cohn et al., 2014), Research shows that a well-developed organizational culture can enhance fundamental values such as honesty and integrity (Bussmann & Niemeczek, 2019), which are very important for individuals to have in an effective fraud prevention effort (Sudharma, 2023). Good management and financial governance carried out by banking management can help prevent fraud attempts (Ayorinde et al., 2013) and these actions will be even better if supported by a positive organizational culture (Bhasin, 2016). The internal control system not only functions as a supervisory tool (Suh & Han, 2003), but can also be a bridge connecting cultural values with operational practices (Metabis & Al-Hawary, 2013). When the internal control function can be implemented properly, it can create a safer and more ethical environment in the banking sector and significantly reduce the risk of fraud (Sudirman et al., 2021). We assume that fostering a strong organizational culture is one of the important points that must be had in the banking sector

supported by the effectiveness of internal control, then fraudulent practices can be prevented. Therefore, this study hypothesizes as follows:

H5: The internal control system is able to mediate the relationship between organizational culture and fraud prevention efforts

6. The Influence of Internal Auditors on Fraud Prevention through the Implementation of Internal Control Systems

The internal control system plays an important role in the relationship between internal auditors and fraud prevention in the banking sector (Ayagre et al., 2014). Effective internal control will increase the effectiveness of internal audits, thereby increasing fraud detection and prevention (Vousinas, 2016). Internal auditors function to assist management in preventing, detecting and investigating fraud that occurs in an organization (Petrașcu & Tieanu, 2014). Meanwhile, the internal control system functions to provide adequate assurance that the institution will achieve its goals, including fraud prevention, risk mitigation, and gaining the trust of customers and shareholders (Oussii & Boulila, 2018). According to Nadirsyah et al (2024) that the implementation of internal audits and internal controls makes a significant contribution to fraud prevention efforts, by combining these two elements together to reduce fraudulent activities among employees in banking institutions will certainly have very significant benefits for banking growth (Handoyo & Bayunitri, 2021). Thus, strengthening the internal control system can strengthen the impact of internal auditors in reducing the risk of fraud. Therefore, we hypothesize as follows:

H6: The internal control system is able to mediate the relationship between Internal Auditors and Fraud Prevention

7. The Influence of Whistleblowing on Fraud Prevention through the Implementation of Internal Control Systems

The whistleblowing system serves as an important component of the internal control system, which enhances fraud prevention efforts in organizations, including the banking sector (Maulida & Bayunitri, 2021). Lee, G., & Fargher (2013) stated that the whistleblowing system is a means of communication for internal parties to report acts or events related to fraud, violations of laws, company regulations, codes of ethics and conflicts of interest committed by perpetrators within the company. This system encourages transparency and encourages employee participation in reporting fraudulent activities (Albrecht et al., 2018). The effectiveness of the whistleblowing system can lead to increased forensic audits, which further strengthens fraud detection and prevention (Mamahit & Urumsah, 2018). By mediating the relationship between whistleblowing and fraud prevention, the internal control system effectively reduces deviations and strengthens good governance practices. Therefore, this study hypothesizes the following:

H7: The internal control system is able to mediate the relationship between whistleblowing and fraud prevention

3. Method

The Regional Company of People's Credit Bank (BPR) of Kediri City was chosen as the research location because one year ago it experienced a bad credit case with an estimated loss value of 1 billion. We used a causative research approach to analyze the latent influence between one variable and another (Henseler & Chin, 2010). This study aims to see how far exogenous variables are able to influence endogenous variables. In this case, to see how much influence organizational culture, the role of internal auditors and whistleblowing have on fraud prevention through the implementation of an internal control system. The type of data used in this study is subject data from the entire research population where we used 38 research samples which are the total number of employees in the BPR office. To obtain the data, we used a survey method through a questionnaire that we distributed directly to research respondents. We adopted a research panel based on



previous literature and compiled it based on the expertise of the research. The data is in the form of responses to questions or questionnaires from research subjects, namely the director, internal auditor and accounting staff of the People's Credit Bank in Kediri City. The survey was distributed in the form of a list of statements according to the research construction variables, namely organizational culture, the role of internal auditors and whistleblowing towards fraud prevention with the implementation of an internal control system as the intervening variable. We conducted multiple regression as an analysis tool in this study.

4. Result

A. Validity Test

Validity test in this study uses product moment correlation for each survey question item. In this test, the corrected item-total correlation value > product moment value. The product moment value (n = 49) with a significance value of 5% is 0.281. The results shown in table 1 for the test found that the majority of items in the survey questions met the validity requirements, but for the organizational culture item, question point seven was found below the validity provisions which would be deleted and not continued for further analysis.

Table 1. Validity Test Results

Variable	Item	R Count	Variable	Item	R Count
Organizational culture(X1)	X1.1	0,511	Auditor Internal (X2)	X2.1	0,515
	X1.2	0,589		X2.2	0,558
	X1.3	0,326		X2.3	0,607
	X1.4	0,397		X2.4	0,418
	X1.5	0,611		X3.1	0,646
	X1.6	0,368		X3.2	0,554
	X1.7	0,279	X3.3	0,594	
	X1.8	0,325	X3.4	0,719	
	X1.9	0,389	X3.5	0,690	
	X1.10	0,370	X3.6	0,511	
	X1.11	0,603	Whistleblowing (X3)	X3.7	0,627
	X1.12	0,637		X3.8	0,604
	X1.13	0,619		X3.9	0,501
	X1.14	0,552		X3.10	0,568
Z1.1	0,659	X3.11		0,625	
Internal Control(Z1)	Z1.2	0,541	X3.12	0,715	
	Z1.3	0,610	Fraud Prevention (Y)	Y1.1	0,651
	Z1.4	0,491		Y1.2	0,722
	Z1.5	0,638		Y1.3	0,619
	Z1.6	0,722		Y1.4	0,719
	Z1.7	0,671		Y1.5	0,762
	Z1.8	0,625		Y1.6	0,594
	Z1.9	0,656		Y1.7	0,747
	Z1.10	0,695		Y1.8	0,774
	Z1.11	0,679			
	Z1.12	0,683			
	Z1.13	0,623			
	Z1.14	0,626			
Z1.15	0,615				
Z1.16	0,635				
Z1.17	0,653				

B. Reliability Test

The split-half reliability test method was carried out in this study by dividing the two instrument questions for each variable and connecting them using the Spearman Brown correlation formula. The reliability requirements are met if the Guttman Spilt-Half Coefficient correlation value is ≥ 0.60 (Rafiei et al., 2014) and the results shown in Table 2 show the results of the Guttman Spilt-Half Coefficient test for each construction variable has a value of >0.60 and is declared reliable.

Table 2. Guttman Spilt-Half Coefficient Test

Construction Variables	Guttman Value Spilt-Half Coefficient
Organizational culture(X1)	0.747
Audit Internal (X2)	0.775
Whistleblowing (X3)	0.835
Internal Control(Z1)	0.929
Fraud Prevention (Y1)	0.924

C. Classical Assumption Test

1. Heteroscedasticity Test

The heteroscedasticity test in this study was conducted by looking at the scatterplot graph, where according to Riggs & Lalonde (2017), the research construction stated that there was no heteroscedasticity if the scatterplot image did not have a clear pattern (wavy, widening then narrowing) and the points were evenly spread (above and below the number 0 on the Y axis). Based on Figure 1, it can be concluded that the research construction did not show symptoms of heteroscedasticity.

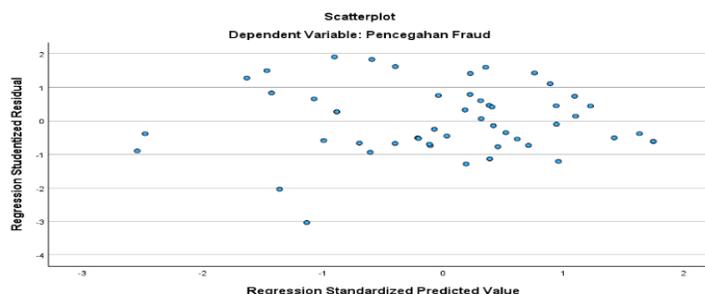


Figure 1. Scatterplot Graph of Research Construction

Further proof is done by conducting the Glejser test, where according to the Ilori & Tanimowo (2022) the significance value between the independent variable and the absolute residual is > 0.05 . The results shown in table 3 show that the absolute value of the constant residual is $0.06 > 0.05$ and passes the heteroscedasticity test.

Table 3. Glejser Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.227	1.828		2.859	.006
Organizational culture(X1)	-.039	.048	-.187	-.817	.418
Auditor Internal (X2)	.040	.128	.068	.311	.757
Whistleblowing (X3)	-.035	.045	-.191	-.779	.440
Internal Control (Z)	-.003	.043	-.023	-.077	.939

a. Dependent Variable: Fraud Prevention



2. Multicollinearity Test

The multicollinearity test in this study aims to determine whether there is a high or perfect correlation between the independent variables in the regression model, according to the (Dormann et al., 2013) that the multicollinearity test can be done by calculating the variance inflation factor (VIF) value <5 and tolerance > 0.1 Table 4 shows the results of the multicollinearity test, the value of the VIF value and tolerance value have values greater than the provisions and pass the multicollinearity test.

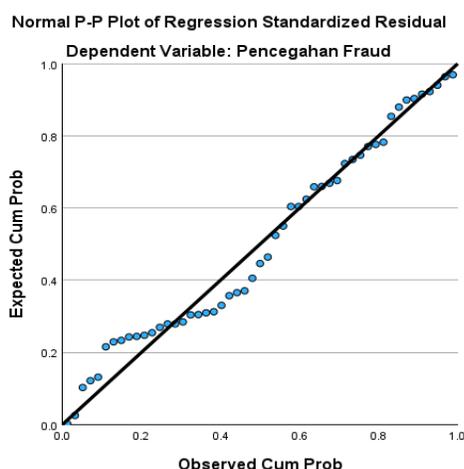
Table 4. Results of Correlation Tests Between Variables

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-7.018	3.330		-2.107	.041		
	Organizational culture	.256	.088	.315	2.908	.006	.372	2.686
	Auditor Internal	.233	.232	.105	1.003	.321	.403	2.484
	Whistleblowing	.165	.082	.233	2.019	.049	.327	3.059
	Internal Control	.185	.079	.336	2.336	.024	.212	4.727

a. Dependent Variable: Fraud Prevention (Y)

3. Normality Test

The regression model is said to be normally distributed if the plotting data (dots) that describe the actual data follow the diagonal line (Schmidt & Finan, 2018). The results shown in Figure 2 for the p-plot value follow the horizontal line and the regression model is normally distributed.



Gambar 2. Normal P-P Plot of Regression Standardizer Residual Dependent Variable

D. Hypothesis Testing

1. Partial Test

Partial test in this study is used to test the level of significance of the influence of independent variables simultaneously on the dependent variable, the t test is carried out by comparing the t count and t table. The t count value can be seen from the results of processing the Coefficients data (Nikmah & Armaniah, 2021). The results of the study (see table 5) show a significant relationship between the Organizational culture (X1) variable and Y1 ($\beta = 0.256$, $t = 2.908$, $\rho < 0.006$) and support the hypothesis. Internal auditors (X2) are not significant to Y1 ($\beta = 0.233$, $t = 1.003$, $\rho < 0.321$) and support the rejection of the hypothesis. Whistleblowing

(X3) is significant to Y1 ($\beta = 0.165$, $t = 2.019$, $\rho < 0.049$). Finally, Internal Control (X3) is significant towards Y1 ($\beta = 0.185$, $t = 2.336$, $\rho < 0.024$).

Table 5. Partial Analysis Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-7.018	3.330		-2.107	.041
Organizational culture(X1)	.256	.088	.315	2.908	.006
Auditor Internal (X2)	.233	.232	.105	1.003	.321
Whistleblowing (X3)	.165	.082	.233	2.019	.049
Internal Control (Z)	.185	.079	.336	2.336	.024

a. Dependent Variable: Fraud Prevention (Y)

2. Intervening effect test

The determination coefficient analysis is used to determine the percentage of the contribution of the influence of independent variables (X1, X2, X3 and Z) simultaneously to the dependent variable (Y). Based on the results of the determination coefficient test (see table 6) it shows that organizational culture, internal auditors and Whistleblowing through the Internal Control system simultaneously influence Fraud Prevention or in other words the hypothesis (H5, H6 and H7) is accepted.

Table 6. Results of Calculation of Determination Coefficient Value

Result R-square – Summary					
	R-square			Adjusted R-square	
X1 → z	0,662			0,655	
X2 → z	0,544			0,534	
X3 → z	0,551			0,542	
	Original sample (0)	Sample AVE (M)	Standard Deviation (STDEV)	T statistic (I0/STDEVI)	P -values
Y→Z→X1	0,813	0,816	0,056	14.595	0,000
Y→Z→X2	0,737	0,732	0,063	11,649	0,000
Y→Z→X3	0,742	0,747	0,070	10.598	0,000

5. Discussion

The results of the first study showed that the organizational culture variable had a significant level of $0.006 < 0.05$ and a t-value of $2.908 > t$ table 2.013. These results indicate that organizational culture has an influence on fraud prevention or in other words the hypothesis (H1) is accepted. To prevent fraud, it is inseparable from the role of organizational culture. Organizational culture is closely related to the problem of fraud prevention in banking. In line with the opinion of Avortri et al., (2020) that the values or rules that develop in the organizational environment are key factors in shaping fraud prevention practices. In this study, when the organizational culture applied in the extension office is good, fraudulent actions can be minimized. Second, the role of internal auditors has a significant level of $0.321 > 0.05$ and a t-value of $1.003 < t$ table 2.013. The results indicate that the role of internal auditors has no influence on fraud prevention or in other words the hypothesis (H2I) is rejected and supports the findings of Ayagre et al., (2014) that internal audit practices carried out by the board of directors and senior management of the bank play a role in maintaining the integrity of the bank from fraudulent practices. In the context of this study, the presence of internal auditors does not have much influence on efforts to prevent fraud committed by office employees. Third,



whistleblowing has a significant level of $0.049 < 0.05$ and a t-value of $2.019 > t$ table 2.013 and these results indicate that whistleblowing has an influence on fraud prevention. This finding is in line with the report of Shonhadji & Maulidi (2021) explaining the role of whistleblowing as an important component in preventing fraudulent practices in the banking sector. It is important for the management of BPR Kota Kediri banking to use the method of storing complaints in following up and preventing fraud attempts that may be carried out by unscrupulous banking employees. Fourth, the internal control system variable has a significant level of $0.024 < 0.05$ and a calculated t value of $2.336 > t$ table 2.013 and these results indicate that the internal control system has an influence on fraud prevention. The report submitted by Suh & Han (2003) which states the function of the control system as a supervisory tool and the initial foundation for creating a safe and trusted banking environment.

Furthermore, the influence of intervening Organizational culture through the Internal Control system simultaneously affects Fraud Prevention. The results of the study indicate that the occurrence of fraud in the banking sector is closely related to the role of Organizational culture because a good work environment can encourage Fraud Prevention in banking practices. Another finding on the role of internal auditors influences Fraud Prevention through the implementation of the Internal Control system and this shows that efforts to prevent fraud cannot be separated from the role of internal auditors. the role of internal auditors is closely related to the problem of Fraud Prevention in banking. Finally, the discovery of whistleblowing influences Fraud Prevention through the implementation of the Internal Control system or in other words the practice of banking fraud is closely related to whistleblowing and the problem of Fraud Prevention.

The practical implications of this study include: First, Banking management must be able to maintain The practical implications of fraud prevention in the banking sector include a series of integrated actions that are continuously integrated. When banks are able to maintain their integrity from fraudulent practices, they will directly be able to build a good image, maintain, and increase customer trust. Second, Banking management needs to build a comfortable and transparent communication channel to support reports or suspicious activities. Third, Banking leaders need to make preventive efforts against banking fraud prevention, holding training on fraud prevention, ethics, and internal control for all employees can encourage positive actions in the banking environment.

There are several limitations to this study, for example: First, we used a sample in one organizational scope, so the possibility of generalizing to other organizational contexts cannot be done. Second: Each organization has unique policies, procedures, and cultures, so that findings that are relevant in one context may not apply elsewhere. Third: This study uses a limited sample and comes from one organizational scope so that this study may affect the validity and relevance of the research findings.

6. Conclusion

Fraud prevention efforts that occur in the banking environment are influenced by many factors including organizational culture, internal auditors, whistleblowing and internal control systems. It is important for banking management to understand these factors to help banks and financial institutions develop more effective strategies in preventing and detecting fraud. By understanding the factors that contribute to fraud, management can identify and mitigate existing risks, protect bank assets and customers.

Acknowledgments

Write the acknowledgment here if any

References

1. Albrecht, C. O., Holland, D. V., Skousen, B. R., & Skousen, C. J. (2018). The significance of whistleblowing as an anti-fraud measure. *Journal of Forensic & Investigative Accounting*, 10(1), 1-13.
2. Alfian, N., Tarjo, T., & Haryadi, B. (2017). The effect of anti fraud strategy on fraud prevention in banking industry. *Asia Pacific Fraud Journal*, 2(1), 61-72.
3. Arinaminpathy, N., Kapadia, S., & May, R. M. (2012). Size and complexity in model financial systems. *Proceedings of the National Academy of Sciences*, 109(45), 18338-18343.
4. Asiligwa, M., & Rennox, G. (2017). The Effect of internal controls on the financial performance of commercial banks in Kenya. *Journal of Economics and Finance*, 8(3), 92-105.
5. Avortri, C., & Agbanyo, R. (2020). Determinants of management fraud in the banking sector of Ghana: the perspective of the diamond fraud theory. *Journal of Financial Crime*, 28(1), 142-155.
6. Ayagre, P., Appiah-Gyamerah, I., & Nartey, J. (2014). The effectiveness of Internal Control Systems of banks. The case of Ghanaian banks. *International journal of Accounting and Financial reporting*, 4(2), 377.
7. Ayorinde, A. O., Toyin, A., & Leye, A. (2013). Evaluating internal control system as preventive measure of fraud in the Nigerian banking sector. *Int. J. Manag. Sci. Bus. Res*, 2(9), 15-22.
8. Bhasin, M. L. (2016). The fight against bank frauds: Current scenario and future challenges. *Ciencia e Tecnica Vitivinicola Journal*, 31(2), 56-85.
9. Bishop, T. J. (2004). Preventing, deterring, and detecting fraud: What works and what doesn't. *Journal of investment compliance*, 5(2), 120-127.
10. Bonrath, A., & Eulerich, M. (2021). Internal auditing's role in preventing and detecting fraud: An empirical analysis. *International Journal of Auditing*. 28 (4). 615 – 631.
11. Brough, P., Lawrence, S. A., Tshuridu, E., & Brown, A. J. (2022). The effective management of whistleblowing: The whistleblowing response model. In *Handbook on Management and Employment Practices* (pp. 437-458). Cham: Springer International Publishing.
12. Bussmann, K. D., & Niemeczek, A. (2019). Compliance through company culture and values: An international study based on the example of corruption prevention. *Journal of Business Ethics*, 157(3), 797-811.
13. Cohn, A., Fehr, E., & Maréchal, M. A. (2014). Business culture and dishonesty in the banking industry. *Nature*, 516(7529), 86-89.
14. Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., ... & Lautenbach, S. (2013). Collinearity: a review of methods to deal with it and a simulation study evaluating their performance. *Ecography*, 36(1), 27-46.
15. Drogalas, G., Pazarskis, M., Anagnostopoulou, E., & Papachristou, A. (2017). The effect of internal audit effectiveness, auditor responsibility and training in fraud detection. *Accounting and Management Information Systems*, 16(4), 434-454.
16. Enofe, A. O., Abilogun, T. O., Omolorun, A. J., & Elaiho, E. M. (2017). Bank fraud and preventive measures in Nigeria: An empirical review. *International Journal of Academic Research in Business and Social Sciences*, 7(7), 40-51.
17. Handoyo, B. R. M., & Bayunitri, B. I. (2021). The influence of internal audit and internal control toward fraud prevention. *International Journal of Financial, Accounting, and Management*, 3(1), 45-64.
18. Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural equation modeling*, 17(1), 82-109.



19. Hendriyetty, N., & Grewal, B. S. (2017). Macroeconomics of money laundering: effects and measurements. *Journal of Financial Crime*, 24(1), 65-81.
20. Hoffmann, A. O., & Birnbrich, C. (2012). The impact of fraud prevention on bank-customer relationships: An empirical investigation in retail banking. *International journal of bank marketing*, 30(5), 390-407.
21. Ilori, O. O., & Tanimowo, F. O. (2022). Heteroscedasticity detection in cross-sectional diabetes pedigree function: a comparison of breusch-pagan-godfrey, harvey and glejser tests. *Int. J. Sci. Manag. Res*, 5, 150-163.
22. Joseph, O. N., Albert, O., & Byaruhanga, J. (2015). Effect of internal control on fraud detection and prevention in district treasuries of Kakamega County. *International Journal of Business and management invention*, 4(1), 47-57.
23. Kotagiri, A., & Yada, A. (2024). Improving Fraud Detection in Banking Systems: RPA and Advanced Analytics Strategies. *International Journal of Machine Learning for Sustainable Development*, 6(1), 1-20.
24. Kyrychenko, V., Soldatenko, O. A., Gorokhovska, O. V., Voloshyna, M. O., & Maksymova, L. O. (2021). Fraud in the banking system of Ukraine: ways to combat taking into account foreign experience. *Amazonia Investiga*, 10(45), 208-220.
25. Lee, G., & Fargher, N. (2013). Companies' use of whistle-blowing to detect fraud: An examination of corporate whistle-blowing policies. *Journal of business ethics*, 114, 283-295.
26. Legowo, B. P. D. A., Mashdurohatun, A., & Sulistyono, (2023). A Reconstruction of Law Enforcement in Efforts to Overcome Banking Crime Based on Pancasila Value of Justice. *South East Asia Journal of Contemporary Business, Economics and Law*, Vol. 28, Issue 3. 69 – 77.
27. Lentner, C., Vasa, L., & Zéman, Z. (2019). New dimensions of internal controls in banking after the GFC. *Economic Annals-XXI/Ekonomičnij Časopis-XXI*, 176.
28. Mamahit, A. I., & Urumsah, D. (2018). The comprehensive model of whistle-blowing, forensic audit, audit investigation, and fraud detection. *Journal of Accounting and Strategic Finance*, 1(2), 153-162.
29. Mandal, A. (2023). Fathoming fraud: unveiling theories, investigating pathways and combating fraud. *Journal of Financial Crime*. <https://doi.org/10.1108/JFC-06-2023-0153>.
30. Mangala, D., & Soni, L. (2023). A systematic literature review on frauds in banking sector. *Journal of Financial Crime*, 30(1), 285-301.
31. Marcel, M. (2021). Public trust and central banking. Independence, credibility and communication of central banking, 15-26.
32. Maulida, W. Y., & Bayunitri, B. I. (2021). The influence of whistleblowing system toward fraud prevention. *International Journal of Financial, Accounting, and Management*, 2(4), 275-294.
33. Metabis, A., & Al-Hawary, S. I. S. (2013). The impact of internal marketing practices on services quality of commercial banks in Jordan. *International Journal of Services and Operations Management*, 15(3), 313-337..
34. Nikmah, W., & Armaniah, H. (2021). The effect of service quality and satisfaction on customer loyalty at Kumon East Jakarta. *Journal of Economics and Business Letters*, 1(3), 44-50.
35. Mokhtar, S. H., Nartea, G., & Gan, C. (2012). The Malaysian microfinance system and a comparison with the Grameen Bank (Bangladesh) and Bank Perkreditan Rakyat (BPR-Indonesia). *Journal of Arts and Humanities*, 1(3), 60-71.
36. Mwabu, D. K. (2013). Factors influencing electronic fraud in the banking industry in Kenya: a case of Kenya commercial bank central region (Doctoral dissertation, University of Nairobi).

37. Nadirsyah, Indriani, M., & Mulyany, R. (2024). Enhancing fraud prevention and internal control: the key role of internal audit in public sector governance. *Cogent Business & Management*, 11(1), 2382389.
38. Nurhidayat, I., & Kusumasari, B. (2018). Strengthening the effectiveness of whistleblowing system: A study for the implementation of anti-corruption policy in Indonesia. *Journal of Financial Crime*, 25(1), 140-154.
39. Ocansey, E. O. N. D., & Ganu, J. (2017). The role of corporate culture in managing occupational fraud. *Research Journal of Finance and Accounting*, 8(24).
40. Omar, N., Johari, Z. A., & Hasnan, S. (2015). Corporate culture and the occurrence of financial statement fraud: A review of literature. *Procedia Economics and Finance*, 31, 367-372.
41. Omonyemen, I. S., Josiah, M., & Godwin, O. O. (2017). Internal control as the basis for prevention, detection and eradication of frauds in banks in Nigeria. *International Journal of Economics, Commerce and Management*, 5(9), 61-88.
42. Oussii, A. A., & Boulila Taktak, N. (2018). The impact of internal audit function characteristics on internal control quality. *Managerial Auditing Journal*, 33(5), 450-469.
43. Owusu-Boateng, W., Amofa, R., & Owusu, I. (2017). The internal control systems of GN Bank-Ghana. *British Journal of Economics, Management & Trade*, 17(1), 1-17.
44. Petraşcu, D., & Tieanu, A. (2014). The role of internal audit in fraud prevention and detection. *Procedia Economics and Finance*, 16, 489-497.
45. Priyadi, A., Hanifah, I. A., & Muchlish, M. (2022). The effect of whistleblowing system toward fraud detection with forensic audit and investigative audit as mediating variable. *Devotion: Journal of Research and Community Service*, 3(4), 336-346.
46. Rafiei, M., Amini, M., & Foroozandeh, N. (2014). Studying the impact of the organizational commitment on the job performance. *Management science letters*, 4(8), 1841-1848.
47. Rashedi, H., & Dargahi, T. (2019). How influence the accounting information systems quality of internal control on financial reporting quality. *JMDMA*, 2(5), 33-45.
48. Renzaho, J. D. (2017). Retrenchment in Rwanda commercial banks analysis of BPR-I & M: Study period: 2011-2016 (Doctoral dissertation, University of Rwanda.). <http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/60487>
49. Reurink, A. (2018). Financial fraud: A literature review. *Journal of Economic Surveys*, 32(5), 1292-1325.
50. Riggs, J. D., & Lalonde, T. L. (2017). *Handbook for applied modeling: non-Gaussian and correlated data*. Cambridge University Press.
51. Salameh, R., Al-Weshah, G., Al-Nsour, M., & Al-Hiyari, A. (2011). Alternative Internal Audit Structures and Perceived Effectiveness of Internal Audit in Fraud Prevention: Evidence from Jordanian Banking Industry/Les Structures Alternative D'audit Interne Et L'efficacite Percue De L'audit Interne Dans La Prevention Contre La Fraude: Une Preuve Dans L'industrie Bancaire Jordanienne. *Canadian Social Science*, 7(3), 40.
52. Schmidt, A. F., & Finan, C. (2018). Linear regression and the normality assumption. *Journal of clinical epidemiology*, 98, 146-151.
53. Shonhadji, N., & Maulidi, A. (2021). The roles of whistleblowing system and fraud awareness as financial statement fraud deterrent. *International Journal of Ethics and Systems*, 37(3), 370-389.
54. Sjah, A. J. F., Tunga, A. F., & Sudiarta, W. (2021). Implementation of Sanctions by Bank Indonesia on Banking Crimes (Case Study of Pt. Bpr Nusantara Abadi Mulia Kupang). *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)*. Volume 04 - Issue 10. 14 – 23.



55. Srivastava, D. A. (2022). Strengthening Compliance Through Leadership, Ethics, Transparency, and Cultural Capital. *The IUP Journal of Bank Management*, 21(4).
56. Sudharma, F. Z. (2023). The Effect of Organizational Culture, the Role of Internal Auditor and Auditor Integrity on Fraud Prevention. *International Journal of Business and Applied Economics*, 2(5), 831-850.
57. Sudirman, S., Sasmita, H., Krisnanto, B., & Muchsidin, F. F. (2021). Effectiveness of Internal Audit in Supporting Internal Control and Prevention of Fraud. *Bongaya Journal of Research in Accounting (BJRA)*, 4(1), 8-15.
58. Suh, B., & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of electronic commerce*, 7(3), 135-161.
59. Vanasco, R. R. (1998). Fraud auditing. *Managerial Auditing Journal*, 13(1), 4-71.
60. Vousinas, G. L. (2016). The critical role of Internal Auditing in addressing bank fraud: A conceptual framework. *Journal of Economics Literature M*, 42, 5.
61. Yuniarti, R. D., & Ariandi, I. (2017). The effect of internal control and anti-fraud awareness on fraud prevention (A survey on inter-governmental organizations). *Journal of Economics, Business, and Accountancy Ventura*, 20(1), 113-124.
62. Zhang, J., Pany, K., & Reckers, P. M. (2013). Under which conditions are whistleblowing "best practices" best?. *Auditing: A Journal of Practice & Theory*, 32(3), 171-181.