

Strengthening Integrity and Fraud Awareness in Preventing Fraud During the Covid-19 Pandemic

✉ Dona Ramadhan

PT. Adira Dinamika Multi Finance, Indonesia

ARTICLE INFORMATION

Article History:

Received September 24, 2021

Revised November 18, 2021

Accepted December 03, 2022

DOI:

[10.21532/apfjournal.v7i2.266](https://doi.org/10.21532/apfjournal.v7i2.266)



This is an open access article under
the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) License

ABSTRACT

The Covid-19 pandemic has impacted almost all socio-economic and business aspects. Changes in interaction patterns and a decrease in income lead to a higher potential for fraud risk. Management needs to take effective ways to mitigate fraud, especially fraud prevention as the most efficient strategy. This paper aims to explore and manage new challenges in terms of fraud risk related to the Fraud Triangle in non-digital financing companies. Using a quantitative approach, this study examines the effect of integrity and fraud awareness on fraud prevention according to the perception of the fraud detection team. 67 samples were collected and processed through PLS regression. The results show that R2 value is 0.592; integrity t-score is 3.315, p-value is 0.001; Fraud Awareness t-score is 2.119, p-value is 0.0341. Thus, integrity and fraud awareness have a positive and significant effect on fraud prevention in non-digital financing companies. However, there are some limitations that need to be investigated further, such as measurements for other fraud prevention strategies, other financial institutions, and other business industries that have been negatively affected by the Covid-19 pandemic.

Keyword: Fraud Triangle, Integrity, Fraud Awareness, Fraud Prevention.

1. INTRODUCTION

The COVID-19 pandemic is a disaster that has hit the whole world. Starting from China at the end of 2019, Covid-19 has increasingly spread to almost all countries in the world. The first case in Indonesia was recorded on March 2, 2020, which has continued to this day.

The COVID-19 pandemic has had a tremendous impact on people's lives, especially in the health and economic fields. The pattern of human interaction has changed because this disease is transmitted through physical contact. Communication that used to be done in person has now changed and relies on

How to Cite:

Ramadhan, D. (2022). Strengthening Integrity and Fraud Awareness in Preventing Fraud During the Covid-19 Pandemic. *Asia Pacific Fraud Journal*, 7(2), 201-211. <http://doi.org/10.21532/apfjournal.v7i2.266>.

✉ Corresponding author :
Email: ramadhanza@gmail.com

Association of Certified Fraud Examiners (ACFE)
Indonesia Chapter
Page. 213-224

electronic channels. All of this ultimately has an impact on the business world. The Covid-19 pandemic has caused 66.09% of companies in Indonesia to experience a decrease in income, so they have to make adjustments by reducing working hours or even reducing employees (BPS, 2020). From the process side, adjustments were made by applying the "Work From Home/WFH" method to reduce the risk of spreading the virus (Pinzaru et al., 2020).

The impact of Covid-19 on business should be watched out for as a new threat, especially in terms of fraud. Economic impacts such as a decrease in income for both companies and individuals make financial institutions have an important role in the process of economic recovery (Marcu, 2021). In this context, financial institutions must make adjustments, especially in the use of digital technology. Currently, financial institutions are faced with cyber risks, such as illegal financial transactions, and non-cyber risks, such as lending and internal fraud (Aldasoro et al., 2021; Ma & McKinnon, 2020; Price Waterhouse Coopers (PWC), 2020).

Financial institutions that have not run fully automated processes have the potential for internal fraud to occur. Moreover, the impact of the Covid-19 pandemic which has resulted in a decrease in income, limited audits in examinations, and the policy of working from home (WFH) has actually increased the potential risk of internal fraud. Therefore, fraud prevention during this pandemic is important for non-digital finance companies.

Fraud prevention is the most efficient stage because fraud has not occurred yet (Yusti et al., 2021). Fraud prevention strategies can be linked to the Fraud Triangle theory. Internal fraud prevention is very dependent on behavioral factors or the psychology of the implementer, so the integrity aspect is very important (Mohamed & Said, 2017; Sabău et al., 2013). In addition to the integrity dimension, employees also need to have fraud awareness in order to understand how to manage fraud risk (The Institute

of Internal Auditor (IIA), The American Institute of Certified Public Accountants (AICPA), & Association of Certified Fraud Examiners (ACFE), n.d.; Yuniarti, 2017)

This paper aims to discuss how fraud is managed in non-digital finance companies in dealing with the increased internal risk of fraud due to the Covid-19 pandemic. The increased risk of fraud needs to be anticipated by reviewing the fraud prevention mechanisms that have been implemented so far, whether they are still relevant or need adjustments. This study focuses on aspects of integrity and fraud awareness as an effective prevention strategy. The systematics of writing this article is arranged in several parts: introduction, literature review, methodology, results and discussion, and conclusions and suggestions.

2. LITERATURE REVIEW AND HYPOTHESIS

Covid-19 Pandemic, Non-Digital Finance Companies, and the Fraud Triangle

The Covid-19 pandemic has had an impact on the socio-economic aspects of society. The pandemic condition requires people to make adjustments in interaction and communication, such as reducing physical contact and communicating online. From the economic aspect, there has been a decline in business income as well as personal income. This change can increase the potential for fraud risk in financial institutions, both fully digitalized financial institutions, such as financial technology (fintech) companies, and non-digitalized financial institutions.

For financial technology (fintech) companies, the biggest fraud risk is cyber risk, such as theft of personal data or financial information in transactions (Ma & McKinnon, 2020). Cyber risk can occur not only in fintech companies, but also in financial institutions that have carried out digital transformation in their business processes. However, non-digital financial institutions must be aware of not only cyber risks, but also internal fraud risks and other frauds.

The finance company's customer segment is the segment of society most affected by Covid-19. Therefore, the government through the Indonesian Financial Services Authority (OJK) has formulated a credit relaxation policy to reduce the economic impact (Otoritas Jasa Keuangan / OJK, 2020). Finance companies must restructure loans for customers with certain criteria in connection with the impact of the pandemic. This condition will certainly reduce installment receipts, which in turn reduces the company's income and employee income.

Changes in interaction patterns and reduced income can trigger internal fraud. This condition can be analyzed using the Fraud Triangle theory which was first proposed by Cressey (1953). This theory states that there are three factors that encourage someone to commit fraud: pressure, opportunity, and rationalization. (Zulfa, Bayagub, & Firdausi, 2018). From a psychological point of view, the descriptions of these three factors are as follows: 1) perceived need/pressure, which consists of getting money, keeping a job, and social motives; 2) perceived opportunity, which allows perpetrators to commit fraud; and 3) rationalization, in which the perpetrator does not feel guilty when committing fraud (Murphy & Dacin, 2011; Ramamoorti, 2008). Changes in work patterns such as working from home, or changes in inspection methods such as remote auditing, increase the perceived opportunity of fraud perpetrators due to reduced control activities (Deloitte, 2015; Ernst & Young LLP, 2020; Price Waterhouse Coopers (PWC) Indonesia, 2020; Ramadhan, 2020). Decreased income due to the socio-economic impact of the Covid-19 pandemic can increase perceptions of pressure and rationalization (Deloitte, 2015; Ernst & Young LLP, 2020; Price Waterhouse Coopers (PWC) Indonesia, 2020).

Fraud Prevention

Fraud is a manipulative deviation aimed at benefiting the perpetrator and harming the

bank, customer, and other parties (Bank Indonesia, 2011). According to ACFE, fraud is an act of deception or mistake that is done intentionally by someone who knows that the mistake can result in some unfavorable benefits to an individual, entity or other party.

Fraud handling strategies include prevention, detection (investigation, reporting, and sanctions), monitoring (evaluation), and follow-up (Otoritas Jasa Keuangan / OJK, 2019). Of the four stages, the prevention stage is the most efficient stage because the fraud incident has not occurred yet (Ghazali et al., 2014; Yusti et al., 2021). Fraud prevention is an activity of the entire organizational structure with the main responsible party at the management level assisted by internal and external auditors (Ibrahim, Rose, & Mohamed, 2015). ACFE formulates procedures to prevent fraud, such as anti-fraud campaigns, tone at the top, and pro-active audit checks (Association of Certified Fraud Examiners, 2015).

Integrity

Integrity has a fairly broad meaning which can be interpreted as consistency. In the context of fraud management, integrity is related to behavior or individual traits sudah as consistent, honest, hardworking, and competent (Badan Pemeriksa Keuangan/BPK-RI, 2017). Integrity is the essence of the organization's anti-fraud program which enables members of the organization to maintain trust, avoid conflicts of interest, and uphold the public interest. Integrity, with all values, behavior, and philosophical foundations, is not only important in terms of fraud management, but also affects the performance of employees (Rahim et al., 2020).

Integrity is the embodiment of the ethical values upheld by the employees of the company. Ethical values determine the actions to be taken, whether right or wrong, and are a crucial aspect in fraud mitigation (Said et al., 2017). Integrity can be a controlling tool for individuals to avoid committing fraud, whether due to

pressure, opportunity, or rationalization (Kassem & Higson, 2012). Therefore, integrity is a fairly important factor in the fraud prevention stage.

Fraud Awareness

Fraud awareness is a fraud prevention strategy (The Institute of Internal Auditor (IIA) et al., n.d.). Fraud awareness is defined as an effort to raise awareness about the importance of fraud prevention for all levels of the Bank’s organization and various parties related to the Bank (Otoritas Jasa Keuangan (OJK), 2019). Fraud awareness includes awareness about the dangers, impacts, and types of fraudulent actions involving all elements of the organization (Yuniarti, 2017). Fraud awareness is shaped through an understanding of fraud, so that all parties in the organization know their role in preventing, detecting, and following up on fraud risks that may occur. The fraud awareness of the first line of defense is effective in preventing fraud, considering the limitations of time, cost, and personnel from the second and third lines (The Institute of Internal Auditor (IIA) et al., n.d.).

3. METHODS

Conceptual Framework

The Covid-19 pandemic that has hit the world since the end of 2019 has resulted in many changes in people’s lives. Changes in interaction patterns by reducing physical

contact between humans have a social and economic impact. Social restrictions that require people to stay at home weaken the economy and ultimately affect businesses. Financial institutions, especially finance companies, are required to restructure customers affected by the Covid-19 pandemic. The restructuring program will of course result in a decrease in the company’s income and the income of its employees.

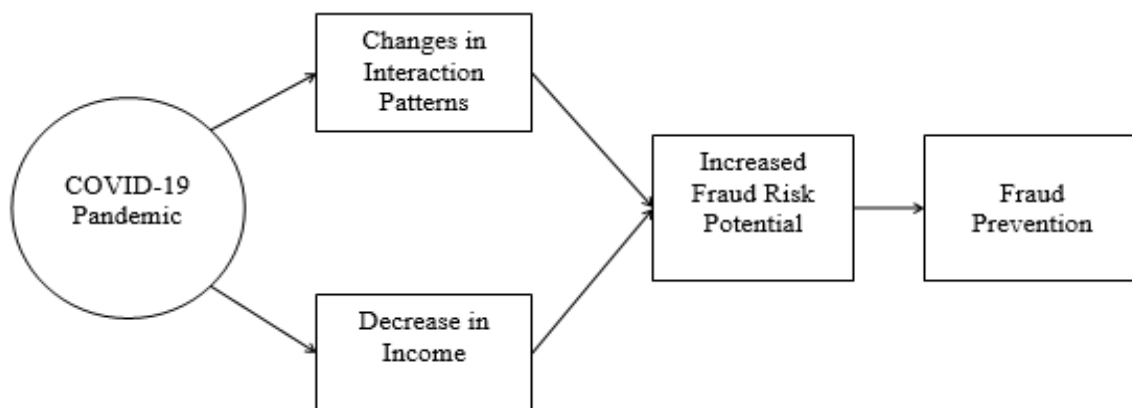
This condition can increase the risk of fraud due to pressure, opportunity, and rationalization factors. Pressure occurs due to declining income. Opportunities occur because of social restrictions so that monitoring activities are not optimal. Rationalization is done with the reason to save jobs and companies. Therefore, it is very important to review the anti-fraud strategy, especially at the prevention stage as the most efficient stage.

The first line (business unit) has a crucial role in the company’s defense against fraud risk. Two strategies that can be taken are increasing integrity and raising fraud awareness. This study aims to review the effect of integrity and fraud awareness on the fraud prevention process, based on the perception of the Fraud Detection Team (Fraud Auditor).

Approach and Method

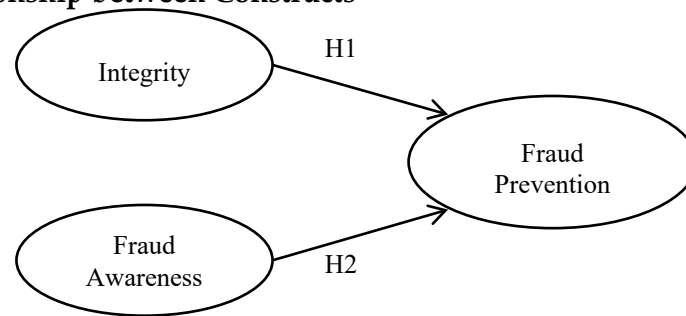
This study uses a quantitative approach to determine the effect of integrity and fraud awareness on fraud prevention.

Figure 1. **Conceptual Framework**



Source: Data Processed

Figure 2. Relationship between Constructs



Source: Data Processed

The method used is a questionnaire by distributing questionnaires to the fraud detection team. The method used to analyze the results of the questionnaire is partial least square (PLS) regression assisted by Smart PLS software. The PLS Regression method is used to measure the latent variable or the so-called construct in the form of perception of the fraud detection team (Garson, 2016).

Constructs and Hypotheses

There are two constructs used in this research, exogenous construct or independent variable and endogenous construct or dependent variable (Hussein, 2015). Fraud prevention is an endogenous construct that is predicted by integrity and fraud awareness as exogenous constructs. The relationship between constructs and the hypotheses used in this study are described in the diagram below:

Fraud prevention is the most crucial stage in fraud risk management. Fraud prevention is the most efficient stage to prevent company losses due to internal fraud. Indicators for measuring fraud prevention constructs are tone at the top, fraud hotline, whistleblowing service, anti-fraud campaign, auditor examination, workspace supervision, and technology/automation processes (Othman, Aris, Mardziyah, Zainan, & Amin, 2015; The Institute of Internal Auditor (IIA) et al., n.d.).

Integrity is individual behavior that maintains ethical values, consistency, honesty, and trustworthiness. Changes in interaction patterns and a decrease in individual and company income can

increase the risk of fraud due to pressure, opportunity, and rationalization. Integrity indicators are promoting honesty, maintaining trust, decreasing conflict of interest, being responsible, implementing the code of ethics, and following the rules (Badan Pemeriksa Keuangan / BPK-RI, 2017; Wulandari & Nuryatno, 2018). The integrity factor of the company's employees will be able to prevent the occurrence of internal fraud (Mohamed & Said, 2017; Said et al., 2017).

H1: Integrity has a positive effect on Fraud Prevention

Fraud awareness is formed from the understanding of all elements of the organization about the dangers of fraud risk, such as the motivation of fraud, types of fraud, and its impact on the company. Adequate and well-internalized fraud awareness, especially in the business unit as the first line of defense, is able to prevent fraud. The indicators used to measure fraud awareness are the person in charge of handling fraud, the impact of fraud, the threat of fraud, anti-fraud campaigns, red flags, and an understanding of the types of fraud that can occur (Othman et al., 2015). Fraud awareness has a positive effect on fraud prevention (Yuniarti, 2017), but the results of research conducted by Wulandari and Nuryatno (2018) conclude that fraud awareness does not have a positive effect on fraud prevention.

H2: Fraud Awareness has a positive effect on Fraud Prevention

4. RESULTS AND DISCUSSION

The research data is collected through a questionnaire with a data format using a Likert scale of 1-5. The respondents are fraud detection teams (fraud auditors) with a total data of 67 respondents. Based on gender, 95.52% of respondents are male and 4.48% are female. Based on the respondent's age, 0 to ≤ 25 years old (8.96%), > 25 to ≤ 30 years old (11.94%), > 30 to ≤ 35 years old (20.90%), > 35 to ≤ 40 years old (40.30%), and > 40 years old (17.91%). Meanwhile, based on the respondent's tenure as a fraud detection team, 0 to ≤ 6 months (7.46%), > 6 months to ≤ 1 year (0.00%), > 1 year to ≤ 2 years (2.99%), > 2 years to ≤ 5 years (19.40%), and > 5 years (70.15%).

Testing the outer model is a test of the relationship between the construct and its indicators with reference to factor loading > 0.70 (Garson, 2016; Hussein, 2015). Of the 20 indicators, 7 indicators have a factor loading value of < 0.70 so they are removed from the construct (Table 3.1 and Figure 3.3). Validity and reliability tests are carried out using composite reliability (CR) values > 0.70 and average variance extracted (AVE) > 0.50. The discriminant validity test is carried out based on the factor loading value > 0.70 and Fornell-Larcknerr (Garson, 2016; Hussein, 2015).

Furthermore, modifications are made by removing indicators < 0.7 and bootstrapping method of 5,000 iterations, factor loading of all indicators > 0.70; CR of all constructs > 0.70; and AVE of all constructs > 0.50. The value of discriminant validity by cross loading shows the highest indicator correlation to the construct. The value of the discriminant validity fornell-larcker criterion indicates that there is conformity to the correlation construct. This analysis shows that the research indicators are valid and reliable to measure the construct.

Table 1. **Factor Loading of Indicator**

Indicator	Early Model	Modification
INT-1	0.909	0.906
INT-2	0.591*	-
INT-3	0.642*	-
INT-4	0.866	0.885
INT-5	0.887	0.914
INT-6	0.870	0.889
FAW-1	0.751	0.791
FAW-2	0.699*	-
FAW-3	0.564*	-
FAW-4	0.734	0.765
FAW-5	0.901	0.921
FAW-6	0.803	0.825
FAW-7	0.564*	-
FPR-1	0.639*	-
FPR-2	0.786	0.845
FPR-3	0.869	0.914
FPR-4	0.854	0.864
FPR-5	0.769	0.771
FPR-6	0.585*	-
FPR-7	0.790	0.766

* The indicator is invalid and removed from the construct

Source : Processed Data

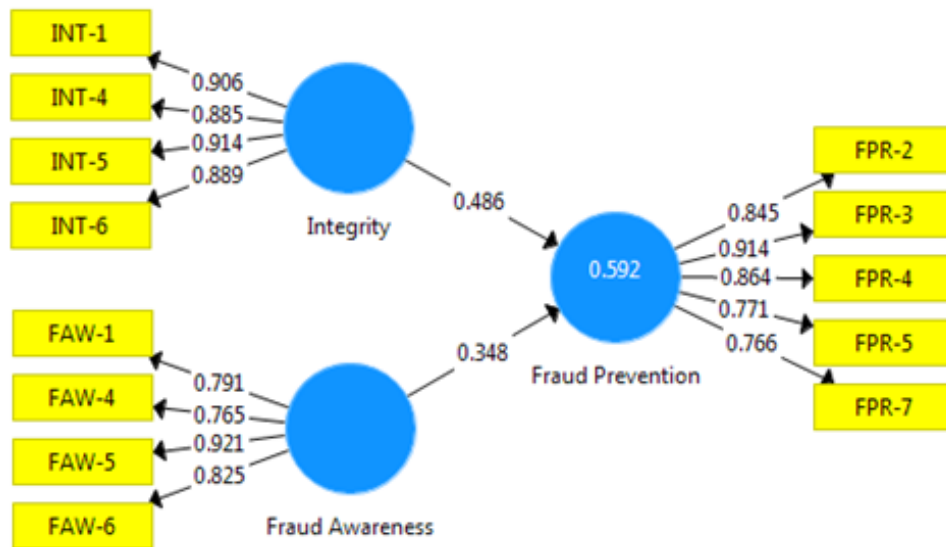
Table 2. **Values of CR and AVE**

Construct	CR	AVE
Integrity	0.944	0.807
Fraud Awareness	0.896	0.685
Fraud Prevention	0.919	0.695

Source : Processed Data

The results of the inner model analysis on the relationship between constructs show that the coefficient of determination (R^2) value is 0.592, the relevant predictive (Q^2) value is 0.375, and the goodness of fit (GoF) value is 0.66. R^2 value > 0.25 indicates a strong exogenous construct effect; Q^2 value > 0 indicates that the built model has predictive capability; and the GoF value > 0.36 indicates that the model fit is quite large (Sholiha & Salamah, 2015).

Figure 3. Path Chart and Factor Loading Values



Source : Processed Data

Table 3. Hypothesis Test

	t-score	P Values
Integrity ---> Fraud Prevention	3.315	0.001
Fraud Awareness ---> Fraud Prevention	2.119	0.034

Source : Processed Data

The results of hypothesis test using path coefficient analysis are in table 3.

The results of hypothesis test based on the value of $\alpha=0.05$ (one tailed) and t-score > 1.645 are as follows:

- a. Integrity has a positive and significant effect on fraud prevention (t-score > 1.645; p-values < 0.05). Thus H1 is supported.
- b. Fraud awareness has a positive and significant effect on fraud prevention (t-score > 1.645; p-values > 0.05). Thus H2 is supported.

5. CONCLUSION

The Covid-19 pandemic has resulted in an increased potential for fraud risk due to changes in interactions and decreased income. Changes in interaction patterns, such as working from home and remote auditing, can increase opportunities. Decrease in revenue can lead to potential fraud risk due to pressure and rationalization.

The results of this study indicate that integrity has a positive and significant effect on fraud prevention. These results strengthen the research conducted by Mohamed & Said (2017) and Said et al. (2017). Likewise, fraud awareness has a positive and significant effect on fraud prevention. These results strengthen the research conducted by Yuniarti (2017). Simultaneously, the constructs of integrity and fraud awareness are able to explain 59.20% of fraud prevention.

Integrity and fraud awareness are two aspects that can prevent fraud. However, the implementation of these two aspects is adjusted to the current conditions which are more dominated by the use of online media. Methods that need to be further strengthened in the context of fraud prevention are the whistleblowing system and anti-fraud campaign or aspects of FP3 and FP4. These two methods are quite effective considering the limitations of superior supervision and audit checks due to the Covid-19 pandemic.

It can be concluded that strengthening integrity and fraud awareness is a fraud prevention strategy that must be considered during this Covid-19 pandemic. Implementation of fraud prevention can be done by strengthening the whistleblowing system and increasing the frequency of anti-fraud campaigns that can be carried out online. It is recommended that further research use other fraud prevention strategies, in different financial institutions, and in non-financial industries that are also affected by the Covid-19 pandemic.

REFERENCES

- Aldasoro, I., Frost, J., Gambacorta, L., & Whyte, D. (2021). Covid-19 and Cyber Risk in the Financial Sector. *BIS Bulletin beyond*, (37), 1-9.
- ACFE. (2015). *Fraud-Related Compliance Fraud Prevention Programs*. Association of Certified Fraud Examiners.
- Badan Pemeriksa Keuangan. (2017). *Standar Pemeriksaan Keuangan Negara (SPKN), BPK Regulation No.1 2017*. Badan Pemeriksa Keuangan Republik Indonesia.
- Badan Pusat Statistik. (2020). *Analisis Hasil Survei Dampak COVID-19. Analisis Hasil Survei Dampak COVID-19 terhadap Pelaku usaha*. Jakarta.
- Bank Indonesia. (2011). *Surat Edaran Bank Indonesia No.13/28/DPNP tanggal 9 Desember 2011 perihal Penerapan Strategi Anti Fraud bagi Bank Umum*. Bank Indonesia.
- Deloitte. (2015). *Deloitte Consumer Insights Capturing Indonesia's Latent Markets*, (May), 1-36.
- Ernst & Young LLP. (2020). *COVID-19 Implications: Internal Fraud*.
- Garson, G. D. (2016). *Partial Least Squares: Regression & Structural Equation Model*. Asheboro: Statistical Publishing Associates. <https://doi.org/10.1201/b16017-6>.
- Ghazali, M. Z., Rahim, M. S., Ali, A., & Abidin, S. (2014). A Preliminary Study on Fraud Prevention and Detection at the State and Local Government Entities in Malaysia. *Procedia - Social and Behavioral Sciences*, 164(August), 437-444. <https://doi.org/10.1016/j.sbspro.2014.11.100>.
- Hussein, A. S. (2015). *Penelitian Bisnis dan Manajemen Menggunakan Partial Least Squares dengan SmartPLS 3.0*. Malang. <https://doi.org/10.1023/A:1023202519395>.
- <https://agora.unicef.org/course/info.php?id=18439>. (n.d.).
- <https://www.acfe.com/standards/>. (n.d.).
- <https://www.fraud-magazine.com/cover-article.aspx?id=4295003053>. (n.d.).
- Ibrahim, U., Rose, S. S., & Mohamed, M. (2015). The types, costs, prevention and detection of occupational fraud: The ACFE perspective. In *2nd International Conference on Accounting Studies (ICAS) 2015*, 501-505.
- Kassem, R., & Higson, A. (2012). The New Fraud Triangle Model. *Journal of Emerging Trends in Economics and Management Sciences*, 3(3), 191-195.
- Ma, K. W. F., & McKinnon, T. (2020). COVID-19 and Cyber Fraud: Emerging Threats During the Pandemic. *SSRN*, 1-15. <http://dx.doi.org/10.2139/ssrn.3718845>.
- Marcu, M. R. (2021). The Impact of the COVID-19 Pandemic on the Banking Sector. *Management Dynamics in the Knowledge Economy*, 9(2), 205-223. <https://doi.org/10.2478/mdke-2021-0013>.

- Mohamed, N., & Said, J. (2017). Mitigating Asset Misappropriation Through Integrity and Fraud Risk Elements : Evidence from Emerging Economies. *Journal of Financial Crime*, 24(2). <https://doi.org/10.1108/JFC-04-2016-0024>.
- Murphy, P. R., & Dacin, M. T. (2011). Psychological Pathways to Fraud: Understanding and Preventing Fraud in Organizations. *Journal of Business Ethics*, 101(4), 601-618. <https://doi.org/10.1007/s10551-011-0741-0>.
- Nikmatu Sholiha, E. U., & Salamah, M. (2015). Structural Equation Modeling Partial Least Square untuk Pemodelan Derajat Kesehatan Kabupaten/Kota di Jawa Timur (Studi Kasus Data Indeks Pembangunan Kesehatan Masyarakat Jawa Timur 2013). *Jurnal Sains dan Seni ITS*, 4(2), 169-174.
- Othman, R., Aris, N. A., Mardziah, A., Zainan, N., & Amin, N. M. (2015). Fraud Detection and Prevention Methods in the Malaysian Public Sector: Accountants' and Internal Auditors' Perceptions. *Procedia Economics and Finance*, 28(15), 59-67. [https://doi.org/10.1016/s2212-5671\(15\)01082-5](https://doi.org/10.1016/s2212-5671(15)01082-5)
- OJK. (2019). *Salinan Peraturan Otoritas Jasa Keuangan Republik Indonesia Nomor 39/POJK.03/2019 tentang Penerapan Strategi Anti Fraud Bagi Bank Umum*. Otoritas Jasa Keuangan. Retrieved from <https://www.ojk.go.id/id/regulasi/Pages/Penerapan-Strategi-Anti-Fraud-Bagi-Bank-Umum.aspx>.
- OJK. (2020). *Peraturan Otoritas Jasa Keuangan Republik Indonesia Nomor 11/POJK.03/2020 tentang Stimulus Perekonomian Nasional Sebagai Kebijakan Countercyclical Dampak Penyebaran Coronavirus Disease 2019*. Otoritas Jasa Keuangan.
- Pinzaru, F., Zbucnea, A., & Anghel, L. (2020). The Impact of The COVID-19 Pandemic on Business. A Preliminary Overview. *Conference: Strategica 2020*. <https://doi.org/10.1016/j.ijforecast.2021.02.009>
- PWC. (2020). *How to Arm Financial Institutions Against Fraud, the Next Covid-19 Battleground*. Price Waterhouse Coopers.
- PWC Indonesia. (2020). *COVID-19 and the Indonesian Banking Industry: Issues and actions to consider*. Price Waterhouse Coopers Indonesia. Retrieved from <https://www.pwc.com/id/en/covid-19-potential-business-impact-for-indonesia/covid-19-indonesia-banking-industry-issues-and-actions.html>
- Rahim, N. A. A. B. A., Omar, K. B., & Azzahra, S. N. A. (2020). Integrity and Employee Job Performance. *Journal of Critical Reviews*, 7(16), 517-521. <https://doi.org/10.31838/jcr.07.16.62>
- Ramadhan, D. (2020). Root Cause Analysis Using Fraud Pentagon Theory Approach (a Conceptual Framework). *Asia Pacific Fraud Journal*, 5(1), 118-125. <https://doi.org/10.21532/apfjournal.v5i1.142>
- Ramamoorti, S. (2008). The Psychology and Sociology of Fraud : Integrating the Behavioral Sciences. *Issues in Accounting Education*, 23(4), 521-533.
- Sabău, E. M., Şendroiş, C., & Sgârdea, F. M. (2013). Corporate Anti-fraud Strategies-Ethic Culture and Occupational Integrity. *Cross-Cultural Management Journal*, 15(2), 59-65.

- Said, J., Alam, M. M., Ramli, M., & Rafidi, M. (2017). Integrating Ethical Values Into Fraud Triangle Theory in Assessing Employee Fraud: Evidence from the Malaysian Banking Industry. *Journal of International Studies*, 10(2), 170-184. <https://doi.org/10.14254/2071-8330.2017/10-2/13>.
- The Institute of Internal Auditor (IIA), The American Institute of Certified Public Accountants (AICPA), & Association of Certified Fraud Examiners (ACFE). *Managing the Business Risk of Fraud: A Practical Guide*.
- Wulandari, D. N., & Nuryatno, M. (2018). Pengaruh Pengendalian Internal, Kesadaran Anti-Fraud, Integritas, Independensi, dan Profesionalisme Terhadap Pencegahan Kecurangan. *Jurnal Riset Akuntansi Mercuru Buana*, 4(2), 117-125. <https://doi.org/10.26486/jramb.v4i2.557>.
- Yuniarti, R. D. (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. <https://doi.org/10.14414/jebav.v20i1.626>.
- Yusti, M., Triyadi, T., & Ramadhan, D. (2021). Analysis of the Root Causes of Fraud Using Risk Causal and Fraud Diamond Matrix: A Case Study on Retail Financing Company. *Asia Pacific Fraud Journal*, 6(1), 159-170. <https://doi.org/10.21532/apfjournal.v6i1.202>.
- Zulfa, K., Bayagub, A., & Firdausi, M. A. (2018). Analisis elemen-elemen fraud pentagon sebagai determinan fraudulent financial reporting. *Jurnal Ekonomi, Manajemen dan Akuntansi*, 3(2), 950-969. <http://dx.doi.org/10.32493/keberlanjutan.v3i2.y2018.p950-969>.

Appendix 1. Research Questionnaire

Variable	Indicator	Code	Questions	Source
INTEGRITY	Honesty	INT-1	Honest behavior (not lying) can prevent employees from committing fraud	Badan Pemeriksa Keuangan (BPK-RI), 2017; Wulandari & Nuryatno, 2018
	Maintaining trust	INT-2	Maintaining trust, both from internal and external company, can prevent employees from committing fraud	
	Conflict of interest	INT-3	Not having a conflict of interest can prevent employees from committing fraud	
	Responsible	INT-4	Responsible behavior towards work can prevent employees from committing fraud	
	Implementing the code of ethics	INT-5	Implementing the code of ethics properly can prevent employees from committing fraud	
	Executing the rules	INT-6	Carrying out work according to company rules can prevent employees from committing fraud	
FRAUD AWARENESS	Responsible for fraud	FAW-1	Fraud handling must be carried out by all parties in the company's organizational structure	Othman et al., 2015
	Fraud Impact	FAW-2	Fraud has a detrimental impact on the company	
	Fraud Threat	FAW-3	Fraud can occur if the parties do not care about the environment	
	Fraud Threat	FAW-4	Fraud can occur due to pressure, opportunity, and rationalization.	
	Anti-Fraud Training	FAW-5	Fraud training for employees must be carried out	
	Red Flag	FAW-6	Fraud can be detected due to unusual conditions (red flag)	
	Types of Fraud	FAW-7	Fraud incidents are related to wrong processes, data/ documents, goods, and money	

Variable	Indicator	Code	Questions	Source
FRAUD PREVENTION	Tone of the Top	FPR-1	Company management has great concern for Fraud	Othman, Aris, Mardziah, Zainan, & Amin, 2015; The Institute of Internal Auditor (IIA) et al., n.d
	Fraud Hotline	FPR-2	The existence of fraud reporting media can prevent employees from committing fraud	
	Whistleblowing Service	FPR-3	The existence of whistleblowing system media can prevent employees from committing fraud	
	Fraud Campaign	FPR-4	The existence of an anti-fraud campaign can prevent employees from committing fraud	
	Inspection by inspection team	FPR-5	Examination by the fraud detection team can prevent employees from committing fraud	
	Supervision in the workspace	FPR-6	Good supervision, such as the presence of CCTV, can prevent employees from committing fraud	
	Technology	FPR-7	The existence of systems and process automation can prevent employees from committing fraud	
	Integrity prevents fraud	FPR-8	Employees who have good integrity will not commit fraud	
	Fraud Awareness improves integrity	FPR-9	Knowledge of fraud (type, impact, and follow-up) can improve employee integrity	
	Fraud Awareness prevents Fraud	FPR-10	Knowledge of fraud (type, impact, and follow-up) can prevent employees from committing fraud	