

# A DISCLOSURE INDEX TO MEASURE THE EXTENT OF ANTI-FRAUD REPORTING IN BANKS

**Haitham Nobanee, Abu Dhabi University**  
**Osama F. Atayah, Abu Dhabi University**  
**Muneer M. Alshater, Middle East University**

## ABSTRACT

**Purpose of the study:** *This paper aims to develop an Anti-Fraud Disclosure Index (AFDI) for the banking sector.*

**Methodology:** *In this paper, we have conducted a comprehensive review of fraud prevention and control for banks. We have reviewed financial reporting standards, anti-fraud regulations, and guidelines around the world. We have also included anti-fraud inputs from related journal articles, professional institutes, and auditing firms.*

**Main Findings:** *The Anti-Fraud Disclosure Index (AFDI) includes 15 categories and 180 developed items to measure the extent of the commitment of the banking sector in fighting several types of fraud.*

**Applications of this study:** *The anti-fraud disclosure index will serve as an evaluation tool to measure the level of commitment of banks in terms of disclosing their approaches and instruments to prevent fraud. It is also expected to inculcate anti-fraud culture among the banking sector to promote accountability and fraud-fighting. Furthermore, it will assist in providing a comprehensive measurement to evaluate the banking sector's performance in fraud combat.*

**Novelty/Originality of this study:** *This paper is the first study to develop a comprehensive fraud disclosure index, contributing to prevent and reduce fraud to a reasonable level.*

**Keywords:** Fraud Prevention, Voluntary Disclosure, Fraud Disclosure Index, Banking Sector.

## INTRODUCTION

The safe and efficient financial sector is essential to maintain a sustainable economy (Sosnovska & Zhytar, 2018). Hence, the fraud in the financial sector has a multidimensional adverse impact on the countries' economies, banks, and individuals (Brychko et al., 2020). Moreover, it increases deficiencies in banks' internal control; leads to a high bank operation cost, it negatively influences the banks' reputation, and threatens the banks' survival. Moreover, recent researchers went beyond and proven that fraud hurting the operation of the banks by reducing their ability to retain current customers and deteriorate their market share (Asmah et al., 2020). The aforementioned, show the importance of sustaining efficient internal control and fraud-fighting procedures to build a trustful relationship between banks and their customers; maintain the confidence, trust, and loyalty of customers to their banks (Hakami & Rahmat, 2019; Varela-Neira et al., 2010).

The Association of Certified Fraud Examiners (ACFE, 2014) explored the fraud cases throughout the world and realized that 36 % of the fraud cases committed in the banking sector. This high percent encouraged many researchers to conduct investigations to determine the

popular fraud types in the financial sector; which have been identified by the Chartered Institute of Management Accountant (CIMA, 2008), including “theft, corruption, conspiracy, embezzlement, money laundering, bribery, and extortion”. Mohd-Sanusi, et al., (2015) added new types such as asset misappropriation, manipulation in financial reports, and internet fraud.

Fraud is the most common scheme of corruption worldwide; it poses tremendous threats for organizations of all types and sizes, particularly banks. According to the Association of Certified Fraud Examiners (2018), fraud caused a global aggregate loss of more than \$7 billion in 2018, with \$130,000 in median loss per case. However, statistical evidence shows an increase in the levels of fraudulent crimes causing more than 42 Billion US\$ losses only in the last 24 months. (Price waterhouse Coopers, 2020). Moreover, Thomas (2018) stated that global fraud penalties reached 11 billion USD since 2012 this growing widespread type of behavior is causing continuous risks and climbing costs as the financial industry plagues by consecutive waves of financial crimes. These facts demand more regulations, internal, external policies, and proactive prevention and detection methods to minimize fraud symptoms severity. PwC’s 2020 report in a global economic crime and fraud survey that companies who invested in fraud prevention programs incurred lower costs when a fraud experienced as 42% response, 17% remediation, and 16% fines and penalty. (Price water house Coopers, 2020). Hence, combating fraud through innovative ways is a top priority for both regulators and banks due to fraudsters' continued ability to adapt and change. In this section, we will focus on previous literature regarding the strategies both authorities and banks have taken to prevent and reduce fraud, addressing the gaps, and rationalizing new solutions.

Even many researchers drilled deeply into the fraud topics; still, no clear anti-fraud disclosure index has been developed to keep transparent relationships between the banks and their clients. Furthermore, from the above premises, we can find a clear gap in having the fraud index. Therefore, this research aims to build a unified fraud index disclosure for the banking sector. The contributions of this study began in helping the banks' leaders to protect their banks and their customers from fraud cases, maintain a reliable and safe financial operation by keeping transparent and more efficient fraud-fighting. Also, provide the policymakers with a reliable and relevant anti-fraud index, which applies to all bank fraud types, and enhances the investors' and stakeholders' trust in the bank’s operations.

This study is structured as follows; the first section offered a brief introduction to support the development of the research. Secondly, we explore the literature relating to fraud prevention and control plans, and the relation of fraud policy disclosure with overall performance. The third section describes the proposed index with rationalizations of its items, while the last part of the paper concludes.

## **LITERATURE REVIEW**

Fighting fraud is a never-ending battle, people tend to behave fraudulently for various internal and external reasons, whatever the motives are and the case of regular fraud occurrence, the impact would be severed on all levels starting from the victim to corporations ending with the society (Junger et al., 2020). As from corporations side especially banks fraud produce significant losses (Admati, 2017; Korauš et al., 2017), for instance: massive governmental fines, reputational losses, degradation of share values up to bankruptcy or liquidation are caused by fraud and corruption (Reurink, 2018); this is why fraud prevention and detection hold on to the top priorities on various organizational levels; such as the international financial bodies,

governmental regulators and corporate directors (Armour et al., 2020; Spink et al., 2019; Zachariadis et al., 2019; Utami et al., 2020 ; Jeyanthi et al., 2020; Darwish, 2020, Daliri, 2020; Nyakarimi et al., 2020 ).

Previous studies have emphasized the absence of a common approach to fraud prevention due to fraud nature, types, and complexity, which requires different methods and strategies to avert fraud (Mohd-Sanusi et al., 2015). Therefore, researchers were diligent in developing models and theories of fraud prevention and management. Wilhelm (2004) further deep study, he developed a fraud management lifecycle and includes a dynamic, evolving and adaptive theory, the lifecycle composed of eight stages: Deterrence, prevention, detection, mitigation, analysis, policy, investigation, and prosecution, prevention methods are diverse and include internal and continuous audits, external audit, code of conduct, internal control system, fraud risk assessment, whistleblowing, forensic accounting services. Data mining, anti-fraud training, fraud control policies and firewalls, etc. perceptions do differ regarding the effectiveness of these methods (Sofia, 2016; Kotb et al., 2020; Montesdeoca et al., 2019; Almajir & Usaini, 2020; Barker, 2020). However, (Mangala & Kumari, 2017) sums up that methods of prevention include unavoidable costs and must be considered an investment as it saves from potential losses affecting business stability, revenue, and image. A significant relationship between voluntary disclosure, reducing fraud, and operational risk identified by (Elamer et al., 2019), however, means to monitor this process are still in early-stage research.

Financial reporting and corporate disclosure are usually regulated, mandated, or standardized (Barckow, 2019; Ho, 2020; Jackson et al., 2020). Disclosed financial information is usually wider than the normal required by regulators (Shakespeare, 2020), due to the expansion of overall disclosure policy is highly associated with the lower cost of both debt and equity. Moreover, the wide disclosure enhances the ability of banks to access external financing. The aforementioned does not apply to the case of Anti-Money Laundering (AML) or anti-fraud prevention policy disclosures, as previous studies show a low level of such type of disclosure in certain countries (Nobanee & Ellili, 2018). Previous literature addressed the cost-benefit (or economic) analysis showing that proper disclosure regulations produce a market-wide cost, provide strict sanctions that are not available privately, and mitigates dead-weight costs from fraud and agency conflicts (Leuz & Wysocki, 2016).

Many researchers investigating operational risks have applied an index to assess the extent of disclosure of financial institutions (e.g. Prasad, 2017; Nugraheni & Khasanah, 2019; Said et al., 2018; Kolsi & Attayah, 2018). However, literature reviews have indicated that there were no indices for anti-fraud disclosure. Moreover, we have noticed that regulatory efforts in combating fraud are scattered, time-consuming, hard to follow, and the idea of disclosing is a real performance boost that eases the way for both regulators and corporations.

There has been little discussion about the anti-fraud disclosure. Recently, (Joseph et al., 2020) have used the idea of indexing and implemented it in university fraud prevention. On the other hand, no study has developed a unified anti-fraud disclosure index for banks. Hence, the development of the anti-fraud disclosure index brings more insight into the needed criteria to ensure banks' efforts in combating fraud. Oino (2019) documented that higher transparency

positively correlated to the confidence of the banking system, and reducing the uncertainty of banks assessment for all involved stockholders.

## METHODOLOGY

This study aims to develop a comprehensive Anti-Fraud Disclosure Index (AFDI) for banks. To develop an AFDI disclosure index and to identify its component items, a careful review of financial reporting standards, anti-fraud regulations, and guidelines around the world has been undertaken; furthermore, we have included inputs from related journal articles, professional institutes in accounting and finance, and auditing firms. Our sources include the recommendations and reports of (PwC, 2008; CIMA, 2008; Joseph, et al., 2020; KPMG, 2019; World Bank, 2006; Joseph et al., 2016; Nobanee & Ellili, 2018; Capterra, 2020).

## RESULTS/FINDINGS

The suggested AFDI is outlined in Table 1. Our suggested AFDI consists of 180 items in 15 categories that include: General anti-fraud information, ethics and code of conducts, board & and senior management responsibilities, anti-fraud external verification, and assurance, building human resources to combat fraud, screening of staff and authorized representatives, Know Your Customers (KYC), fraud risk assessments and management, fraud prevention tools and techniques, fraud detection tools and techniques, fraud investigation, financial statement fraud, accounting and reporting for combatting fraud, fraud statistics and reports, and Electronic investigations and technology.

<b>Item</b>	<b>PWC 2008</b>	<b>CIM A200 8</b>	<b>Joseph , et al., 2020</b>	<b>KPM G 2019</b>	<b>World Bank, 2006</b>	<b>Josep h et al., 2016</b>	<b>Nobane e&amp;Ellili , 2018</b>	<b>Capte rra 2020</b>
<b>Category 1: General anti-fraud information</b>								
1. Anti-fraud internal policies, guidelines, and procedures	x				x	x	x	
2. Anti-fraud compliance officer, program or department				x			x	
3. Vision and mission of the compliance department			x					
4. Duties and responsibilities of the compliance officer			x					
5. Organization compliance Plan			x					
6. Objectives of the compliance department			x					
7. Functions of the compliance department			x					
8. A framework of the compliance department			x					
9. An organizational chart of the			x					

compliance department								
10. Follow-up reviews of the compliance officer, program, committee, or department			X					
11. Minutes of meetings of the compliance officer, committee, or department			X					
12. Raising awareness of anti-fraud	X	X			X	X	X	
13. Fraud response plan		X						
14. Anti-fraud domestic cooperation with financial institutions					X		X	
15. Anti-fraud domestic cooperation with regulatory authorities							X	
16. International cooperation in anti-fraud							X	
17. Participating in national/international anti-fraud committees							X	
<b>Category 2: Ethics and code of conducts</b>								
18. Establishing codes of conduct relate to fraud practices	X		X			X		
19. Communicating the code of conduct to the members of the institution	X					X		
20. Formation of a monitoring system on the implementation of the codes of conduct	X					X		
<b>Category 3: Board, and senior management responsibilities</b>								
21. Oversight by the board and audit committees	X	X				X		
22. Approval of anti-fraud policies by the board of directors.						X		
23. Board support for the management's implementation of the anti-fraud program	X					X		
24. Senior management compliance with the anti-fraud program						X		
25. Establishing feedback mechanisms and continuous improvement of the program	X					X		
26. Board assessment of the anti-fraud program	X							
<b>Category 4: Anti-Fraud external verification and assurance</b>								
27. Consulting an anti-fraud specialist							X	
28. Board consideration approval to commission external						X		

verification of anti-fraud								
29. Board publicly disclosing that an external review has taken place						X		
30. Assurance statements explicitly cover program reporting						X		
<b>Category 5: Building human resources to combat fraud</b>								
31. Anti-fraud employee-training programs	X	X	X			X	X	
32. Recognition of anti-fraud efforts in staff promotions and annual evaluations						X		
33. Communicating anti-fraud policies and guidelines with staff and employees.						X		
34. Reports the percentages of employees trained in the anti-fraud policies						X		
35. Speak up policy						X		
36. Verification of employees who are members of political parties						X	X	
37. Verification of employees who are members of charitable organizations						X	X	
<b>Category 6: Screening of staff and authorized representatives</b>								
38. Screening Staff of any criminal, civil, or administrative liabilities	X	X				X	X	
39. Screening authorized representatives	X					X	X	
40. Detailed checks	X							
41. Reference checks	X							
42. Qualifications checks	X							
43. Background searches	X							
44. Reliance on a third party to do the staff and authorized representatives screening	X							
<b>Category 7: Know Your Customers (KYC)</b>								
45. Customer Identification Program (CIP)								
46. Customer Due Diligence (CDD)								
47. Enhanced Due Diligence (EDD)							X	
48. Verification of identity							X	
49. Customer defined							X	
50. Reliance on a third party to do the CDD							X	
51. Validate that the third party is							X	

regulated, supervised, or monitored.								
52. Verification of financial aids activities and fund transfer								X
53. Verification of safe deposit boxes rented								X
<b>Category 8: Fraud risk assessments and management</b>								
54. Comprehensive fraud risk management framework	X		X					
55. Communicating the comprehensive fraud risk management framework with staff	X							
56. Identify high fraud risk areas								
57. Analyzing fraud risks		X						
58. Staff involvement in capturing, validating, identifying, and reporting fraud risk	X							
59. Fraud risk awareness among staff	X							
60. Fraud risk assessments for intellectual property and confidential information	X							
61. Fraud risk assessment purchasing and payroll	X							
62. Fraud risk assessments for sales and inventory	X							
63. Fraud risk assessments for cash and cheques	X							
64. Fraud risk assessments for physical security	X							
65. Fraud risk assessments for information technology	X							
66. Develop a risk response strategy		X	X					
67. Controls assurance		X						
68. Establish a fraud risk management group and set goals		X						
69. Identify fraud risk areas		X						
70. Understand and assess the scale of risk		X						
71. Develop a fraud risk response strategy		X	X					
72. Implement the fraud risk strategy and allocate responsibilities		X						
73. Implement and monitor suggested controls		X						
74. Review and refine and do it again		X						
75. Information for decision making		X						
<b>Category 9: Fraud prevention tools and techniques</b>								

76. Take all appropriate measures to prevent fraud						x			
77. Developing a sound ethical culture		x							
78. Fraud risk as an integral part of an overall corporate risk-management strategy		x							
79. Develop an integrated strategy for fraud prevention and control		x	x						
80. Develop an ownership structure from the top to the bottom of the organization		x							
81. Introduce a fraud policy statement		x							
82. Introduce an ethics policy statement		x							
83. Actively promote these policies through the organization		x							
84. Establish a controlled environment		x							
85. Establish sound operational control procedures		x							
86. Introduce a risk management education, training and awareness program		x							
87. Action plan on fraud prevention, detection and responses strategies		x	x						
88. Establish a learn from experience group.		x							
89. Enterprise risk analysis and management	x							x	
90. Business line risk assessment								x	
91. Customer risk assessment and credit check								x	
92. Office of foreign assets control risk assessment								x	
93. High-risk customers								x	
94. High-risk geographies								x	
95. Nonresident and foreign person risk assessment								x	
96. High-risk products, services, and transactions								x	
<b>Category 10: Fraud detection tools and techniques</b>									
97. Reporting mechanisms and whistleblowing protection	x	x				x			
98. Internal tip-off		x							
99. External tip-off		x							
100. Law enforcement investigation		x							
101. Change of personnel/duties		x							
102. Internal audit		x							

103.External audit		x						
104.Corporate security		x						
105.Risk management		x						
106.By accident		x						
107.Warning signs		x						
108.Fraud alerts		x						
<b>Category 11: Fraud investigation</b>								
109.Department of Institutional Integrity					x			
110.Forensic accounting/transaction analysis	x							
111.Computer forensics	x							
112.Fieldwork and interviews	x	x						
113.Responding to a fraud incident	x							
114.Initial investigation	x	x						
115.Receipt and initial assessment of suspicion, allegation or 'tip-off'	x							
116.Suspect interviews	x	x						
117.Legal actions	x							
118.Reporting of investigation findings and subsequent actions	x	x						
119.Police referral	x	x						
120.Fidelity insurance	x	x						
121.Public announcements	x							
122.Follow-up reviews	x							
123.Preservation of evidence		x						
<b>Category 12: Financial statement fraud</b>								
124.Revenue recognition	x							
125.Expense understatement	x							
126.Asset overstatement	x							
127.Understatement of liabilities or asset impairment	x							
128.Inventory variances	x							
129.Improper disclosure of transactions	x							
<b>Category 13: Accounting and reporting for combatting fraud</b>								
130.The bank prohibits all forms of fraud					x	x		
131.Internal control to counter fraud	x	x	x			x		
132.Discloses the number of violations	x					x		
133.Reports the number of dismissals of employees						x		
134.The function of internal audit			x					
135.Mission and vision/audit charter			x					
136.The objective of internal audit			x					





example is the case of NMC group, as it derives the banks in many countries and issued loans with more than its market value by three times.

### LIMITATION AND STUDY FORWARD

We are recommending to conduct empirical studies and measure the level of banks' anti-fraud disclosure, which will provide a better understanding of the ability and readiness of banks to fight the fraud and obtain a high level of transparency. As the commitment of banks to transparency will be even helpful to the earning and financial information quality.(Kolsi and Atayah, 2018). Policymakers should start taking forward steps to impose relevant regulations on the anti-fraud disclosure that will be beneficial to the country's economy and banking sector.

### AUTHORS CONTRIBUTION

All authors have contributed equally to all stages and sections of this research.

### REFERENCES

- Abdulrahman, M.H.A., AbYajid, M.S., Khatibi, A., & Azam, S.F. (2020). Forensic accounting on fraud detection in the UAE banking sector. *European Journal of Management and Marketing Studies*, 5(2), 1-25.
- Admati, A.R. (2017). A skeptical view of financialized corporate governance. *Journal of Economic Perspectives*, 31(3), 131-50.
- Almajir, A.G., & Usaini, M. (2020). Evaluation of fraud and control measures in the Nigerian banking sector. *International Journal of Economics and Financial Issues*, 10(1), 159-169.
- Armour, J., Gordon, J., & Min, G. (2020). Taking Compliance Seriously. *Yale J*, 37(1).
- Asmah, A.E., Atuilik, W.A., & Ofori, D. (2020). Antecedents and consequences of staff related fraud in the Ghanaian banking industry. *Journal of Financial Crime*, 27(1).
- Association of Certified Fraud Examiners. (2018). *Global study on occupational fraud and abuse*. Report to the Nations, 10(80).
- Barker, R. (2020). The use of proactive communication through knowledge management to create awareness and educate clients on e-banking fraud prevention. *South African Journal of Business Management*, 51(1), 1-10.
- Barckow, A. (2019). Regulation in corporate disclosure. *Schmalenbach Business Review*, 71(2), 249-253.
- Brychko, M., Bilan, Y., Lyeonov, S., & Mentel, G. (2020). Trust crisis in the financial sector and macroeconomic stability: A structural equation modelling approach. *Economic Research-Ekonomska Istraživanja*, 1-28.
- Capterra, C. (2020). Best financial fraud detection software.
- Chartered Institute of Management Accountant (CIMA). (2008). *Fraud risk management: a guide to good practice*.
- Daliri, S. (2020). *Using harmony search algorithm in neural networks to improve fraud detection in banking system*. Computational Intelligence and Neuroscience.
- Darwish, S.M. (2020). A bio-inspired credit card fraud detection model based on user behavior analysis suitable for business management in electronic banking. *Journal of Ambient Intelligence and Humanized Computing*, 1(15), 4873-4887.
- Elamer, A.A., Ntim, C.G., Abdou, H.A., & Pyke, C. (2019). Sharia supervisory boards, governance structures and operational risk disclosures: Evidence from Islamic banks in MENA countries. *Global Finance Journal*, 46(100488).
- Hakami, T.A., & Rahmat, M.M. (2019). Fraud prevention strategies: The perception of Saudi Arabian banks employees. *Asian Journal of Accounting and Governance*, 11(1), 29-38.
- Ho, V.H. (2020). Non-financial reporting & corporate governance: Explaining American divergence & its implications for disclosure reform. *Accounting, Economics, and Law*, 1-23
- Jackson, G., Bartosch, J., Avetisyan, E., Kinderman, D., & Knudsen, J.S. (2020). Mandatory non-financial disclosure and its influence on CSR: An international comparison. *Journal of Business Ethics*, 162(2), 323-342.

- Jeyanthi, P.M., Mansurali, A., Harish, V., & Krishnaveni, V.D. (2020). Significance of fraud analytics in Indian banking sectors. *Journal of Critical Reviews*, 7(4), 209-213.
- Joseph, C., Gunawan, J., Sawani, Y., Rahmat, M., Noyem, J.A., & Darus, F. (2016). A comparative study of anti-corruption practice disclosure among Malaysian and Indonesian Corporate Social Responsibility (CSR) best practice companies. *Journal of cleaner production*, 112, 2896-2906.
- Joseph, C., Omar, N.H., Janang, J.T., Rahmat, M., & Madi, N. (2020). Development of the university fraud prevention disclosure index. *Journal of Financial Crime*.
- Junger, M., Wang, V., & Schlömer, M. (2020). Fraud against businesses both online and offline: Crime scripts, business characteristics, efforts, and benefits. *Crime Science*, 9(1), 1-15.
- Kolsi, M.C., & Attayah, O.F. (2018). Are socially responsible firms less engaged in earnings management? Evidence from ADX listed companies. *International Journal of Business Innovation and Research*, 17(4), 536-560.
- Kolsi, M.C., & Attayah, O.F. (2018). Environmental policy disclosures and sustainable development: Determinants, measure and impact on firm value for ADX listed companies. *Corporate Social Responsibility and Environmental Management*, 25(5), 807-818.
- Korauš, A., Dobrovič, J., Rajnoha, R., & Brezina, I. (2017). The safety risks related to bank cards and cyber attacks. *Journal of security and sustainability issues*, 6(4):563-574.
- Kotb, A., Elbardan, H., & Halabi, H. (2020). Mapping of internal audit research: A post-Enron structured literature review. *Accounting, Auditing & Accountability Journal*, 33(8).
- KPMG, (2019). *The multi-faceted threat of fraud*. Retrieved 10 July 2020.
- Leuz, C., & Wysocki, P.D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of accounting research*, 54(2), 525-622.
- Mangala, D., & Kumari, P. (2017). Auditors' perceptions of the effectiveness of fraud prevention and detection methods. *Indian Journal of Corporate Governance*, 10(2), 118-142.
- Montesdeoca, M., Medina, A.J., & Santana, F. (2019). Research topics in accounting fraud in the 21st century: A state of the art. *Sustainability*, 11(6), 1570.
- Nobanee, H., & Ellili, N. (2018). Anti-money laundering disclosures and banks' performance. *Journal of Financial Crime*, 25(1).
- Nugraheni, P., & Khasanah, E.N. (2019). Implementation of the AAOIFI index on CSR disclosure in Indonesian Islamic banks. *Journal of Financial Reporting and Accounting*, 17(3), 365-382.
- Nyakarimi, S.N., Kariuki, S.N., & Wangâ, P. (2020). Risk assessment and fraud prevention in banking sector. *The Journal of Social Sciences Research*, 6(1), 13-20.
- Oino, I. (2019). Do disclosure and transparency affect bank's financial performance? *Corporate Governance: The International Journal of Business in Society*, 19(6), 1344-1361.
- Prasad, M., Mishra, T., & Kalro, A.D. (2017). Environmental disclosure by Indian companies: An empirical study. *Environment. Development and Sustainability*, 19(5), 1999-2022.
- Pricewaterhousecooper, (2008). *Fraud: A guide to its prevention, detection and investigation*. Retrieved 8 July 2020.
- PricewaterhouseCoopers, (2020). *PwC's global economic crime and fraud survey 2020 fighting fraud: A never-ending battle*. Retrieved 29 July 2020.
- Reurink, A. (2018). Financial fraud: A literature review. *Journal of Economic Surveys*, 32(5), 1292-1325.
- Said, R., AbdSamad, K., Sidek, N.Z.M., Ilias, N.F., & Omar, N. (2018). Corporate social responsibility disclosure index of Malaysian Shariah-compliant companies. *International Journal of Ethics and Systems*, 34(1), 55-69.
- Sanusi, Z.M., Rameli, M.N.F., & Isa, Y.M. (2015). Fraud schemes in the banking institutions: prevention measures to avoid severe financial loss. *Procedia economics and finance*, 28, 107-113.
- Shakespeare, C. (2020). Reporting matters: The real effects of financial reporting on investing and financing decisions. *Accounting and Business Research*, 50(5), 425-442.
- Sofia, I.P. (2016). The effectiveness of fraud early warning system in financial reporting: What is the most effective method and technology used? *South East Asia Journal of Contemporary Business, Economics, and Law*, 9(1), 14-21.
- Sosnovska, O., & Zhytar, M. (2018). Financial architecture as the base of the financial safety of the enterprise. *Baltic Journal of Economic Studies*, 4(4), 334-340.
- Spink, J., Chen, W., Zhang, G., & Speier-Pero, C. (2019). Introducing the Food Fraud Prevention Cycle (FFPC): A dynamic information management and strategic roadmap. *Food Control*, 105, 233-241.
- Thomas, H. (2018). A critical analysis and evaluation of the key changes introduced by the criminal finances act 2017 and their likely impact in combatting financial crime and terrorist financing. *SOAS LJ*, 5, 173.

- Utami, W., Nugroho, L., & Yelvionita, V. (2020). Early warning fraud determinants in banking industries. *Asian Economic and Financial Review*, 10(6), 604-627.
- Varela- Neira, C., Vázquez- Casielles, R., & Iglesias, V. (2010). Lack of preferential treatment: Effects on dissatisfaction after a service failure. *Journal of Service Management*, 21(1).
- Wilhelm, W.K. (2004). The fraud management lifecycle theory: A holistic approach to fraud management. *Journal of economic crime management*, 2(2), 1-38.
- World Bank, (2006). *User Friendly Version of the Anti-Corruption Guidelines*.
- Zachariadis, M., Hileman, G., & Scott, S.V. (2019). Governance and control in distributed ledgers: Understanding the challenges facing blockchain technology in financial services. *Information and Organization*, 29(2), 105-117.