

Exploring The Causes of Fraud: A Decade of Research and Future Directions

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Abstract- This study aims to examine and map the development of research on the causes of fraud over the last decade, from 2016 to 2025. The method used is a systematic literature review combined with bibliometric analysis. The research data was obtained from the Scopus database through the Publish or Perish application, with the article selection process referring to the PRISMA guidelines, resulting in 28 articles that met the inclusion criteria. The analysis was conducted using VOSviewer and Microsoft Excel to identify publication trends, research characteristics, and thematic clusters related to the causes of fraud. The results of the study show a significant increase in the number of publications in recent years, indicating increased academic attention to the issue of fraud. Bibliometric mapping produced three main clusters representing types of fraud, namely corruption, asset misappropriation, and financial statement fraud. Each cluster showed that fraud was caused by a combination of individual, organisational, and institutional environmental factors. This study provides a comprehensive overview of the direction and focus of research on the causes of fraud and serves as a basis for the development of future research and fraud prevention strategies.

Keyword: Asset Misappropriation, Corruption, Financial Statement Fraud, Fraud.

I. Introduction

Fraud is one of the most serious problems faced by organisations in various sectors (ACFE, 2022). Fraud is understood as an intentional act to obtain unlawful gains through manipulation, misuse of assets, misrepresentation of information, or breach of integrity. Fraud is categorised into three main forms, namely asset misappropriation, corruption, and financial statement fraud. (ACFE, 2024).

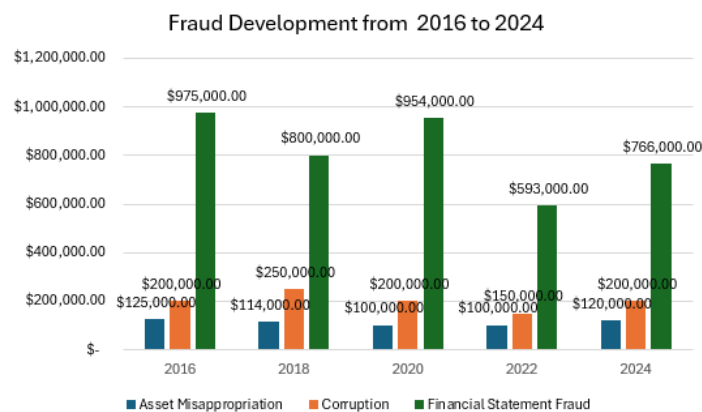


Figure 1. Fraud Development from 2016 to 2024

Source: Data Processed, 2026

Based on reports from the Association of Certified Fraud Examiners (ACFE), the development of fraud from 2016 to 2024 indicates that financial statement fraud is the type of fraud with the highest loss value compared to other types. In 2016, losses due to financial statement fraud reached approximately \$975,000 and, although fluctuating, remained dominant through 2024 at around \$766,000. Meanwhile, corruption shows a relatively stable trend, with losses ranging from \$150,000 to \$250,000, whereas asset misappropriation has the lowest loss value but occurs consistently each year, ranging from approximately \$100,000 to \$125,000. These data indicate that although asset misappropriation occurs more frequently, the greatest financial impact comes from financial statement fraud. This underscores the importance of further research on the underlying causes and prevention efforts, particularly in the context of financial reporting.

Many studies have tried to explain why fraud happens, using different methods. Generally, factors like pressure, opportunities from weak internal controls, justification for unethical behavior, and individual and organizational

traits are viewed as the main triggers of fraud. As research has advanced, the understanding of fraud's causes has broadened. It now includes the impact of organizational culture, corporate governance, technology changes, and collusion between parties as important factors.

Based on this background, this study aims to explore and map the causes of fraud that have been studied in academic literature over the past decade. Through a systematic literature review (SLR) approach, this study is expected to identify patterns, trends, and the main focus of research related to the causes of fraud, while also revealing existing research gaps. In addition, this study also aims to provide direction for future research in order to enrich the development of science and support more effective fraud prevention efforts.

II. Methods

We use a SLR approach along with bibliometric analysis for analyzing the progress of research on the causes of fraud over the past decade. The methodological approach of the current study adopts with that done by Zahidi and Othman (2025). Research information gathered from Scopus using Publish or Perish (PoP) software on the aid of specific key search terms. The articles that had been identified were further screened according to the selection and non-selection criteria in accordance with the research prompting topics. Afterwards, the bibliographic data were imported into VOSviewer for keyword network and MS Excel to conduct descriptive data processing, deduplication checking and publication trend analysis. Zahidi and Othman (2025) suggest the following five steps.

1. Determining the research topic.
2. Formulating research question.
3. Article search and selection.
4. Thematic analysis and conceptualization.
5. Finding and compiling research results.

Formulating Research Question

The following research questions are proposed in this study as follows:

RQ1. How have research trends on the causes of fraud evolved over the past decade?

RQ2. What are the characteristics of the research based on author demographics, articles, and research locations or contexts?

RQ3. What patterns and future research directions related to the causes of fraud can be identified from bibliometric mapping?

Article Search and Selection

The article selection process in this study was conducted systematically using the PRISMA method to ensure the quality and relevance of the sources used. This stage includes identification, screening, and eligibility assessment of articles, resulting in studies that are truly aligned with the research focus on the causes of fraud.

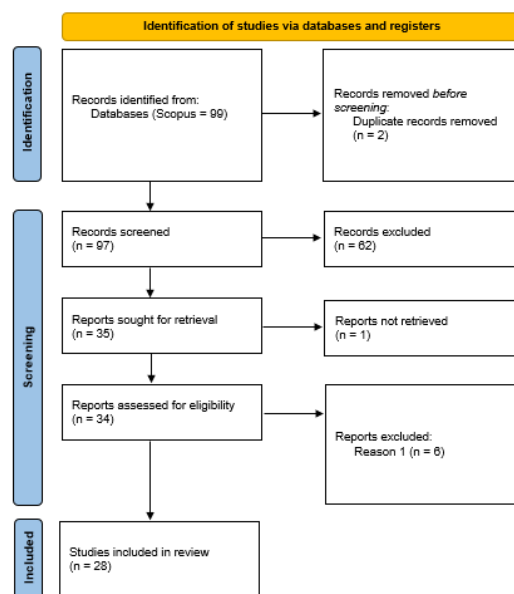


Figure 1. PRISMA 2020 flow diagram

Source: The data is processed and adapted PRISMA (2021)

Based on Figure 1, the identification stage yielded 99 articles obtained from the Scopus database. Subsequently, 2 duplicate articles were removed, leaving 97 articles for the screening stage. At this stage, 62 articles were excluded for not meeting the criteria, such as not being openly accessible. From these results, 35 articles proceeded to the full-text review stage; however, 1 article was incomplete, leaving 34 articles. In the final stage, 6 additional articles were excluded due to irrelevance to the research topic, resulting in 28 articles included in this study. These findings indicate that the selection process was conducted rigorously to ensure that the analyzed articles are truly relevant and of high quality.

III. Results and Discussion

Research Trends

The trend analysis of articles was conducted to show the distribution of the number of articles used in this study based on their year of publication. This aims to provide an overview of the time period of the literature sources that form the basis of the study on the causes of fraud.

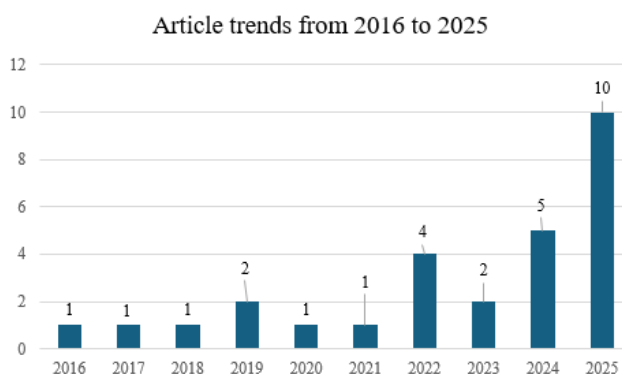


Figure 2. Article trend from 2016 - 2025
Source: Data Processed, 2025

Based on Figure 2, it can be seen that the articles used in this study span the period from 2016 to 2025, with a fluctuating trend. From 2016 to 2018, there was 1 article used in each year. The number of articles began to increase in 2019 to 2 articles, then decreased again in 2020. Subsequently, there was a gradual increase from 2021 to 2024, with 1, 4, 2, and 5 articles respectively. The peak in article usage occurred in 2025 with a total of 10 articles. This indicates that most of the references used in this study come from recent publications, reflecting the relevance and up-to-date nature of the research conducted.

Article Overview

The distribution of the number of authors in an article is an important indicator for examining research collaboration patterns. Through this analysis, it can be identified to what extent studies on the causes of fraud are conducted individually or collaboratively by researchers.

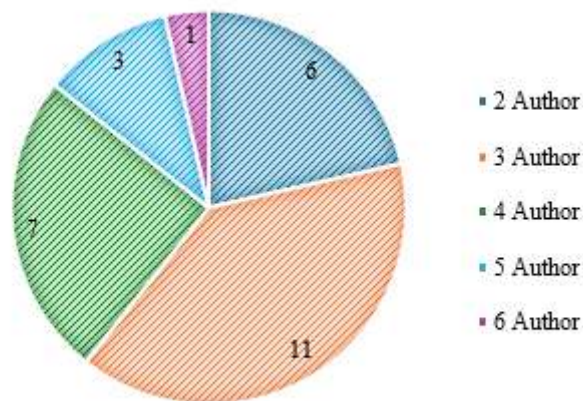


Figure 3. Number of Authors and Articles
Source: Data Processed, 2025

Based on Figure 5, it can be seen that research on the causes of fraud is divided into three main clusters. Cluster 1 focuses on corruption, which is influenced by factors such as pressure, opportunity, and rationalization within organizational and institutional contexts. Cluster 2 relates to asset misappropriation, which is associated with the misuse of assets due to weak internal controls as well as individual behavioral factors. Meanwhile, Cluster 3 discusses financial statement fraud, which is driven by pressure to achieve financial targets, management motivation, and gaps in monitoring systems. These three clusters indicate that the causes of fraud are not only individual in nature but are also influenced by organizational and environmental factors.

The cluster classification in Table 1 aims to group the keywords used in the research into their respective categories. This grouping provides a more detailed overview of the variables and concepts that dominate each cluster, thereby facilitating a better understanding of the research focus and direction in studies on the causes of fraud.

Table 1. Cluster Division

Cluster	Keyword
Cluster 1	Accruals, anti-corruption, arrogance, asset misappropriation tendency, behavioural, board of commissioner, civil servants, collusion, corruption, corruption strategy, economy, ethical leadership, expenditure, financial fraud, financial institution, financial pressure, fraud diamond theory, industry risk, law enforcement, leadership, liquidity, Malaysian anti-corruption, Malaysian federal ministries, nacs, narcissism, opportunity, organizational controls, oversight, peer influence, pestel analysis, pressure, rationalisation, rationalization, reporting, risk, social construct, theory of planned behavior, unethical behavior, women
Cluster 2	Asset misappropriation, bribery and corruption, capability, confirmatory factor analysis, corporate frauds, covid-19, cressy, ego, ethics, financial crimes, financial statement, fraud, fraud diamond, fraud hexagon, fraud pentagon, fraud polynomial, fraud risk factors, fraud schemes, Islamic religiosity, Malaysia, Malaysian public sector, occupational fraud, perception, police, predictors, public female employee, public sector, public sector employees, religiosity, smes, Somalia
Cluster 3	Agency theory, artificial neural network, association of southeast asian nations, audit, beneish model, benford's law, cheat triangle, corruption level, financial reporting, financial statement fraud, fiscal decentralization, fraud detection, fraud pentagon theory, fraud triangle, Indonesia, manipulating, misreporting, motivation, property and real estate, public company, revenue management, soe, state-owned enterprise, variable selection frame

Source: Data Processed, 2025

The overlay visualization in Figure 6 is used to illustrate the development of research trends and to identify future research opportunities. Through this visualization, it is possible to recognize emerging topics that have the potential to be further developed, thereby providing direction for future studies in examining the causes of fraud more comprehensively.

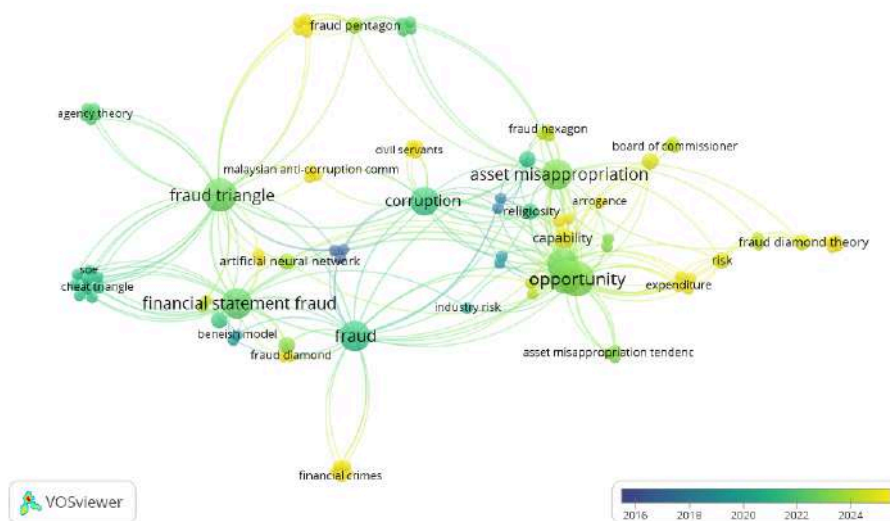


Figure 6. Overlay Visualization
Source: Data processed using VOSviewer, 2025



IV. Discussion

Cluster 1 shows that the causes of corruption can be explained through various theoretical and contextual perspectives. The study by Indrijawati et al., (2025), which applies the Fraud Hexagon Theory, demonstrates that pressure, collusion, opportunity, and rationalization have a significant positive effect on corruption among local government employees in Indonesia. These findings confirm that both financial and non-financial pressures, opportunities arising from weak internal controls, and self-justification of unethical actions are key drivers of corrupt behavior. In addition, collusion between employees and external parties further facilitates the occurrence of corruption, while individual capability is found to have no significant effect, and arrogant attitudes are negatively associated with the tendency toward corruption (Indrijawati et al., 2025).

Another study by Sriyana et al., (2017), which analyzed corruption court verdicts in Indonesia, found that perpetrators with higher levels of seniority tend to cause greater financial losses than younger offenders. This indicates that greater experience and broader access to organizational systems can increase an individual's capacity to commit and conceal corruption. In addition, the study emphasizes that organizational culture, poor leadership, and weak character education contribute to the rationalization of corrupt behavior.

From a social and behavioral perspective, Zulaikha et al., (2019) integrated the Theory of Planned Behavior and social construction to analyze intentions and corrupt behavior. The results show that permissive attitudes toward corruption, supportive subjective norms, and perceived behavioral control significantly influence an individual's intention to engage in corruption. Meanwhile, the study by Amran et al., (2025), which focuses on gender dynamics, reveals that performance pressure, difficulties in balancing work and family responsibilities, and financial pressure drive women's involvement in corruption, particularly in the form of abuse of authority and the submission of false claims.

Cluster 2 indicates that the causes of asset misappropriation can be examined through various fraud models, ranging from the Fraud Triangle to the Fraud Hexagon. The study by Ariffin et al., (2023), which focuses on public sector organizations in Malaysia, shows that rationalization, proxied by poor organizational culture, is a significant factor influencing the tendency toward asset misappropriation. Meanwhile, financial pressure, work pressure, and weaknesses in internal control do not show a significant effect. These findings suggest that, in the public sector context, moral justification and the normalization of unethical behavior within the work environment play a more critical role than external pressures or system weaknesses.

Another study by Said et al., (2018), which integrates religiosity into the Fraud Triangle, reveals that pressure, opportunity, and rationalization have positive relationships with asset misappropriation, while religiosity has a negative effect. This indicates that, in addition to the classical factors of the Fraud Triangle, individual spiritual and ethical dimensions can also function as preventive mechanisms. On the other hand, the study by Yusrianti et al., (2023) adds peer influence as an important determinant, showing that peer pressure can mediate the relationship between rationalization and the tendency toward asset misappropriation. These findings reinforce that explanations of fraudulent behavior are not solely individual in nature but are also influenced by social dynamics and the organizational environment. Research in the SME context by Talib et al., (2024), which employs the Fraud Hexagon model, finds that collusion is the most significant factor contributing to asset misappropriation, followed by rationalization and opportunity. These results underscore that in small and medium-sized enterprises, cooperation among parties within the organization, whether among employees, with suppliers, or with superiors, can create substantial opportunities for structured asset misappropriation.

Cluster 3 indicates that financial statement fraud is triggered by a complex interaction between internal and external organizational factors. Various fraud theory models, such as the Fraud Triangle, Fraud Diamond, Fraud Pentagon, and Fraud Hexagon (SCCORE), suggest that pressure, opportunity, and rationalization are the primary drivers of fraud. Studies by Yusrianti et al., (2020) and Herdjiono and Kabalmay (2021) confirm that financial pressure, such as high financial targets (measured by ROA) and financial instability (changes in assets), significantly increases the likelihood of financial statement fraud. In addition, opportunities arising from weak internal oversight, such as low effectiveness of the board of commissioners or audit committee, also play an important role in facilitating fraudulent actions.

Rationalization often serves as a justification for fraudulent behavior, although empirical findings on this factor are not always consistent. Yusrianti et al., (2020) find that rationalization, proxied by information asymmetry, related party transactions, and changes in directors, does not have a significant effect on financial statement fraud in Indonesia. In contrast, Herdjiono and Kabalmay (2021) report that rationalization, measured by auditor changes, is not significant, while Rahman et al., (2025) find that rationalization, in the form of audit opinions, significantly predicts fraud among firms listed on the Development Board. This inconsistency suggests that rationalization may be highly contextual and dependent on firm characteristics and the regulatory environment. Recent developments in fraud theory, such as the Fraud Hexagon (SCCORE), add collusion and ego as additional driving factors. The study by Arum et al., (2024) shows that collusion, particularly political connections, significantly affects financial statement fraud, while ego, measured by the frequency of CEO

images in annual reports, also contributes to fraudulent behavior. Based on these findings, several questions can be developed for future research, as follows.

The results of the overlay visualization indicate that research on the causes of fraud continues to evolve, with the emergence of several topics that demonstrate a higher level of novelty. Research areas highlighted in yellow represent relatively new and less explored topics, particularly those related to cultural factors, technology, and the interaction between internal and external factors in influencing the occurrence of fraud. Based on these findings, a number of research questions were formulated to serve as a reference for exploring issues that remain underexamined, particularly in the areas of corruption, asset misappropriation, and financial statement fraud.

Table 2. Question for Future Research

Fraud	Question
Corruption	1. How can cultural factors and social norms be strengthened or transformed to prevent the rationalization of corruption at both societal and organizational levels?
	2. How do interactions between internal and external factors strengthen or weaken the influence of fraud elements on corrupt behavior in the public sector?
	3. How are patterns of collusion between government officials and external parties formed, and what strategies are effective in detecting and disrupting these collusion networks at an early stage?
Asset Misappropriation	1. How do organizational culture and ethical leadership moderate the relationship between financial pressure and the propensity for asset misappropriation?
	2. In the context of SMEs, can whistleblowing mechanisms and digital monitoring systems reduce opportunities for collusion and asset misappropriation?
	3. How do the interactions among religiosity, social norms, and internal control shape intentions and behaviors related to asset misappropriation?
Financial Statement Fraud	1. How do cultural and regulatory contexts in developing countries moderate the relationship between fraud theory factors and the occurrence of financial statement fraud?
	2. How effective are whistleblowing systems in preventing financial statement fraud?
	3. Does the implementation of blockchain technology in financial reporting significantly reduce opportunities for financial statement fraud?

Source: Data Processed, 2025

V. Conclusion

Implications this paper finds that the research of fraud causes has come along in leaps and bounds during 2016–2025, both in relation to the quantity of publications and for topics reviewed. The results reveal that the study of fraud has grown multidisciplinary, analyzing from accounting and finance perspectives as well as governance and organizational behaviour views. The increase in the number of publications demonstrates that fraud is still an issue and it is of considerable importance for both academics and practitioners.

Three categories of the causes of fraud were determined from the clustering results. Corruption in most cases is influenced by the dimensions of weak governance, weak oversight effectiveness, economic stress and personal behavioral factors. The main reasons behind Asset misappropriation are the weak internal control, opportunity and lower ethical organization. In contrast, pressure to perform as well as the ability for managers to influence financial reporting play a major part in financial statement fraud with deficiencies in audit and fraud detection capabilities. These results provide evidence that fraud is a multi-faceted problem that occurs as an interplay of personal, organizational, and environmental factors.

The current study has several limitations that need to be acknowledged. First, the information of data sources included that only literature from the Scopus was included in this study due to neglecting related studies in other databases. Second, the search was restricted to articles that with full-text access and this might have lead to a decrease in the potential of literature reviewed. Third, it should be noted that the bibliometric analysis focuses on the mapping of trends and thematic associations rather than a detailed assessment of methodological quality of the individual study. Hence, future studies should upscale the sources of data and integrate bibliometrics with more profound qualitative analysis and also examine cross-country, including technological aspects of foul-proofing activities.

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