ABSTRACT

This study was aimed to conduct a literature study on research related to fraud. The research method used is to use the literature study method by using the vote-counting model. This research would identify papers relating to fraud that has been obtained from various existing databases. Next, the researcher classified the paper by classifying the focus of research at the paper stage in fraud prevention, detection, investigation or remediation. The results of this study were recommendations for researchers, in terms of what is still open as material in research related to fraud.

Keyword: Fraud, Vote-counting, Review

INTRODUCTION

The occurrence of fraud in private companies or the public sector is currently symptomatic in various ways. There are millions of businesses and government organizations operating throughout the world that have been vulnerable to fraud committed by employees or managers who manage these entities (Dorris, 2018). Fraud and fraud are now considered as one of the main problems and become a serious challenge for all types of organizations, both business and public entities (Law, 2011; Perri and Brody, 2012). To survive, every organization must be able to detect the problem of fraud and deal with it wisely (Button et al., 2011).

The total losses due to fraud in various sectors that occur in Western Europe are around $ 200,000, in South Asia around $ 100,000, in Eastern Europe and Central Asia around 4150,000, in Latin America $ 193,000 in the Middle East and North Africa around $ 200,000 and in Canada around $ 200,000 according to the report from Report to The Nations in 2018 published by the ACFE. (Dorris, 2018). The fraud in the form of corruption in the current government is also an important problem that cannot be underestimated in Indonesia. Some of the news included the arrest of 18 regional heads in Indonesia who were only 17 months as regional heads (Gabrillin, 2018), of course, raising concerns about the conditions of fraud that occurred in the public sector. What is even more concerning is that the statement delivered by the Minister of Home Affairs also stated that during 2014 until 2017 there were 313 Regional Heads affected by corruption cases (Kuswandari, 2017).

To overcome this fraudulent practice, various researchers have conducted a series of studies relating to fraud. Fraud studies have been carried out by researchers both inside and
outside the country. Various researches on the theme of fraud generally explain the factors that influence fraud, fraud prevention and fraud detection methods. Some of the studies related to fraud include the factors that influence the level of corruption such as research (Heriningsih, 2013), (Wulandari, 2015) (Yuliyana & Setyaningrum, 2016) which examines the influence of audit opinion and regional financial level at the level corruption in local government. While research on determinants of fraud is also carried out by researchers from abroad such as (Kelvin & Arnold, 2015); (Anuar et al., 2014); (Bonner, Palmrose, & Young, 1998). Likewise, research relating to fraud prevention was also carried out by several researchers in Indonesia such as (Widaningsih, 2015) who examined the Effect of Internal Auditor Professionalism on Fraud Prevention and Detection. Likewise, research on fraud detection methods using the benefit method examined by (Efitasari, 2013) and from abroad (Perols, 2011); (Yue, Wu, & Shen, 2009) and (Kaminski, Sterling Wetzel, & Guan, 2004).

Trend and development in fraud research are still developing to find the best format to be able to detect, prevent, cope with and follow up on the impact of fraud (Dorminey, Fleming, Kranacher, & Riley, 2012). At present, the latest development in research synthesis is by integrating, quantifying the knowledge gained from empirical studies that have been carried out on certain themes using meta-analysis. Research using the method vote-counting is a study that simply calculates and finds all studies on the same topic and then calculates all studies that significantly influence or not on a topic. One study that uses the vote-counting method to look at various methods of fraud detection is research from (Abbasi et al., 2018).

Research conducted by previous researchers including research (Hastuti & Gozali, 2015) which revealed difficulties in detecting fraud in financial reporting. Research (Hastuti & Gozali, 2015) explains that the level of corporate liability, liquidity, ROA, independence of the board of directors and internal control systems does not affect the intention to manipulate financial statements. Also, research from (Kanapickiene & Grundiene, 2015) which tries to identify financial ratios that can detect fraudulent financial reporting. While research (Rivest, 2017) examines the reporting mechanism that can reduce the occurrence of fraud. In this paper, Rivest concludes that an effective reporting mechanism must be followed by the existence of an effective whistleblowing system to ensure the absence of fraud (Sinaga & Sidik, 2019).

Because a lot of research on fraud has been done, therefore in this study, researchers conducted a literature review using the vote-counting method as a method in this study. To see and analyze the results of existing empirical research on fraud committed in the public or private sector. Which later can be used as reference material for further researchers about the next steps that can be investigated and carried out to reduce fraud.

METHOD

The research method was carried out by reviewing existing publications related to fraud / fraud. The literature review method in this study was the count review method. The Count Review method, also known as a Counting Review, is a literature review method that evaluates the strengths of the study results compared to the overall results of the study under study (Cwikel & Hare, 2000). The researcher reviews several publications related to fraud both in the public sector and the private sector. The purpose of this review process is to be able to understand, analyze and reveal how the development of research related to fraud has existed so far; regulate, classify and categorize publications according to topics and themes that focus on
fraud; and provide input on new research agendas based on research gaps that have been identified from existing literature.

This study reviewed papers obtained from popular databases such as Emerald, Ebscohost, ScienceDirect, Elsevier, Wiley, Google Scholar by using keywords (or a combination of keywords) such as fraud, fraud, and fraudulent financial reporting. The process of reviewing the manuscript is done in the following manner: keyword articles published - make a choice of the relevant paper - choose the paper that is suitable for the purpose of the study.

This study would review the paper and classify the paper with the theme of fraud or fraud into several classifications including: how many articles per year published, the classification of the independent variables used, the classification of the dependent variables studied, the classification of frauds is that research including the detection, prevention, investigation or remediation of fraud (Dorminey et al., 2012), and the classification of papers in this study including the use of the Galliers taxonomy, namely the classification of forms of research whether positive or interpretive (Choudrie&Dwivedi, 2005).

Review methods in this research can be described in a diagram as follows (Gangwar, Date, & Raoot, 2014): paper selection based on keywords - looking for articles on the database - making choices on existing papers - identifying types of research - developing understanding of the research stages about fraud - building and developing research trends on fraud in the public sector or in the private sector - writing research results and conclusions.

The following are the stages in this study:

In this study, researchers would identify research based on the taxonomy found by Galliers. The classification found by Galliers 1992 is widely used for research in the field of Information Security which describes laboratory experiments, field studies, surveys, case studies, proof of theory, forecasting, action research, subjective / argumentative, dialectic investigations, grounded research and ethnography. Galliers divides the method into two major parts, namely positivistic and interpretivistic. The following is a table of taxonomy in (Choudrie&Dwivedi, 2005).
RESULT AND DISCUSSION


The researcher has conducted a survey of 127 articles from 2000 to 2018 consisting of articles sourced from journals and proceedings both inside and outside the country. From the whole article the researcher selects articles from journals or comes from student theses. The result is that there are 100 journals from trusted national and international journals and proceedings.

The following are the details of the journal sources studied: The entire downloaded paper 127 papers reduced by thesis / non-scientific journals 27 papers - Paper studied 100 papers
Graph 1. **Source of paper studied**

Source: secondary data processed (2019)


Whereas for national proceedings articles came from the National XIX Accounting Symposium in Lampung, and the National Innovative Research Seminar. Whereas for proceedings originating from abroad originating from procedia computer science, proceeding of management, procedia economics and finance, procedia social and behavioral sciences from elsevier, workshops on legal ontologies and web base legal information management, and the Pacific Asia Conference on Information System proceedings. The number of publications per year that have been searched by researchers is shown in the following graph:

**Figure 1 Number of Publications by Year**
From the graph above, it can be seen that the development of research related to fraud was increasing. The number of researches is mostly carried out by researchers in 2016. And the number of studies that are above 10 studies per year begins in 2014 until 2018. In 2000 to 2004 the number of studies published and monitored by researchers amounted to 1 study per year. Likewise, for 2010 there were only 1 paper related to fraud that had been carried out.

ANALYSIS: From these data, it can be analyzed that research on fraud has been carried out by many researchers and began to develop in 2008 and began to develop even greater in 2014. This can be seen as a development because more and more cases of fraud have occurred. This was also expressed by Modugu in his research that in recent years, professionals have believed that the development of accounting fraud will increase in the next few years (Modugu, 2012).

From the whole study, the following is a distribution of themes published by each researcher. The following is the distribution of the theme of the article about cheating that has been traced by researchers.

**Graph 2 Research Themes**

From the graph above it can be seen that the research theme that was least carried out by researchers was the theme of fraud remediation. Fraud remediation investigated by (Farber, 2004) conveys the impact of institutional ownership on fraud in companies that focuses on corporate governance to get out of fraud problems. While the most sought-after theme by researchers was the theme of fraud detection which occupies 44 paper titles during 2000 to 2008. The themes of fraud determinants were 33 paper titles and fraud investigation totaling 21 paper
titles and fraud prevention in 4 paper titles. Research that examines fraud prevention or about prevention of fraud also conducted by several researchers in Indonesia such as (MiminWidaningsih, 2015) who examined the Effect of Internal Auditor Professionalism on Fraud Prevention and Detection. This research includes fraud research in the public sector because of conducting research or surveys on State-Owned Enterprises headquartered in the City of Bandung.

From the results of the above research it can be seen that the researchers were more interested in conducting research on fraud in the detection section. Where what is meant by fraud detection is the implementation of several indicators that show the organization to detect the initial signs of fraud (Sow, Basiruddin, Mohammad, Zaleha, &Rasid, 2017).

Fraud detection can be done with various methods. Several studies have examined what tools can be used to detect fraud. Some studies show these things. Among them are research from (Abdallah, Maarof, &Zainal, 2016) and (West & Bhattacharya, 2015). Abdallah presents data on the use of fraud detection devices in the areas of banking, insurance, telecommunications and internet marketing fraud. The most commonly used fraud detection techniques are Artificial Neural Networks (ANN), Support Vector Machines (SVM), rule induction, decision trees, logistic regression and meta heuristic techniques.

Unlike Abdallah, West investigated fraud detection in several different areas, namely fraud areas in banking, companies and insurance. Where each has a cheating area that is typical of each company. The figure below shows the cheating area that is most often done in private sectors according to (West & Bhattacharya, 2015)

Figure 2 Corporate Fraud Area

![Corporate Fraud Area](image)

Source: taken from research (West & Bhattacharya, 2015)

In his research, West concluded that each fraud detection technique such as (logistic regression, support vector machine, neural network, and decision tree) have a high enough ability to learn and adapt to be highly effective to the evolving tactics of fraudsters.

After a table of annual fraudulent studies, the following will be shown about the distribution of research themes per year.

Figure 3 Distribution of Themes Per Year

![Distribution of Themes Per Year](image)
From the graph above it can be seen that the theme of fraud detection is dominant in 2008, 2014, 2015, 2016, and in 2017. The highest theme of fraud detection occurred in 2014 and 2015. While the theme which was only conducted once by researchers occurred in 2005, namely the theme of cheating remediation. The theme of fraudulent determinants and fraud investigations is in second and third place in 2014 to 2018. The theme of fraudulent determinants is second only to fraud detection. The determinants of fraud that have been studied have many aspects. Among the determinants of fraud is about factors that influence the level of corruption such as research (Heriningsih, 2013) which examines the influence of audit opinion and the level of regional finance on the level of corruption in local governments. Furthermore, cheating research was also conducted by (Wulandari, 2015), namely on the influence of accountability of local government financial reports and regional financial performance on the level of regional government fraud, where the accountability of financial statements was seen in audit opinions, SPI weaknesses and compliance with the Act, while the regional financial performance studied is the independence ratio, activity ratio and growth ratio of the local government. Another study was conducted by (Yuliyana & Setyaningrum, 2016) on the Effect of E-Government Implementation and Accountability on Corruption Perceptions in Ministries / Institutions. This research takes the object of research in ministries / institutions not in the local government. Research on determinants of fraud carried out from abroad, including those conducted by (Xu, Zhang, & Chen, 2018) who examined the age of the board of directors affecting the existence of fraud in the company. In addition, research on the determinants of fraud is also carried out by (Yang, Jiao, & Buckland, 2017) who examined the influence of corporate governance on fraud in the company.

The theme of fraud detection is in the highest position possible due to the increasing number of frauds occurring both from the private sector and the public sector. Among the frauds that occurred in 2000 to 2014 were fraud that occurred with Enron and WorldCom. This triggered the researchers to detect fraud as an effort to prevent and overcome fraud that resulted in losses. Several studies examining fraud detection were conducted by Efitasari who conducted research on fraud detection methods using the Beneish m-score method examined by (Efitasari, 2013). Other research examining fraud detection methods is also done by (Beneish, 2015). Almost all fraud detection research using methods of private company objects. As is the case with research by (Wiralestari, 2017) which examines fraud detection using investigative forensic accounting and accounting that can detect fraud in private companies or public sector organizations. Another study was conducted by (Alamsyah & Rahardjo, 2013) who examined fraud detection using social network analysis. Overseas research on fraud detection methods is also more diverse such as research by (Adrian, 2015) which detects fraud using data analysis,
research by (Dalnial, Kamaluddin, Sanusi, & Khairuddin, 2014) that detects fraud by using financial statement analysis and research by (Meenatkshi & Sivaranjani, 2016) who examined fraud detection using data mining methods. There are still many studies on fraud detection with various methods such as (Yue et al., 2009) detection using logistic regression, and (Zainudin & Hashim, 2016) which examine the use of ratios to detect fraud.

The researcher divides the type of research with the classification of the taxonomy of Gralliers (Choudrie & Dwivedi, 2005) which divides the research into two major groups namely positivistic and interpretative. The following are the results of calculations based on the type of research:

From the results of these calculations it can be seen that the type of positivistic research is quite dominant among the researchers. This can be seen from 100 papers, 72 papers have been carried out using positivistic methods. This type of positivistic research is a type of research that sees that there is truth out there and to be able to understand the world we need to predict and control it all. According to positivists, the world is operated by the law of cause and effect which we can learn by using a scientific approach (Sekaran & Bougie, 2016) and the type of interpretative research that is contrary to positivity.

The researcher looks more deeply at each type of research, the following is a breakdown of the types of positive and interpretive research:

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The researcher looks more deeply at each type of research, the following is a breakdown of the types of positive and interpretive research:
Of the overall positivist research, the most widely used theorem proof research methods, followed by field experiments, simulations, surveys, laboratory experiments and case studies. The proof theorem is widely used for research with themes of fraudulent determinants to prove the theory of fraud triangle, or diamond fraud and the latest is the pentagon fraud. While field experiments are widely used by research with the theme of fraud detection. While other research methods are used for various research themes.

From the results of research on the type of research it appears that the method most often used by researchers is proof theorem and field experiments because it is the method that is most preferred by researchers. The theorem proof method can be done using SPSS, SEM or eviews analysis with technical analysis is logit regression and simple or multiple linear regression. While field experiments are used to test several detection methods for cheating behenish and altman methods, Bayesian methods, non-financial measurement methods, data mining and so on.

Current methods are simulation and survey. This method is widely used for researchers who want to know the opinion of a group of people about fraud. With student respondents who have taken certain criteria such as having taken auditing or financial courses to see their reaction to the questions provided by the researcher.

From the results of the research in the form of object data for cheating research, it can be seen that the most object of research in fraud research is public companies. Public companies mean companies that have published their financial statements to the public. Where it is considered as a company disclosure to the public that can be trusted.
Review on Fraud Research: A Study of Vote Counting
Sari, Widagdo, Gantyowati

and external accountants are used in research to find out their characteristics (including ability, education level) to detect fraud or to ask for opinions about fraud.

Of all public companies, the most studied are public companies in general, financial companies, manufacturing and non-financial companies.

Figure 7 Types of Public Companies

Source: secondary data processed (2019)

Researchers analyze that in addition to public companies, companies that have a large opportunity to commit fraud are financial and manufacturing companies. So that many researchers take in the area.

The researcher also looked at the composition of the study whether in the private or public sector, the following is a description:

Figure 8 Types of Entities

Source: secondary data obtained (2019)

From the results of the above research it can be seen that cheating research in the public sector is still low 19 papers from the entire paper about cheating. This happens because data in the public sector is more difficult to prove and data is taken because it relates to trust funds managed in the public sector.

CONCLUSION

In this study the researchers concluded that the theme or topic often raised by researchers about fraud is about fraud detection. Detection of fraud investigated included a variety of fraud areas that were subjectively expressed by each researcher. Fraud detection is among others in the area of fraud electronic commerce system (credit cards) (Abdallah et al., 2016), bank fraud, insurance fraud, securities and commodities fraud, and other financial fraud investigated by (Ngai, Hu, Wong, Chen, & Sun, 2011). In addition to the area of fraud in detecting this research, it was also concluded that the techniques for detecting fraud could be done in a variety of ways. Some techniques for fraud detection can be data analytics methods (Adrian, 2015), anonymous reporting channels (Johansson & Carey, 2016), co evolutionary anomaly algorithms (Wu, John, & Banzhaf, 2008), financial ratios (Kaminski et al., 2004) and (Kanapickiene & Grundiene, 2015b), bayesian fraud risk formula (Srivastava, Mock, & Turner,
Review on Fraud Research: A Study of Vote Counting
Sari, Widagdo, Gantyowati

2009), integrated language model (Liao & Chen, 2014), benefit model (Sergius, 2015) and (Hantono, 2018), forensic accounting and investigative audits (Wiralestari, 2017), non financial measures (Brazel, Jones, & Zimbelman, 2009), financial statement analysis (Dalnial et al., 2014), and data mining (Ngai et al., 2011).

This study also concluded that the object of research that is often done is for go public companies, and the observed area of the entity was private company rather than public entity such as government. From many public companies studied by financial and manufacturing companies that are often used as the object of research. It can be concluded that in the future research on the theme of fraud in the public sector such as government and non-government organizations will be an interesting topic.

In the other side, the theme related to fraud predicted by the author will be a trend in the future is the development of fraud detection using a variety of techniques and methods that are increasingly developing. This is because many studies state that in each detection method still has vulnerabilities and each model cannot be used for various fraud areas. While the area of the research entity relating to fraud in the future is still a private area and is followed by a more developed public sector.

Researcher provide suggestions for further research to further explore research on fraud detection in the government sector or in Non-Government Organizations. Although the foundation of the government and NGO sectors is for the benefit of the community, these entities cannot be separated from the potential for fraud.

In addition, the researcher also provides suggestions to explore more about the possibility of conducting research related to various methods of fraud detection and the level of accuracy. The fraud detection model that currently has several uses technology in detecting fraud. And this can be further improved, such as the use of data mining in fraud detection. This is important because it will help companies and public entities in detecting and early detection of fraud that occurs in each entity.

Beside of the deepening of fraud detection methods, further research can also explore the follow-up of fraud. Such classification has been done by (Dorminey et al., 2012) in the form of fraud prevention, detection, investigation and remediation. Research related to fraud remediation is still very limited. It is hoped that the existence of research on cheating remediation can enrich the repertoire of literature study research on fraud.

This study has limitations with a short research time, researchers hope if more time will be able to obtain more paper to study. In addition, the classification of research phases of fraud only uses the classification obtained from (Dorminey et al., 2012), which is related to fraud prevention, investigation, and remediation.

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Review on Fraud Research: A Study of Vote Counting
Sari, Widagdo, Gantyowati


Review on Fraud Research: A Study of Vote Counting
Sari, Widagdo, Gantyowati


