Pakistan Jo

# Pakistan Journal of Life and Social Sciences

www.pjlss.edu.pk



https://doi.org/10.57239/PJLSS-2025-23.1.00599

#### RESEARCH ARTICLE

Web of Science

# Preventing Fraud and Strengthening Integrity: A Case Study From North Sumatera, Indonesia

Ramadona Simbolon

Department of Accounting, Universitas Islam Sumatera Utara

ARTICLE INFO	ABSTRACT			
Received: Jan 15, 2025	The purpose of this research is to determine the influence of the fraud triangle			
Accepted: Mar 13, 2025	elements and integrity on fraud and to investigate the factors affecting integrity as well as to discover strategies to strengthen fraud prevention and			
<i>Keywords</i> Fraud Triangle	integrity in Indonesia. This study concentrates on North Sumatra Province, which has the maximum number of fraud cases in Indonesia in comparison to other provinces. Data were gathered by distributing questionnaires to individuals who were considered to possess knowledge and authority in the			
Integrity	field of finance. Responses to the questionnaire were acquired from 179 respondents, and the data collected served as the research sample. Multiple			
Family	regression analysis was implemented in phases to analyses the data. The			
School	research results indicate that the elements of the fraud triangle—pressure, opportunity, and rationalization—have a positive and substantial influence on			
Social	fraud, whereas integrity has a negative impact on fraud. This research also			
Fraud	indicates that integrity is significantly and positively influenced by familial, educational, and social environments. This research offers intriguing suggestions for enhancing the prevention of fraud and the preservation of			
*Corresponding Author:	integrity in Indonesia. It does so by regulating the components of the fraud triangle through psychological assistance programs, the implementation of			
ramadona@fe.uisu.ac.id	whistle-blowers through anonymous reporting, the reinforcement of integrity, and strong law enforcement. Additionally, the development of individual integrity should be implemented in the family environment from a young age and furthered in educational and community environments.			

#### INTRODUCTION

Fraud is a deliberate mistake or concealment of material facts encouraging others to take deliberate action to lose other people's assets or money through fraud or other immoral means (ACFE, 2012). Fraud in the world is increasing every year with a greater number of losses (PwC, 2020). Based on data from the Association Certified Fraud Examiner (ACFE), Fraud in the world in 2018 increased to 2690 cases from 2016 as many as 2,410 cases (ACFE, 2018). Fraud does not only occur in the business sector, but also in the public sector. Even today the most fraud is found in the public sector (ACFE, 2018). Indonesia is also a country in the category of the highest fraud in the world, with the corruption perception index value in the range of 34-38 from 2018-2020 (Transparency International, 2020). ACFE Indonesia (2019) found an increase in the number of fraud in Indonesia compared to those in 2018. This value gives Indonesia a low rank among other countries. Fraud in Indonesia has also spread to the regions and involves not only state officials, but also middle-level management and even state civil servants.

Cressey, Donald (1950) in the fraud triangle theory finds that fraud is caused by three factors: pressure, opportunity and rationalization. These findings are supported by (Cohen et al., 2010; Dellaportas, 2013; Ghafoor et al., 2019; Lin et al., 2015; Nakashima, 2017). In contrast to (Chen et al., 2016; Skousen, C.J., Smith, K.R and Wright, 2009; Suyanto, 2009) it is considered that only pressure and opportunity affect fraud. Meanwhile, a study conducted by (Spicer, 2016) indicates that only one element of the fraud triangle has an effect on fraud, namely opportunity. Even a study in Indonesia

by (Rizani & Respati, 2018) shows that the fraud triangle element does not play a role in fraud prevention. This is evidenced by the fact that fraud in Indonesia is still significant, despite the efforts to prevent fraud, including the establishment of regulations to strengthen internal control.

Upper Echelon theory states that characteristics play an important role in choices in organizations (Hambrick & Mason, 1984). A person who possesses integrity is likely to be honest, trustworthy, and high-performing, which will enable him or her to avoid engaging in fraudulent activities (Mathenge, 2014). Integrity is a critical value in the prevention of fraud and has a negative correlation with its occurrence (Hanim et al., 2017). The fraud triangle element does not influence the occurrence of fraud in an organization if integrity is present in a person. Conversely, if integrity is absent in a person, the fraud triangle element will influence the occurrence of fraud in an organization.

The government has formulated and established several policies to prevent fraud, but fraud activities in Indonesia are still high(Maria & Gudono, 2017), bahkan melibatkan penyelenggara negara seperti Gubernur dan Legislator (KPK, 2019). Based on data from the Corruption Eradication Commission, several fraud cases occurred in North Sumatra Province were corruption of grant funds and social assistance of the North Sumatra Provincial Government, giving gifts or promises related to the ratification of changes to the Regional Revenue and Expenditure Budget of North Sumatra Province, approval of accountability reports North Sumatra Provincial Government and Rejection of the use of interpellation rights by the North Sumatra Provincial DPRD (KPK, 2017a).

The Indonesian government has also been striving to strengthen the formation of integrity through the integration of character education into the curriculum, the learning process, and the school environment, as well as involving parents in the character formation of children. However, the integrity index in Indonesia is still below the set target (KPK, 2023). Previous research has revealed that integrity is influenced by the environment, namely family, school, and social settings (Talwar et al., 2022; Talwar & Crossman, 2011, 2022). Parents and schools play the role of primary agents with significant influence in shaping children's behaviour (Talwar & Crossman, 2011). Educational institutions also function as intellectual communities that have a significant impact on individual behaviour (Torroba Diaz et al., 2023). Additionally, the social environment, which involves interactions between individuals and peers and the community, also influences the formation of behaviour (Dhiman, 2023). The positive values upheld by friends and the community will further strengthen individual ethical behaviour.

Fraud in Indonesia can be likened to a virus that has spread to various sectors. Various studies have been conducted to identify fraud prevention strategies involving elements of the fraud triangle, such as (Maria & Gudono, 2017) that used a quantitative approach in their research, but did not include integrity as an important indicator in fraud prevention efforts. Meanwhile, (Mustafa Bakri et al., 2017) have integrated integrity as one of the fraud prevention indicators, but their research has not deeply explored the factors that shape integrity. Peltier-Rivest (2018) developed a fraud prevention model using a qualitative approach, but it only focused on the elements of the fraud triangle without extending the analysis to the aspect of integrity. Therefore, this research aims to investigate fraud in Indonesia by considering the elements of the fraud triangle and integrity, and then developing a comprehensive fraud prevention model. Thus, this research aims to investigate fraud in Indonesia with a more holistic approach, which not only considers the elements of the fraud triangle but also incorporates integrity as a key component, and then develops a comprehensive fraud prevention model.

#### LITERATURE REVIEW

#### 2.1 Fraud Triangle

In order to prevent and mitigate fraudulent practices, it is imperative to comprehend the factors that can lead to fraud (fraud/cheating). The Fraud Triangle theory(Cressey, 1950)can be employed to elucidate fraud. Opportunity, pressure, and rationalization are the three conditions that Cressey identifies as typically leading to fraud in organizations(Dorminey et al., 2010). Although not visible, pressure and rationalization are important factors in the occurrence of fraud. Pressure can take the form of gambling addiction, drug abuse, and negative influence from family or friends. Rationalization, on the other hand, is the process of justifying fraudulent actions, both before and after the fraud is committed. Unlike pressure and rationalization, opportunity is an observable

element, particularly related to weaknesses in the organization's internal controls. Auditors can identify these weaknesses, which include, among others, lack of training and supervision, inadequate policies and procedures, or the absence of effective anti-fraud programs(Dorminey et al., 2010). Long (2009) emphasized that a weak internal control system increases the risk of fraud. Although a strong system does not guarantee the complete prevention of fraud, it can reduce the opportunities or make it more difficult for individuals to commit fraud. Of the three components of the fraud triangle, rationalization is the most difficult to measure because it is closely related to the character and behaviour of the individual (Skousen et al., 2009). Management often responds to fraud issues by assuming that fraud occurs due to common fraudulent practices. However, this approach is not necessarily effective (Dellaportas, 2013).

The fraud triangle theory, which consists of pressure, opportunity, and rationalization, has been extensively tested to determine its effectiveness in predicting and preventing fraud. Dellaportas (2013) through interviews with fraud perpetrators affirms that these three elements are the causal factors of fraud occurrence. Other research by Maria & Gudono (2017); Said et al. (2018); Simbolon et al. (2019) also supports this, showing that pressure, opportunity, and rationalization positively contribute to the occurrence of fraud. Therefore, effective internal controls, designed to reduce opportunities, become crucial in preventing fraud. (Cendrowski & Martin, 2008) suggest that eliminating one of the elements of the fraud triangle can prevent or at least reduce the likelihood of fraud occurring. Choo and Tan (2009)study on cheating behaviour among students' shows that each element of the fraud triangle affects the likelihood of someone committing fraud. These findings underscore the importance of understanding the motivations behind fraud, an insight that is beneficial for auditors in conducting fraud risk assessments. By considering the elements of the fraud triangle, auditors can enhance audit quality and conduct more accurate risk assessments (Mohd-Sanusi et al., 2015; LaSalle 2007.

# 2.2 Integrity and Fraud

Integrity has been the subject of extensive discussion worldwide, including in Indonesia. There are numerous concepts that pertain to integrity. In terms of etymology, the term "integrity" is derived from the Latin term "integer," which denotes whole (whole) or whole numbers, which are numbers that are devoid of fractions(Irianto et al., 2012). Integrity is an entity that is complete, not shared, and whose nuance of roundness or wholeness cannot be eliminated. However, the integrity or roundness of an entity is consistently preserved due to the robust interrelationships among its constituents, despite the fact that it is composed of numerous components. Integrity is a virtue, a positive aspect of human or organizational culture, that motivates its possessor to take positive actions and make decisions(KPK, 2017b).

When an individual within the organization is under duress, has opportunities, and is able to rationalize their actions, fraud will occur(Cressey, 1950). However, fraudulent behaviour will be avoided by an individual who possesses high moral, ethical, and integrity values (Mustafa Bakri et al., 2017). Individuals who exhibit integrity are perceived as possessing self-assurance, professionalism, competence, and trust. Thus, the possession of all of these attributes will serve as an inhibitor to their fraudulent activities (Mathenge, 2014). Erhard, Jensen, and Zaffron (2009) propose that an individual with integrity will endeavour to prevent the manipulation of budget and targets. Therefore, it is crucial for an organization to maintain integrity in order to prevent fraudulent activity (Hanim et al., 2017). Integrity is the primary component that underpins numerous successful anti-fraud strategies, as identified by Sabau, Sendroiu, and Sgardea (2013). In an organization, the likelihood of fraud increases as the integrity of an individual decreases (Chen et al., 2013). Integrity and fraud are negatively correlated, according to Hanim et al. (2017). Dikolli, Mayew, and Steffen (2013) also discover that executives who exhibit high integrity have the potential to enhance financial governance and mitigate financial statement fraud. Hanim et al. (2017)discover that asset misconduct, which is a form of fraud, is negatively correlated with integrity. Subsequently, integrity moderates the relationship between the fraud triangle and fraud. This implies that the fraud triangle does not influence fraud in the event that an individual possesses integrity. Conversely, the fraud triangle element will influence the occurrence of fraud in an organization if an individual lacks integrity. Consequently, integrity is a critical factor in the prevention of fraudulent activity in both public and private sector organizations.

### 2.3 Family, Education, Social Environment and Integrity

A healthy family environment that upholds the values of honesty plays an important role in shaping a child's character. Parents, as the primary agents of socialization, have a significant influence on the development of children's behaviour (Sianipar & Herman, 2024; Sines, 1987; Talwar & Crossman, 2022). The example set by parents in daily life, especially in terms of honesty, has a positive and long-term impact on the integrity of children. Children who grow up in a supportive environment and directly witness their parents practicing honesty tend to become honest and trustworthy individuals. On the other hand, children raised in an unhealthy family environment are at risk of experiencing moral and psychological disturbances (Bazarbaevna & Kizi, 2021).

Furthermore, schools or universities serve as secondary educational environments for individuals and have a positive impact on character formation through ethical development (Laila, 2024). These educational institutions are also intellectual communities that have a significant influence on individual behaviour (Torroba Diaz et al., 2023). The role of teachers and the curriculum is very important in instilling ethical and moral values, which ultimately results in a generation of young people with integrity (Bamkin, 2020). Therefore, schools and universities must equip students with the ability to face uncertain and risky environments through the development of ethical and moral values (Webber, 2022).

Moreover, the community environment is one of the most important institutions in the daily development of individuals (Miller, 2001). This environment includes the social interactions of individuals with their friends and the surrounding community (Dhiman, 2023). The better the values held by friends and the community, the greater the impact on an individual's ethical behaviour. The study conducted by Miao, Zhou, Sun, Xu, Zheng, Huang, and Xia (2020) revealed that social support from the environment significantly influences the improvement of individual behavioural and psychological health. Therefore, the social environment affects individual behaviour in daily life, and the interactions and values upheld by society play an important role in determining whether someone makes ethical decisions or not (Zlokazov, 2022).

#### **METHODOLOGY**

The Provincial Government of North Sumatra was the subject of this research in Indonesia. This province has the highest number of fraud cases in Indonesia, the largest Regional Revenue and Expenditure Budget (APBD), and the lowest integrity index in several of its regions in comparison to other provinces. The respondents of this study are the Heads of Departments, Department Secretaries, Heads of Sections, and Heads of Divisions in each North Sumatra Provincial Department. They are the leaders of the North Sumatra Provincial Government who possess the authority to utilize the budget in each work unit and possess knowledge of finance. The data analysis in this study was conducted using regression analysis to ascertain the impact of integrity and fraud triangle elements on fraud, as well as the impact of family, education, and social environment on integrity. Furthermore, this investigation offers a comprehensive examination of the enhancement of integrity and fraud prevention.

This research investigates the influence of fraud triangle elements and integrity on fraud, as well as identifying the factors that form integrity using multiple regression analysis. Based on the analysis results, the contribution of each element of the fraud triangle, including integrity, to fraud will be obtained. Before addressing the research objectives, assumption checks are conducted to ensure that the data can be used for hypothesis testing. The first assumption check in this study is to detect outliers and data normality. Outliers and normality will be checked univariately and multivariate Ly using box plots, Mahala Nobis distance, as well as skewness and kurtosis. If the analysis reveals outlier data and does not meet normality, it will be evaluated by performing data transformation.

The next assumption test is to detect multicollinearity, heteroscedasticity, and autocorrelation. Multicollinearity is examined by detecting the variation inflation factor (VIF) value. If all the research variables have a VIF value below 10, then the data is considered to meet the multicollinearity assumption. Next, heteroscedasticity and autocorrelation checks are detected by looking at the Breusch-Pagan and Wooldridge values. If the Breusch-Pagan and Wooldridge probability values are greater than 0.05, then the data is confirmed to be unaffected by multicollinearity and heteroscedasticity, allowing the data analysis to proceed to hypothesis testing. After all the data meet

the necessary assumptions, the analysis continues for hypothesis testing in two stages. The first stage aims to test the influence of fraud triangle elements and integrity on fraud. Next, the second stage is conducted to analyze the contribution of family environment, educational environment, and social environment to integrity. Hypothesis testing in this study was conducted using the multiple regression analysis method.

#### **RESULTS AND DISCUSSION**

Based on the questionnaires given to each respondent, the number of respondents' answers returned is 179. The following show the results of statistical calculations using multiple regression analysis and interviews to answer the objectives of this study.

# 4.1 Respondent Demographics and Assumption Test

The description of characteristics of respondents based on gender and level of education are presented in table 1 below.

Gender	Number	Percentage
Male	110	61.45
Female	69	38.55
Education		
Post Graduate	80	44.69
Graduate	99	55.31

**Table 1: Respondent Demographics** 

Source: Author's own elaboration

The characteristics of the respondents in Table 1 show that the majority of respondents in this study are male, with 110 individuals or 61.45 percent, while females account for 69 individuals or 38.55 percent. Furthermore, the characteristics of the respondents based on educational level reveal that there are 99 graduates or 55.31 percent and 80 postgraduates (master's and doctoral) or 44.69 percent. Therefore, in this study, the number of respondents with a graduate education level is higher than those with a postgraduate education level.

Furthermore, after conducting the assumption tests, no outlier data were found, either univariate or multivariate, and all data were confirmed to meet normality, so no data transformation was necessary. The data in this study is also stated to be unaffected by multicollinearity because the VIF values of all variables are less than 10. Based on the heteroscedasticity and autocorrelation tests, it was found that the Breusch-Pagan and Wooldridge probability values were greater than 0.05, thus the data in this study are stated not to violate the assumptions of heteroscedasticity and autocorrelation.

#### 4.2 **Hypothesis Testing Results**

The first hypotheses testing in table 2. (Regression Result of the Effect of Fraud Triangle Elements on Fraud) found that all elements of the fraud triangle element have a positive effect on fraud. The results of this study are in line with (Maria & Gudono, 2017; Muhtar et al., 2018). Based on the data about fraud, which is still significant in North Sumatra Province, it is seen that the pressure in North Sumatra is still high, thus increasing the motivation to commit fraud. This pressure can be obtained from family, superiors, society and the work environment. Furthermore, this also provides an overview of the weak internal control system, so that there are still many gaps in the existing rules and policies for committing fraud. In addition, this also provides an overview of the weaknesses in the internal control, leaving many gaps in existing rules and policies that can be exploited for fraud. Moreover, the rationalization for committing fraud is still high.

This can be seen from the perpetrators who are still able to smile while committing fraud. Hypothesis testing was also conducted to examine the influence of integrity on fraud. Statistical analysis shows that integrity has a negative effect on fraud. The higher the integrity, the lower the incidence of fraud. If leaders and employees have integrity, they will be able to prevent fraud. These results are similar with the research by Hanim et al., (2017)which states that integrity plays an important role in preventing fraud. This study is also consistent with the findings of Chen et al., (2013), which state that poor integrity will increase the occurrence of fraud. Integrity can prevent leaders and employees

within an organization from committing fraud. The high incidence of fraud indicates a low level of integrity among government officials, including regional heads and department heads. Fraud would not occur in the North Sumatra Provincial Government if leaders and employees had high integrity, despite the presence of pressure, weaknesses in the internal control system, and rationalization.

Table 2: Regression Result of the Effect of Fraud Triangle Elements on Fraud

Variables	Coefficients	T	p-value
(Constant)	23.744	3.391	0.001
Pressure	2.305	6.919	0.005
Opportunity	1.541	5.432	0.013
Rationalization	1.433	5.258	0.016
Integrity	-9.774	-9.307	0.000
Notes: <sup>a</sup> Dependent variable: Fraud			

Source: Author's own elaboration

Next, the second hypothesis test to determine the factors' influencing integrity is shown in table 3. (Regression Result of the Effect of Family, School, and Social Environment on Integrity) was also conducted using multiple regressions. The test results show that family, school, and social environment factors positively influence integrity. The results of this study are in line with previous research. The low integrity in the government environment indicates the low integrity values built in the family, school, and social environments. All of environments are less open in fostering positive communication related to the values of honesty, justice, equality, and democracy.

Table 3: Regression Result of the Effect of Family, School, and Social Environment on Integrity

Variables	Coefficients	T	p-value
(Constant)	19.322	4.147	0.001
Family Environment	8.457	8.405	0.000
School Environment	2.433	5.212	0.003
Social Environment	2.229	5.003	0.004

Notes: <sup>a</sup>Dependent variable: Integrity Source: Author's own elaboration

#### 4.3 DISCUSSION

Based on the first objective of this research, the results obtained show that there is a positive effect between the elements in the fraud triangle element on fraudulent acts. This result is in line with the research of Maria & Gudono, (2017); Muhtar et al., (2018). The high number of fraud cases in North Sumatra shows that there is still high pressure and rationalization in North Sumatra and a weak internal control system. These cases also show that law enforcement in Indonesia is not strong, so that it does not cause a deterrent effect on the perpetrators. The pressure among state officials has actually been agreed upon at the time of his appointment. The pressure is obtained from superiors asking for a contribution to become an official. Pressure is also obtained from the community with the existence of a money politic system, resulting in high political costs. Furthermore, the results of the study reveal that integrity has a negative effect on fraud. This result is in line with the research of Chen et al., (2013); Hanim et al., (2017) finding that increased fraud is due to weak integrity. Leaders and employees with integrity will strengthen their thinking not to commit fraud. Integrity prevents state officials from committing fraud, even though there is pressure from all circles. However, the high number of fraud cases shows the low integrity of state officials in Indonesia, especially in North Sumatra.

The second objective of this research is to analyse the factors that influence integrity, which include the family environment, educational environment, and social environment. The research results show that these three environments have a positive and significant impact on the formation of individual integrity. The family environment, in particular, plays a crucial role in shaping a person's character and integrity (Andrade et al., 2005). In general, the family is the first environment where individuals begin to learn the moral values, ethics, and behaviours that are considered right by society. Parents, as the primary authority figures, play an important role in teaching values such as

honesty, respect for others' rights, and responsibility for actions (Augustine & Stifter, 2015; Dunkel et al., 2015; Mojdehi et al., 2022; Ryder, 2017; Smetana, 2017). These values become the main foundation in the formation of an individual's integrity. Children who grow up in a family environment that emphasizes the importance of honesty tend to have stronger integrity in adulthood. Previous research also shows that children raised by parents with a high level of integrity tend to be more confident and committed to upholding integrity in their lives (Bureau & Mageau, 2014; Ma et al., 2015). Families not only teach moral values directly but also exert influence through supervision and involvement in daily decision-making. For example, discussions at home about responsibility or work ethics can strengthen a child's understanding of the importance of acting with integrity in various contexts, including at school, in the workplace, and in community life. Furthermore, the emotional support provided by parents, along with encouragement to do the right thing, boosts the child's confidence in maintaining their integrity. This allows them to develop strong moral principles, act ethically, and remain steadfast in their integrity even in high-pressure situations.

The educational environment plays a strategic role in the formation of individual integrity. Education, both formal and informal, serves as the primary means to instil moral values, ethics, and sustainable integrity behaviour (Zhao et al., 2023). Educational institutions, from elementary to higher education, not only serve as centres for the transfer of knowledge but also as spaces for the formation of students' character and moral attitudes (Aningsih et al., 2022). The influence of a positive educational environment significantly strengthens individual integrity. An educational environment that encourages the development of moral and ethical values plays an important role in shaping students' integrity. Formal education, through the implementation of a value-based curriculum, consistent discipline, and exemplary behaviour from educators, provides a space for students to internalize honesty, responsibility, and respect for others (Prajapati, 2014; Ramadhani et al., 2024). This process is reinforced through social interactions among students and the consistent application of rules, which helps build awareness of the importance of integrity (Jiménez & Estévez, 2017). Thus, a conducive educational environment significantly contributes to the strengthening of individual integrity, which is then reflected in their behaviour in society.

The social environment, which includes interactions between individuals and society, peers, and the workplace, has a significant influence on the formation of integrity. Integrity, defined as the quality of honesty and strong moral principles, is often shaped by the values, norms, and expectations prevalent in the social environment (Alempaki et al., 2021). A positive social environment plays a crucial role in strengthening individual integrity. Factors such as social norms, peer influence, workplace culture, and community involvement collectively contribute to the development of moral principles within a person (Arifin et al., 2018). A social environment that supports ethical behaviour and integrity values helps individuals maintain integrity in various contexts, including personal, professional, and social life (Talwar & Crossman, 2022). Thus, a positive social environment not only reinforces moral principles but also has a significant impact on the formation of individual integrity.

Based on the results of this study, strengthening fraud prevention efforts in Indonesia can be achieved by reducing fraud risk factors, namely pressure, opportunity, and rationalization, as well as by building individual integrity. Considering that the main motivation for fraud, which is 68%, is caused by financial pressure and luxurious lifestyle (ACFE, 2020), efforts to reduce this pressure can be made through psychological assistance programs and the implementation of a fair compensation system (Peltier-rivest, 2018). This step aims to prevent individuals from experiencing stress due to financial difficulties, which often trigger fraudulent behaviour. A well-designed psychological assistance program, which is easily accessible and guarantees confidentiality, will provide space for individuals who are potential fraudsters to openly express their problems (Peltier-rivest, 2018). Thus, this program not only strengthens individuals' mental resilience but also offers an effective non-criminal solution in preventing fraud.

To reduce the opportunity for fraud to occur, strategic measures can be implemented through the application of an anonymous reporting-based whistle-blower mechanism, reduction of discretion, and the implementation of red flag analysis. Based on the ACFE (2024), the majority of fraud cases are detected through whistle-blower mechanisms. However, many whistle-blowers are reluctant to

report fraud openly due to concerns about their safety and the confidentiality of their identities. Therefore, an anonymous reporting channel supported by technology is needed, so that whistle-blowers can convey information quickly and securely to the authorities without revealing their identities. Additionally, reducing opportunities can also be achieved by limiting the discretion of regional heads, thereby minimizing the space for making policies that could potentially be exploited as loopholes for committing fraud. This effort can be combined with the implementation of red flag analysis, which aims to detect indications of fraud in a work unit at an early stage. Thus, preventive measures can be taken to prevent the wider spread of fraud.

Efforts to control rationalization in fraudulent actions require strong and effective law enforcement. Good law enforcement can reduce individuals' tendency to rationalize fraudulent behaviour and break the cycle of impunity. (Chêne, 2009). Previous research shows that fraud rates tend to be lower in countries with an effective judicial system compared to countries with weak rule of law (Buscaglia & van Dijk, 2003; Dijk, 2008; van Dijk et al., 2022). In Indonesia, there are still practices of bribery and gratification towards law enforcement, including in correctional institutions, by fraud perpetrators. This phenomenon reflects that, substantively, structurally, and culturally, the legal system in Indonesia has not been effective in providing a deterrent effect to fraud perpetrators (Ramadhan, 2023). This condition also indicates systemic support for individuals in committing fraud (Ashforth & Anand, 2003). Therefore, reforming the legal system with an emphasis on integrity, accountability, and transparency is an important step to reduce fraud rationalization.

This study further reveals various effective strategies in developing positive values in children at a young age, including the implementation of effective communication within the family environment (Pertiwi et al., 2024). Efficient communication is a critical foundation for families to resolve value conflicts, discuss the repercussions of specific behaviours, and convey positive values. Parents' positive behaviour was identified as the most influential factor, as children are inclined to emulate the behaviour they perceive in their parents. Furthermore, other strategies, such as the assignment of responsibilities and the provision of rewards, also significantly contribute to the motivation of children to adopt positive values and implement them in their daily lives. Children who are assigned responsibilities and receive positive support from their parents exhibit an increase in self-confidence, independence, and a desire to actively participate in their environment.

An integrity-based classroom is an educational environment that encourages students to express their concerns openly, making ethical issues an integral part of daily conversations. Two main elements in creating an integrity-based classroom are the active role of teachers through their voice and efforts in promoting a culture of openness that actively supports ethical discussions (Kochoska & Gramatkovski, 2015). In this context, schools are designed to build a curriculum that emphasizes the importance of respecting the values of honesty, justice, and mutual respect (Bamkin, 2020). Teachers have the responsibility to integrate the values of integrity, equality, and justice into the learning process in every subject. The goal of this approach is to develop moral guidelines that help students act ethically, uphold integrity, and actively contribute in their relationships with family, friends, and their community. Moreover, this effort supports advocacy for public integrity in various aspects of community life. (UNESCO, 2024).

#### **CONCLUSION**

Research on the elements of the Fraud Triangle and integrity in Indonesia, particularly in the North Sumatra Provincial Government, is necessary to understand their influence on the occurrence of fraud. The importance of the role of integrity in preventing fraud opens up opportunities to expand the study, including investigating the factors that influence that integrity. Research results show that elements of the Fraud Triangle have a positive influence on the occurrence of fraud, while integrity has a negative influence on fraud. The high level of fraud in North Sumatra reflects the high levels of pressure, opportunity, and rationalization, as well as the low level of integrity. Additionally, this study reveals that family, school, and social environments have a positive influence on the formation of individual integrity, with all three environments playing a significant role in strengthening integrity values.

As a fraud prevention measure, the Indonesian government needs to implement strengthening programs such as psychological assistance services, the application of an anonymous whistle-blower reporting system, strict law enforcement, and the development of individual integrity. To support the

strengthening of integrity, positive communication between parents and children in the family environment needs to be improved. In addition, educational institutions should develop a curriculum that promotes appreciation for the values of honesty, empathy, and justice, which are then integrated by teachers into the learning process in every subject.

The first limitation of this study is the number of samples that still need to be expanded. Therefore, further researchers can develop research by multiplying samples of other local governments in Indonesia. Second, this research requires improvement by adding other factors that influence fraud. Therefore, future researchers can also strengthen their researches by examining more deeply the variables of law enforcement. Third, this study uses a questionnaire, so that respondents' answers can affect the results obtained.

#### **REFERENCES**

- ACFE. (2012). "Report To The Nations On Occupational Fraud and Abuse"., *Association of Certified Fraud Examiners*, pp. 1–76.
- ACFE. (2018). "Global Study on Occupational Fraud and Abuse Government Edition"., Association of Certified Fraud Examiners, 10, 80.
- ACFE. (2020). "Report To the Nations 2020 Global Study on Occupational Fraud and Abuse". *Association Certified Fraud Examination*.
- ACFE. (2024). "Association of Certified Fraud Examiners The Nations Occupational Fraud 2024: A Report To The Nations"., Association of Certified Fraud Examiners, pp. 1–106.
- ACFE Indonesia. (2019). "Survai Fraud Indonesia 2019"., Association Certified Fraud Examination Indonesia, 76.
- Alempaki, D., Fu, G., & Robey, S. (2021). "Lying and social norms: a lab-in-the-field experiment with children"., In *CeDex Discussion Paper No. 2021-01*.
- Andrade, S., Santos, D., Bastos, A., Pedromonico, M. R., Almeida-Filho, N., & Barreto, M. (2005). "Family environment and child's cognitive development: an epidemiological approach Susanne"., *Rev Saude Publica*, 39(4), pp. 4–9.
- Aningsih, Zulela, M. S., Neolaka, A., Iasha, V., & Setiawan, B. (2022). "How is the Education Character Implemented? The Case Study in Indonesian Elementary School"., *Journal of Educational and Social Research*, *12*(1), pp. 371–380. <a href="https://doi.org/10.36941/jesr-2022-0029">https://doi.org/10.36941/jesr-2022-0029</a>.
- Arifin, R. binti M., Wahab, N. B. A., Teh, K. S. bin M., & Otman, M. S. (2018). "Influence of Social Environment on Student's Behaviour"., *International Journal of Academic Research in Business and Social Sciences*, 8(7), pp. 930–939. <a href="https://doi.org/10.6007/ijarbss/v8-i7/4520">https://doi.org/10.6007/ijarbss/v8-i7/4520</a>.
- Ashforth, B. E., & Anand, V. (2003). "The Normalization of Corruption in Organizations"., *Research in Organizational Behavior*, 25(October), pp. 1–52. <a href="https://doi.org/10.1016/S0191-3085(03)25001-2">https://doi.org/10.1016/S0191-3085(03)25001-2</a>.
- Augustine, M. E., & Stifter, C. A. (2015). "Temperament parenting and moral development: Specificity of behavior and context"., *Social Development*, *24*(2), pp. 285–303. <a href="https://doi.org/10.1111/sode.12092">https://doi.org/10.1111/sode.12092</a>.
- Bamkin, S. (2020). "The taught curriculum of moral education at Japanese elementary school: the role of classtime in the broad curriculum"., *Contemporary Japan*, *32*(2), pp. 218–239. https://doi.org/10.1080/18692729.2020.1747780.
- Bazarbaevna, B. S., & Kizi, B. S. N. (2021). "The Role of the Family Environment in the Formation of Child Psychology"., *Academicia Globe: Inderscience Research*, *2*(5), pp. 197–201.
- Bureau, J. S., & Mageau, G. A. (2014). "Parental autonomy support and honesty: The mediating role of identification with the honesty value and perceived costs and benefits of honesty"., *Journal of Adolescence*, *37*(3), pp. 225–236. <a href="https://doi.org/10.1016/j.adolescence.2013.12.007">https://doi.org/10.1016/j.adolescence.2013.12.007</a>.
- Buscaglia, E., & van Dijk, J. (2003). "Controlling organized crime and corruption in the public sector"., *Forum on Crime and Society, 3*(1 and 2), pp. 3–83.
- Cendrowski, H., & Martin, J. (2008). "The Fraud Triangle"., In *University of Michigan* (pp. 41–46). <a href="https://doi.org/10.1002/9781119202165.ch5">https://doi.org/10.1002/9781119202165.ch5</a>.
- Chen, J., Cumming, D., Hou, W., & Lee, E. (2013). "Executive integrity, audit opinion, and fraud in Chinese listed firms"., *Emerging Markets Review*, *15*, pp. 72–91. https://doi.org/10.1016/j.ememar.2012.12.003.

- Chen, J., Cumming, D., Hou, W., & Lee, E. (2016). "Does the External Monitoring Effect of Financial Analysts Deter Corporate Fraud in China?"., *Journal of Business Ethics*, 134(4), pp. 727–742. https://doi.org/10.1007/s10551-014-2393-3.
- Chêne, M. (2009). "The impact of law enforcement interventions on corruption"., *Transparency International*, *September*. http://www.u4.no/helpdesk/helpdesk/guery.cfm?id=215.
- Choo, F., & Tan, K. (2009). "The effect of fraud triangle factors on students' cheating behaviors"., *Advances in Accounting Education*, 9, pp. 205–220. <a href="https://doi.org/10.1108/S1085-4622(2009)10">https://doi.org/10.1108/S1085-4622(2009)10</a>.
- Cohen, J., Ding, Y., Lesage, C., & Stolowy, H. (2010). "Corporate Fraud and Managers' Behaviour: Evidence from the Press"., *Journal of Business Ethics*, *95*(SUPPL. 2), pp. 271–315. https://doi.org/10.1007/s10551-011-0857-2.
- Cressey, Donald, R. (1950). "Criminal Violation Of Financial Trust (Issue May)"., Indiana University.
- Dellaportas, S. (2013). "Conversations with inmate accountants: Motivation, opportunity and the fraud triangle"., *Accounting Forum*, *37*(1), pp. 29–39. <a href="https://doi.org/10.1016/j.accfor.2012.09.003">https://doi.org/10.1016/j.accfor.2012.09.003</a>.
- Dhiman, D. B. (2023). "How Social Environment Influences People's Behavior: A Critical Review"., *Available at SSRN 4417597, April.* https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4417597.
- Dijk, J. Van. (2008). "The world of crime: Breaking the silence on problems of security, justice, and development across the world"., In *SAGE Publications, Inc.* https://doi.org/10.4135/9781483329789.
- Dikolli, S. S., Mayew, W. J., & Steffen, T. D. (2013). "Honoring One's Word: CEO Integrity and Accruals Quality"., *36 Th Annual Congress of the European Accounting Association*.
- Dorminey, J. W., Fleming, A. S., Kranacher, M. J., & Riley, R. A. (2010). "Beyond the Fraud Triangle"., *CPA Journal*, 80(7).
- Dunkel, C. S., Mathes, E. W., Kesselring, S. N., Decker, M. L., & Kelts, D. J. (2015). "Parenting influence on the development of life history strategy"., *Evolution and Human Behavior*, *36*(5), pp. 374–378. <a href="https://doi.org/10.1016/j.evolhumbehav.2015.02.006">https://doi.org/10.1016/j.evolhumbehav.2015.02.006</a>.
- Erhard, W. H., Jensen, M. C., & Zaffron, S. (2009). "Integrity: A Positive Model That Incorporates The Normative Phenomena of Morality, Ethics, and Legality That Incorporates The Normative". (FR 08-05).
- Ghafoor, A., Zainudin, R., & Mahdzan, N. S. (2019). "Factors Eliciting Corporate Fraud in Emerging Markets: Case of Firms Subject to Enforcement Actions in Malaysia"., *Journal of Business Ethics*, 160(2), pp. 587–608. https://doi.org/10.1007/s10551-018-3877-3.
- Hambrick, D. C., & Mason, P. A. (1984). "Upper Echelons: of Reflection The Its Organization as Top a"., *The Academy of Management Review*, 9(2), pp. 193–206.
- Hanim, H., Bakri, M., Said, J., & Mohamed, N. (2017). "Mitigating Asset Misappropriation Through Integrity And Fraud Risk Elements: Evidence Emerging Economies"., *Journal of Financial Crime*, 24(2). https://doi.org/10.1108/JFC-04-2016-0024.
- Irianto, G., Nurlita, N., Rosalina, K., & Firmanto, Y. (2012). "Integrity, Unethical Behaviour, and Tendency of Fraud"., *Jurnal Ekonomi Dan Keuangan*, 16(2).
- Jiménez, T. I., & Estévez, E. (2017). "School aggression in adolescence: Examining the role of individual, family and school variables"., *International Journal of Clinical and Health Psychology*, *17*(3), pp. 251–260. https://doi.org/10.1016/j.ijchp.2017.07.002
- Kochoska, J., & Gramatkovski, B. (2015). "Building a culture of integrity in the public sector in Coahuila"., *TEACHER International Journal of Education*, *10*(December), pp. 73–78. <a href="https://doi.org/10.1787/9789264283091-5-en">https://doi.org/10.1787/9789264283091-5-en</a>.
- KPK. (2017a). "Laporan Tahunan KPK 2017"., Komisi Pemberantasan Korupsi.
- KPK. (2017b). "Survei Penilaian Integritas 2017"., Komisi Pemberantasan Korupsi.
- KPK. (2019). "Laporan Tahunan KPK tahun 2019"., Komisi Pemberantasan Korupsi.
- KPK. (2023). "Laporan Tahunan KPK 2023"., Komisi Pemberantasan Korupsi, 5–24.
- Laila, N. N. (2024). "The Influence of the School Environment on the Formation of Primary School Students' Character"., *International Journal of Students Education*, *2*(2), pp. 184–189. <a href="https://doi.org/10.62966/ijose.vi.761">https://doi.org/10.62966/ijose.vi.761</a>.
- LaSalle, R. E. (2007). "Effects of the fraud triangle on students' risk assessments"., *Journal of Accounting Education*, 25(1–2), pp. 74–87. https://doi.org/10.1016/j.jaccedu.2007.03.002.

- Lin, C. C., Chiu, A. A., Huang, S. Y., & Yen, D. C. (2015). "Detecting the financial statement fraud: The analysis of the differences between data mining techniques and experts' judgments"., *Knowledge-Based Systems*, 89, pp. 459–470. https://doi.org/10.1016/j.knosys.2015.08.011.
- Long, M. L. (2009). "Internal Controls for Small Businesses to Reduce the Risk of Fraud"., *Intuit Academy*. <a href="http://longforsuccess.com/wp-content/uploads/2010/09/Good-Internal-Controls.pdf">http://longforsuccess.com/wp-content/uploads/2010/09/Good-Internal-Controls.pdf</a>.
- Ma, F., Evans, A. D., Liu, Y., Luo, X., & Xu, F. (2015). "To lie or not to lie? The influence of parenting and theory-of-mind understanding on three-year-old children's honesty"., *Journal of Moral Education*, 44(2), pp. 198–212. https://doi.org/10.1080/03057240.2015.1023182.
- Maria, E., & Gudono. (2017). "Empirical Test of Fraud Triangle Theory on Local Government"., *International Journal of Applied Business and Economic Research*, 15(4), pp. 233–248.
- Mathenge, G. D. (2014). "An Empirical study to Measuring Corruption and Integrity in Kenyan Police Agency: An Ethical Perspective"., *Public Policy and Administration Research*, 4(2), pp. 67–79.
- Miller, J. (2001). "Family and Community Integrity"., *The Journal of Sociology & Social Welfare, 28*(4). https://doi.org/10.15453/0191-5096.2764.
- Mohd-Sanusi, Z., Khalid, N. H., & Mahir, A. (2015). "An Evaluation of Clients' Fraud Reasoning Motives in Assessing Fraud Risks: From the Perspective of External and Internal Auditors"., *Procedia Economics and Finance*, *31*(15), pp. 2–12. <a href="https://doi.org/10.1016/s2212-5671(15)01126-0">https://doi.org/10.1016/s2212-5671(15)01126-0</a>.
- Mojdehi, A. S., Shohoudi, A., & Talwar, V. (2022). "Children's moral evaluations of different types of lies and parenting practices and across cultural contexts"., *Current Psychology*, *41*(8), pp. 5420–5433. https://doi.org/10.1007/s12144-020-01059-7.
- Muhtar, Sutaryo, & Sriyanto. (2018). "Corruption in Indonesian local government: Study on triangle fraud theory"., *International Journal of Business and Society*, 19(2), pp. 536–552.
- Mustafa Bakri, H. H., Mohamed, N., & Said, J. (2017). "Mitigating asset misappropriation through integrity and fraud risk elements"., *Journal of Financial Crime*, *24*(2), pp. 242–255. <a href="https://doi.org/10.1108/JFC-04-2016-0024">https://doi.org/10.1108/JFC-04-2016-0024</a>.
- Nakashima, M. (2017). "Can The Fraud Triangle Predict Accounting Fraud?: Evidence from Japan"., *Chiba University of Commerce*, pp. 1–37.
- Peltier-rivest, D. (2018). "A model for preventing corruption"., <a href="https://doi.org/10.1108/JFC-11-2014-0048">https://doi.org/10.1108/JFC-11-2014-0048</a>.
- Pertiwi, Y. W., Triantoro, M., Indriyani, D., & Al-Amin. (2024). "Character Education From an Early Age: Family Strategies in Developing Positive Values"., *International Journal of Social and Education*, *1*(1), pp. 73–83.
- Prajapati, A. R. (2014). "Role of Schools and Teachers for the Value of Honesty"., *International Journal for Research in Education*, *3*(1), pp. 9–11.
- PwC. (2020). "Fighting fraud: A never-ending battle PwC's Global Economic Crime and Fraud Survey 2020"., PWC Fraud Survey, 14. <a href="https://www.pwc.com/fraudsurvey">www.pwc.com/fraudsurvey</a>.
- Ramadhan, C. R. (2023). "Using rational choice theory to understand corruption"., *Integritas : Jurnal Antikorupsi*, 9(2), 171–182.
- Ramadhani, T., Widiyanta, D., Sumayana, Y., Santoso, R. Y., Agustin, P. D., & Al-Amin. (2024). "The Role Of Character Education In Forming Ethical And Responsible Students"., *IJGIE (International Journal of Graduate of Islamic Education)*, 5(2), pp. 110–124. <a href="https://doi.org/10.37567/ijgie.v5i2.3064">https://doi.org/10.37567/ijgie.v5i2.3064</a>.
- Rizani, F., & Respati, N. W. (2018). "Factors influencing the presentation of fraudulent financial reporting in Indonesia"., *Journal of Advanced Research in Law and Economics*, 9(1), pp. 254–264. https://doi.org/10.14505//jarle.v9.1(31).31.
- Ryder, Z. (2017). "Spare therod, the time-out, and every other kind of childhood punishment too: why parents ought not to punish their children (doctoral dissertation)"., In *University of North Carolina at chapel Hill, NC, US*.
- Sabau, E. M., Sendroiu, C., & Sgardea, F. M. (2013). "Corporate Anti-Fraud Strategies-Ethic Culture And Occupational Integrity"., *Cross-Cultural Management Journal*, *XV*(2), pp. 59–65.
- Said, J., Alam, M. M., Karim, Z. A., & Johari, R. J. (2018). "Integrating religiosity into fraud triangle theory: findings on Malaysian police officers"., *Journal of Criminological Research, Policy and Practice*, 4(2), pp. 111–123. <a href="https://doi.org/10.1108/JCRPP-09-2017-0027">https://doi.org/10.1108/JCRPP-09-2017-0027</a>.

- Sianipar, R., & Herman, S. (2024). "The Central Role of the Family in Educating and Shaping Children's Honesty"., *Asian Journal of Applied Education (AJAE)*, *3*(3), pp. 333–346. <a href="https://doi.org/10.55927/ajae.v3i3.9061">https://doi.org/10.55927/ajae.v3i3.9061</a>.
- Sines, J. O. (1987). "Influence of the Home and Family Environment on Childhood Dysfunction"., *Advances in Clinical Child Psychology*, *10*, pp. 1–54. <a href="https://doi.org/10.1007/978-1-4613-9826-4">https://doi.org/10.1007/978-1-4613-9826-4</a> 1.
- Skousen, C. J., Smith, K. R., & Wright, C. J. (2009). "Detecting and predicting financial statement fraud: The effectiveness of the fraud triangle and SAS No. 99"., *Advances in Financial Economics*, 13(99), pp. 53–81. https://doi.org/10.1108/S1569-3732(2009)0000013005.
- Smetana, J. G. (2017). "Current research on parenting styles, dimensions, and beliefs"., *Current Opinion in Psychology*, *15*(16), pp. 19–25. <a href="https://doi.org/10.1016/j.copsyc.2017.02.012">https://doi.org/10.1016/j.copsyc.2017.02.012</a>.
- Spicer. (2016). "Explanatory case study on factors that contribute to the commission of financial fraud"., (Vol. 53, Issue 9). Northcentral University.
- Suyanto. (2009). "Fraudulent Financial Statement: Evidence from Statement on Auditing Standard No. 99"., *Gadjah Mada International Journal of Business*, 11(1). https://doi.org/10.22146/gamaijb.5539.
- Talwar, V., & Crossman, A. (2011). "From little white lies to filthy liars, The evolution of honesty and deception in young children"., In *Advances in Child Development and Behavior* (1st ed., Vol. 40). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-12-386491-8.00004-9">https://doi.org/10.1016/B978-0-12-386491-8.00004-9</a>.
- Talwar, V., & Crossman, A. (2022). "Liar, liar... sometimes: Understanding social-environmental influences on the development of lying"., *Current Opinion in Psychology*, 47. https://doi.org/10.1016/j.copsyc.2022.101374.
- Talwar, V., Lavoie, J., & Crossman, A. M. (2022). "Socialization of lying scale: development and validation of a parent measure of socialization of truth and lie-telling behavior"., *Applied Developmental Science*, 0(0), pp. 1–14. <a href="https://doi.org/10.1080/10888691.2021.1927732">https://doi.org/10.1080/10888691.2021.1927732</a>.
- Torroba Diaz, M., Bajo-Sanjuan, A., Callejón Gil, Á. M., Rosales-Pérez, A., & López Marfil, L. (2023). "Environmental behavior of university students"., *International Journal of Sustainability in Higher Education*, 24(7), pp. 1489–1506. https://doi.org/10.1108/IJSHE-07-2022-0226.
- Transparency International. (2020). "Corruption perceptions index 2020"., <a href="http://cpi.transparency.org/cpi2013/results/">http://cpi.transparency.org/cpi2013/results/</a>
- UNESCO. (2024). "Empowering students for just societies: a handbook to teach integrity in secondary schools"., In *United Nations Educational, Scientific and Cultural Organization*. https://doi.org/10.54675/ongd8170.
- van Dijk, J., Nieuwbeerta, P., & Joudo Larsen, J. (2022). "Global Crime Patterns: An Analysis of Survey Data from 166 Countries Around the World, 2006–2019"., In *Journal of Quantitative Criminology* (Vol. 38, Issue 4). Springer US. <a href="https://doi.org/10.1007/s10940-021-09501-0">https://doi.org/10.1007/s10940-021-09501-0</a>
- Webber, J. (2022). "Integrity as the Goal of Character Education"., *Royal Institute of Philosophy Supplement*, 92, pp. 185–207. https://doi.org/10.1017/s1358246122000273
- Zhao, L., Zheng, Y., Zhao, J., Li, G., Compton, B. J., Zhang, R., Fang, F., Heyman, G. D., & Lee, K. (2023). "Cheating among elementary school children: A machine learning approach"., *Child Development*, 94(4), pp. 922–940. https://doi.org/10.1111/cdev.13910
- Zlokazov, K. (2022). "The social environment of the personality and its influence on criminal behavior"., *Applied Psychology and Pedagogy*, 7(3), pp. 127–139. https://doi.org/10.12737/2500-0543-2022-7-3-127-139