

## Factors influencing asset misappropriation in financial institutions: The application of fraud diamond theory

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**Abstract:** Fraud cases in financial institutions have increased globally in recent years and Malaysia is no exception. Internal actors committed the most frauds, causing 69% of organisations to suffer from their actions, as compared to only 17% organisations dealing with frauds caused by external actors. Moving towards the future, a greatest concern of fraud in Malaysia revolves around asset misappropriations. It is necessary to understand why people commit fraud to reduce the number of asset misappropriation occurrences. Thus, the research aims to investigate factors influencing asset misappropriation in financial institutions. The research suggested elements in the Fraud Diamond Theory as influencing factors, namely pressure, opportunity, rationalization, and capability. Data for the research was obtained from a survey questionnaire that polled public attitudes with regards to the selected factors influencing asset misappropriation occurrences. 111 respondents participated in the survey, for which the findings showed that only pressure and capability had a significant relationship with asset misappropriation. Opportunity and rationalisation were found to have no significant relationship with asset misappropriation. This implies that personal integrity is a more critical issue, as compared to rationalisation. The research is hoped to help financial institutions by assisting banking and financial sectors, as well as policymakers in managing risks of fraud and developing policies to reduce operational risk.

**Keywords:** *Asset misappropriation, Financial institution, Fraud diamond theory, Risk, economy.*

### 1. Introduction

Lin (2012) and Bank Negara Malaysia (BNM, 2011) reported on the importance of financial sectors to support economic growth and facilitate the transition of economy into a next phase of development by offering competitive prices, high-value-added financial products and services, as well as speeding up new economic sectors. The Malaysian government has introduced the Financial Sector Blueprint 2011-2020, which promotes Malaysia's high-value, high-income economy and growth creation based on productivity gains and innovation that is inclusive, stable, and sustainable, while also playing an increasingly important role to meet with Asia's rising financial needs (BNM, 2011). In this decade, the financial system is expected to grow at an annual rate of 8 to 11 percent, increasing the financial system's depth to six times of its Gross Domestic Products (GDP) in 2020 (2010: 4.3 times GDP). As a result, financial institutions play a crucial role in ensuring economic growth and country development.

There are two main categories of banking fraud, namely external and internal fraud (ACFE, 2011; PwC, 2018). Internal fraud refers to workers who steal cash or inventory from their organisation or other staff; or they allow other workers to steal. Internal fraud was also defined by the Association of

Certified Fraud Examiners (ACFE) as occupational fraud and abuse fraud (ACFE, 2020). In the case of Malaysia, Menezes (2014) reported that an employee of a bank was involved with fraudulent misconduct in 2014, for which this employee faced 12 charges of theft amounting \$35,000 (RM110,600). The employee was caught transferring money from accounts of customers who were victims of the MH370 tragedy. Furthermore, Bernama (2013) reported that Malaysian banks have suffered a loss amounting to RM789 million, which is approximately USD 185 million, due to banking fraud for the years 2008 and 2013. A majority of banking fraud cases involved instances of bank employees who withdrew money from dormant accounts of more than three years, abused clients' overdraft, and failed to credit cash deposits to client accounts. Investigations found that 60 percent of banking fraud was committed by its staff, the management (30%), and clients themselves (10%).

Based on the Pricewaterhouse Cooper's Global Economic Crime and Fraud Survey - Malaysia Report (PwC, 2018), Malaysian respondents who have suffered from fraud saw an increase from 28 percent to 41 percent in the last two years (i.e., 2016 and 2017). Major categorisations of fraud in Malaysia for the last two years include business misconduct (45%), asset misappropriation (41%), also bribery and corruption (35%). Internal actors committed the most frauds, which impacted 69 percent of organisations, as compared to only 17% of organisations being impacted from frauds caused by external actors. Employee fraud can potentially become a common fraud in any business industry workplace. As a result, in the following two years (i.e., 2019 and 2020), asset misappropriation was found to be the highest concern in Malaysia with 18 percent of occurrence (PwC, 2018). Major perpetrators would usually be internal actors because employees would mostly have the power and opportunity to easily cover up the misuse of organisation assets for their personal use. Thus, the main objective of the research is to investigate factors influencing asset misappropriation in financial institutions.

## 2. Literature Review

To combat fraud occurrences, organisations need to understand its causes and motivation of fraudsters to commit this fraud. The traditional fraud theory, which is popularly known as the Fraud Triangle Theory (FTT), stated that three conditions must exist for fraud to occur. Cressey (1950) introduced FTT which explains factors contributing towards fraudulent activities among individuals. This theory has since become a precedence to other researches, such as Abdullahi, Mansor, and Nuhu (2015); Mawanza (2014); also, Mui and Mailley (2015), where it was concurred that three conditions must be present for fraud to occur: pressure, opportunity, and rationalisation. However, Kassem and Higson (2012); Albrecht, Howe, and Romney (1984); Fleming et al. (2012); as well as Wolfe and Hermanson (2004), had criticised FTT in the past. They argued that FTT alone is not able to explain fraud occurrences because rationalisation factor cannot be observed. In addition, other important factors such as capability of the fraudsters was ignored in FTT. To close this gap, another model known as Fraud Diamond Theory (FDT) was introduced by Wolfe and Hermanson (2004), with a fourth fraud factor being introduced in addition to FTT, which is the capability of fraudster.

### 2.1. Perceived Opportunity

The first factor influencing asset misappropriation is perceived opportunity. Generally, five components can be implemented by various types of organisations, namely control activities, control environment, risk assessment, monitoring activities, as well as information and communication (Nawawi & Salin, 2018). Due to a lack of internal control and ineffective accounting system, banks' employees have a lot of opportunities to do illegal activities and then conceal it by altering relevant records or false documentation.

In a Malaysian study by Said, Mohamad and Kazemian (2018) 320 questionnaires survey was sent to employees working for the top three largest banks in Malaysia. The study found that there is a positive relationship between opportunity on employees and asset misappropriation in the banking system. For example, if policies or guidelines are not well documented, physical checks are insufficient, transactions are not recorded on time, or cash boxes are not strongly secured, then employee fraud would most likely

occur in the bank. Similar findings by Wan Mohd Fathi et al. (2017) found that employee's perceived opportunities to commit fraud could be reduced by closely supervising the transaction and use of Islamic banks' assets and properties. This finding is supported by previous researches by Tjakrawala and Saputra (2011) in Jakarta; as well as Purnamasari and Oktarozza (2015) in Bandung. The results showed that opportunity has positively influenced employee fraud which lead to asset misappropriation. Since a weak internal control system may become an opportunity for employees to commit fraud, the following hypothesis is developed:

*H<sub>1</sub>: There is a positive relationship between opportunity and asset misappropriation among financial institutions employees in Malaysia.*

### 2.2. Perceived Pressure

Perceived pressure is a motivation or incentive to commit fraud (Mui and Mailley, 2015). In Malaysia, Said et al. (2017) found that pressure plays a role in increasing the likelihood of fraud among financial institution employees. Financial pressures may differ depending on the position of the employee. An individual employee tend to commit fraud if elements of pressure exist. The existence of pressure may come from either aspects of financial or non-financial. Zahra, Priem and Rasheed (2007) supported the correlation between perceived pressure among employees and the likelihood of fraud. There are several types of pressures that can influence an individual employee and encourage their fraudulent behaviour, which are society, industry, and organisational pressures. The researchers found that pressure is the main reason for fraudulent activities. Furthermore, Said et al. (2018) in their correlation analysis found that employee fraud in enforcement officers is positively correlated with pressure. This analysis agreed with previous studies which had explored the impact of pressures on the perpetration of fraudulent behaviour, such as asset misappropriation, financial statement fraud, as well as bribery of private and public sector employees (Rezaee, 2005; Dellaportas, 2013).

Overall, employees who experience pressure in their daily life tend to misuse organisational assets, as compared to other employees who do not experience it. This pressure motivates employees to commit fraud. Many studies found a positive relationship between pressure and fraud. Therefore, from discussions on previous studies, the following hypothesis is proposed:

*H<sub>2</sub>: There is a positive relationship between pressure and asset misappropriation among financial institutions employees in Malaysia.*

### 2.3. Rationalisation

Rationalisation is an individual justification for dishonest actions, which could lead to other losses (Mui & Mailley, 2015). Said et al. (2018) found that rationalisation has a positive link towards asset misappropriation among bank employees. This finding demonstrated the typical feature of a fraudster to come out of his or her fraudulent activities with a series of excuses and rationalisation to get rid of the feeling of guilt. Furthermore, Wan Mohd Fathi et al. (2017) who studied the potential of employee fraud in Malaysian Islamic banks found that most respondents inclined to justify their action of borrowing money from their employer's petty cash as a norm since everybody is doing the same. It was also found that perception on perceived rationalisation differs between positions. Low-level employees are more agreeable with perceived rationalisation as compared to the top and middle management.

Meanwhile, at the New York's state public schools, Slezak (2013) researched on theft among employees, where it was found that many employees would convince themselves with rationalisations of an opportunity. In this study, most employees (57%) who participated in fraudulent activities would rationalise their actions of committing theft as many as 18 times. This study also revealed that nine rationalisation techniques provided were collectively used by respondents; this was where over 46 percent of them admitted that the misuse of time was an appropriate behaviour. The employee rationalisation pattern reported by these studies hence serve as a basis for developing the following hypothesis:

*H<sub>3</sub>: There is a positive relationship between rationalisation and asset misappropriation among financial*

*institutions employees in Malaysia.*

#### *2.4. Capability*

In a Malaysian study by Said et al, (2018), the element of capability has a significant positive influence on asset misappropriation among bank employees. This study supported a previous study by Wolfe and Hermanson (2004), which revealed that capability can play a major role in fraud occurrences. FDT considers the individual capability with addressing incentives, opportunities, and rationalisation. As such, the perpetrator must be able to recognise the open door as an opportunity and make the most of it by walking through the open door, not only once, but repeatedly (Abdullahi, Mansor, & Nuhu, 2015).

A finding from Wan Mohd Fathi et al. (2017) showed a significant relationship on position influencing Malaysian bank employees to commit asset misappropriation. Low-level staff were found to be more committed with fraud as compared to the top and middle management. This result was supported by Kennedy (2018), where a majority of insider financial frauds were committed by lower-level employees because they had a high opportunity to misuse assets. A similar result by Istifadah and Senjani (2020) showed that ability has a positive and significant effect on the tendency to commit fraud. The greater the ability of the perpetrators to execute fraud, the greater will be the probability of fraud being committed. As a result, past empirical studies have led to the formulation of the fourth hypothesis of the research.

*H<sub>4</sub>: There is a positive relationship between capability and asset misappropriation among financial institutions employees in Malaysia.*

### **3. Research Design**

The purpose of the research is to investigate factors influencing asset misappropriation among financial institutions' employees. An online survey was randomly distributed to employees working in financial institutions located at Klang Valley from 7<sup>th</sup> November to 2<sup>nd</sup> December 2020. For regression analysis, the research used a model suggested by Green (1991) to determine the required minimum sample size, which would be in line with the research. The sample size model suggested was  $N > 50 + 8m$ , where  $m$  refers to the number of independent variables (IVs). Since the research has four IVs, the minimum sample size should be at least 82 to represent the population of employees in Malaysian financial institutions.

The first section of the survey describes the respondent's demographic profile, such as age, gender, financial institution, and position. The survey provided to respondents used a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The measurement of the dependent variable (DV), which is asset misappropriation in financial institutions, is carried out in Section B of the survey. To measure asset misappropriation, respondents need to provide their opinion on eight different items related to the usual practice of utilising office assets and facilities. The items included to measure DV were adapted with some modifications from previous study by Ab Majid et al. (2010), which was cited by Said et al. (2018).

Questions in the survey are intended to measure selected IVs, namely elements of opportunity, pressure, and rationalisation factors influencing asset misappropriation. All these questions are primarily adapted with some modifications from the instrument applied in previous research, which include opportunity (Root, 2000), pressure (Kassem & Higson, 2012), rationalisation (Said et al., 2017), and capability (Kazemian et al., 2019). Firstly, the opportunity variable measured in Section C consists of nine items regarding respondents' opinion on the weaknesses of internal control in an organisation that would influence asset misappropriation. Secondly, in Section D, respondents are asked to provide their opinion on the pressure involving financial and non-financial pressures with ten items. After that, respondents are requested to choose from a scale provided consisting of eight items on rationalisation that reflects the employees' working culture and working environment in Section E. Lastly, in Section F, there are six items for capability regarding employee traits or skills and position to recognise the

possibility of fraud in a department.

#### 4. Results

The research used the Statistical Package for the Social Science (SPSS) software, version 23 as its statistical data analysis software. This study received 111 respondents who participated in the survey. Out of the 160 questionnaires distributed to selected sample, the research response rate was found to be 69 percent (i.e.  $111/160 \times 100$ ). According to Alreck and Settle (1995), gaining a survey response rate of 5 percent to 10 percent has become common in research. These findings show that the obtained response rate is considered suitable for analysis.

##### 4.1. Descriptive Analysis

###### 4.1.1. Demographic Profile

Table 1.1 depicts the descriptive statistics for respondents' gender. Based on analysis, 33.3 percent of respondents were found to be male respondents, whereas 66.7 percent were female respondents. According to Wan Mohd Fathi et al. (2017), this result shows significant relationship on gender, age, position, and religiosity in influencing employees of financial institutions to commit asset misappropriation.

**Table 1.1**  
Descriptive Statistics of the Respondents' Gender

Gender	Frequency (N=111)	Percentage (%)
Male	37	33.3
Female	74	66.7

N=Total number of respondents

Moreover, Table 1.2 showed that the largest group of respondents was in a category of aged less than 30 years old, which constitutes 47.7 percent of respondents. This is followed by the categories with an age range of 31 to 40 years old (31.5%), 41 to 50 years old (11.7%), as well as 51 years old and above (9%). These results indicate that most respondents are within an age group of less than 30 years old.

**Table 1.2**  
Descriptive Statistics of the Respondents' Age

Age	Frequency (N=111)	Percentage (%)
Less than 30 years old	53	47.7
31-40	35	31.5
41-50	13	11.7
51 years old and above	10	9.0

N=Total number of respondents

Table 1.3 illustrates the descriptive statistics for respondents' marital status. According to the analysis, 62.2 percent of the respondents are married, meanwhile, 37.8 percent are single. Further, no respondent is found to be widowed and divorced. Based on Table 1.2 and 1.3, a majority of respondents

married at an early age, which is below 30 years old.

**Table 1.3**  
Descriptive Statistics of the Respondents' Marital Status

Marital Status	Frequency (N=111)	Percentage (%)
Single	42	37.8
Married	69	62.2
Divorced	0	0.0
Widowed	0	0.0

N=Total number of respondents

Table 1.4 shows the descriptive statistics for respondents' highest academic qualification. The highest percentage of respondents comes from employees holding a bachelor's degree with 55 percent. This is followed by respondents with Diploma qualification (21.6%), Master's Degree (13.5%), Sijil Pelajaran Malaysia or Certificate holders (7%), and 0.9 percent holding a Doctor of Philosophy. These findings indicate that most respondents are less than 30 years old, well-educated and should be able to respond adequately to the survey.

**Table 1.4**  
Descriptive Statistics of the Respondents' Highest Academic Qualification

Academic Qualification	Frequency (N=111)	Percentage (%)
SPM/Certification	10	9.0
Diploma	24	21.6
Bachelor's Degree	61	55.0
Master's Degree	15	13.5
Doctor of Philosophy	1	0.9

N=Total number of respondents

Table 1.5 presents the descriptive statistics for respondents' work experience. A majority of respondents (58.6%) had worked in their current financial institution for 5 years and above. Moreover, 25.2 percent of the respondents had worked within 1 to 3 years, 11.7 percent of respondents had worked for less than 1 year, and the remaining 4.5 percent had worked within 4 to 5 years in the financial institution. Overall, most respondents had more than 5 years of work experience. These findings show that most respondents had extensive experience and knowledge of the financial institution's asset misappropriation. Therefore, the collected data is considered to be accurate and reliable.

**Table 1.5**  
Descriptive Statistics of the Respondents' Work Experience

<b>Length of Work Experience</b>	<b>Frequency (N=111)</b>	<b>Percentage (%)</b>
Less than 1 year	13	11.7
1 to 3 years	28	25.2
4 to 5 years	5	4.5
5 years and above	65	58.6

N=Total number of respondents

Table 1.6 shows the descriptive statistics for respondents' position in their current workplace. More than half of the respondents are at lower management level (53.2%), while 37.8 percent of them are at middle management and supervisor levels, and 9 percent represented employees at the top management level. These data show that most respondents' positions are at a low-level, which is consistent to respondents age being less than 30 years old. Results from Kennedy (2018) had previously showed that most insider financial frauds were committed by lower-level employees because they had a high opportunity to misuse assets.

**Table 1.6**  
Descriptive Statistics of the Respondents' Current Position

<b>Current Position</b>	<b>Frequency (N=111)</b>	<b>Percentage (%)</b>
Top Management	10	9.0
Middle Management & Supervisor	42	37.8
Low management	59	53.2

N=Total number of respondents

Lastly, Table 1.7 highlights the descriptive statistics for respondents' current average monthly salary. Most respondents are earning less than RM2500 (28.8%), as well as RM2501 to RM3500 (23.4%) due to most respondents' current position at the lower management level. Meanwhile, 19.8 percent are earning RM3501 to RM5000, 18 percent are earning RM7001 and above, and only 9.9 percent are earning RM5001 to RM7000. Therefore, 52.2 percent of respondents' average monthly salary is at most RM3500, which could be due to the fact that most respondents are aged less than 30 years old and are at a position of low-level management.

Table 1.7  
Descriptive Statistics of the Respondents' Average Monthly Salary (RM)

Average Salary	Frequency (N=111)	Percentage (%)
Less than 2,500	32	28.8
2,501 to 3,500	26	23.4
3,501 to 5,000	22	19.8
5,001 to 7,000	11	9.9
7,001 and above	20	18.0

N=Total number of respondents

#### 4.1.2. Frequencies for Each Dimension of Questionnaire

Table 1.8 shows the mean score and standard deviation for each dimension. Firstly, the overall asset misappropriation mean score of all the eight items was 1.955 with a standard deviation of 0.945. This indicates that on average, respondents would perceive that asset misappropriation happened at low frequently in current financial institutions. Secondly, the analysis examined the extent to which respondents would agree with perceived opportunity based on the statements relating to good internal control in Malaysian financial institutions. The overall mean opportunity score of all the nine items was 2.360, with a standard deviation of 1.137. This indicates that on average, respondents would perceive that opportunity would happen at low level due to current effective internal control. Thirdly, Table 1.8 shows the overall pressure mean score of all ten items at 3.779 with a standard deviation of 0.959. This indicates that on average, respondents agreed that perceived pressure is at a medium level. Based on the result, pressure is a highest mean score compared to other variables. Fourthly, the overall rationalisation mean score of all ten items was 3.667 with a standard deviation of 0.975. This indicates that on average, respondents would justify their fraud to be happening at a medium frequency. Lastly, the table shows the overall capability mean score of all ten items is 1.976 with a standard deviation of 1.164. This indicates that on average, the respondents' ability to commit fraud would happen at a lower frequency.

Table 1.8  
Descriptive Statistics of the Each Dimension

Items	Mean	Std. Dev.
Asset Misappropriation	1.955	0.945
Perceived Opportunity	2.360	1.137
Perceived Pressure	3.779	0.959
Rationalisation	3.667	0.975
Capability	1.976	1.164

#### 4.2. Multiple Linear Regression Analysis

According to Pallant (2011), multiple regression is predicting scores on DV from scores of several IVs. In this study, the multiple linear regression analysis used the stepwise method on the four IVs and the single DV. This is because stepwise regression is a combination of forward selection and backward elimination (Md Ghania & Ahmad, 2010). Moreover, the stepwise method is useful to determine whether these predictors, as they are added in stages (i.e., forward selection), could improve the model (Field, 2014). In stepwise regression, decisions are based solely on a mathematical criterion about the



order in which predictors are entered into the model (Field, 2014). The research uses a stepwise regression package programme by 95 percent of significance level for criteria, including and excluding the IVs. The SPSS programme would run the data until its final model.

The stepwise method results into two model results. By referring to Field (2014), there are two separate tables as shown in Table 1.9. The coefficient result shows the significant IVs (forward), while the excluded variables show IVs that are not significant (backward). Based on Table 1.9, Model 1 only consists of capability ( $p = 0.000$ ), which has significant relationship with asset misappropriation. In Model 2 however, pressure (0.001) and capability ( $p = 0.000$ ) show significant relationships with asset misappropriation. By referring to Field (2014); also, Levinm and Rubin (1994), a model would be best fit as it's  $R^2$  values are compared. The higher  $R^2$  value is, the better the model would fit the data. By comparing the value of  $R^2$  as depicted in Table 1.10, outcome from Model 2 ( $R^2 = 0.453$ ) has a higher value of  $R^2$  as compared to Model 1 ( $R^2 = 0.390$ ). As a result, Model 2 is better fitted to the data than Model 1. Hence, only two IVs are considered to be significant (i.e., pressure & capability) and displayed in the regression equation. As such, findings are based from the results of Model 2.

Table 1.9

Result of Coefficient:

Model	Variables	Beta	Standard Error	t	Sig.
1	Constant	0.953	0.139	6.850	0.000
	Capability	0.507	0.061	8.340	0.000
2	Constant	0.102	0.276	0.368	0.713
	Pressure	0.260	0.074	3.526	0.001
	Capability	0.440	0.061	7.234	0.000

Excluded variables:

Model	Variables	Beta	t	Sig.
1	Opportunity	0.186	2.480	0.015
	Pressure	0.264	3.526	0.001
	Rationalisation	0.268	3.233	0.002
2	Opportunity	0.138	1.878	0.063
	Rationalisation	0.154	1.572	0.119

Model 1- (Constant), Capability

Model 2- (Constant), Pressure, Capability

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Table 1.10

Result of Model Summary

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate	R-Square Change
1	0.624	0.390	0.384	0.74165	0.390
2	0.673	0.453	0.442	0.70558	0.063

Model 1- (Constant), Capability

Model 2- (Constant), Pressure, Capability

## 5. Discussion

It was proposed by  $H_1$  that there is a significant relationship between opportunity and asset misappropriation occurrences. However, findings from Model 2 shows that there is no significant linear relationship between opportunity and asset misappropriation. Hence,  $H_1$  is rejected. Furthermore, opportunity is found to be significantly low but positive correlation with asset misappropriation in financial institutions [ $r = 0.313$ ,  $p = 0.001$ ]. This indicates that the greater opportunities that are available, the more will be the likelihood of employees in committing asset misappropriation among Malaysian financial institutions. The research concludes that opportunity is insignificant with asset misappropriation in Malaysian financial institutions, which indicates that current financial institutions have good internal control being set in place. Effective internal control helps to reduce employees' opportunity to misuse assets (Abdullahi et al., 2015; Nawawi & Puteh Salin, 2018). This is supported by the study of Tjakrawala and Saputra (2011), which demonstrated that employees who have opportunity would tend to exploit assets as compared to employees who have no chance of doing so. Therefore, fewer opportunities would lead to the less likelihood of committing asset misappropriation in Malaysian financial institutions.

$H_2$  proposed that there is a significant relationship between pressure and asset misappropriation occurrences. Results from Model 2 shows that there is a significant linear relationship between pressure and asset misappropriation. Hence,  $H_2$  is supported. Pressure was found to have significantly low but positive correlation with asset misappropriation [ $r = 0.433$ ,  $p = 0.000$ ]. This indicates that the greater is the employees' perceived pressures, the more likelihood there is for them to commit asset misappropriation in Malaysian financial institutions. This finding is supported by previous studies (Said, Mohamad & Kazemian, 2018; Said et al., 2018; Said et al., 2017; Said et al., 2018; Purnamasari & Oktaroza, 2015; Kazemian et al., 2019; Tjakrawala & Saputra, 2011; Dellaportas, 2013). Financial institution employees who experience pressure tend to commit with more misuse of organisational resources in comparison to other employees who do not experience any pressure in their daily lives. This pressure will motivate the employee to commit more asset misappropriation.

$H_3$  proposed that there is a significant relationship between rationalisation and asset misappropriation occurrences. However, results from Model 2 showed that there is no significant linear relationship between rationalisation and asset misappropriation. Hence,  $H_3$  is rejected. Further, rationalisation was found to have significantly moderate and positive correlation with asset misappropriation in financial institutions [ $r = 0.513$ ,  $p = 0.000$ ]. It means that the greater employees would rationalise their fraudulent act, the more likelihood of employees to commit asset misappropriation in Malaysian financial institutions. This result hence shows that rationalisation is insignificant when it comes to influencing asset misappropriation, contradicting the results of Said, Mohamad, & Kazemian, (2018); Said et al. (2018); Said et al. (2017); Said et al. (2018); Purnamasari and Oktaroza, (2015); Kazemian et al. (2019); Slezak (2013); Dellaportas (2013); also, Istifadah and Senjani, (2020). Even though the mindset of perpetrators does not justify their fraudulent acts, low ethical values among employees will result in high asset misappropriation incidents. According to Kassem and Higson (2012); Albrecht, Howe, and Romney (1984); also, Dorminey et al. (2012), critics of FTT argued that the theory by itself is not adequate in explaining fraud because rationalisation factor cannot be observed. The model alone is an ineffective instrument to deter, prevent, and detect fraud. Fraud Scale Model which was developed by Albrecht et al. (1984), provides an alternative to the FTT. Hence, the research suggests for future researchers to investigate the scale of fraud by Albrecht, Howe and Romney (1984) that requires personal integrity rather than rationalisation, which would be more observable. Mathenge (2014) investigated ethical values among enforcement workers, who were found to be easily exposed to corruption. He found that high ethical value (i.e., competence, trust & professionalism) is able to minimise employees' chance of fraudulent activities in the workplace.

$H_4$  proposed that there is a significant relationship between capability and asset misappropriation occurrences. Model 2 result shows that there is a significant linear relationship between capability and asset misappropriation. Hence,  $H_4$  is supported. Furthermore, capability is found to have significantly

moderate and positive correlation with asset misappropriation [ $r = 0.624, p = 0.000$ ]. This indicates that the greater is employees' abilities in the workplace, the more will be likelihood of committing asset misappropriation in Malaysian financial institutions. This finding on capability has a positive and significant effect on the tendency to commit fraud, supported by previous studies (Said, Mohamad, & Kazemian, 2018; Purnamasari & Oktaroza, 2015; Kazemian, et al., 2019; Wan Mohd Fathi et al., 2017). Based on Wolfe and Hermanson (2004), capability would be considered due to personal traits and abilities as being a major role in determining whether fraud may occur. According to Istifadah and Senjani (2020), capability has a positive and significant effect on the tendency to commit fraud. The greater is the ability of perpetrators to execute fraud, the greater will be the probability of fraud being committed. Findings suggested that perpetrators of fraud are determined by intellect and creativity. Perpetrators may search for details about loopholes in finding ways to commit fraud and use it to their advantage.

## 6. Conclusion

The main concern of fraud in Malaysia is asset misappropriation. Literature and findings from the research could help financial institutions to be aware of issues on asset misappropriation, which have been on the rise year-by-year. By understanding factors that drive fraudsters to commit fraud, employees' fraud incidents may be effectively prevented and combatted. This research should be able to assist the banking and financial sector, as well as policymakers in managing the risk of fraud and develop policies to reduce operational risk. If financial institutions have misplaced trust, inadequate supervision, and hiring policies, as well as weak internal controls, it may create an environment for employees to act fraudulently. Moreover, policymakers also concern about asset misappropriation issues within institutions. Policymakers can better segment fraud perpetrators and proactively manage controllable variables to inhibit fraudulent behaviours by understanding reasons to commit fraud. The results of the research would clarify and subsequently implement strategies to mitigate asset misappropriation.

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## References

- [1] Ab Majid, R., Mohamed, N., Abdullah, A., & Mahmud, Z. (2010). An exploratory study on the possibility of misappropriation of assets occurring in a local authority, paper presented at the 2010 International Conference on Science and Social Research (CSSR). *Science and Social Research (CSSR), 2010 International Conference*. Kuala Lumpur: IEEE.
- [2] Abdullahi, R., Mansor, N., & Nuhu, M. (2015). Fraud Triangle Theory and Fraud Diamond Theory: Understanding the Convergent and Divergent for Future. *European Journal of Business and Management, 7*(28).
- [3] Albrecht, W., Howe, K., & Romney, M. (1984). *Detering Fraud: The Internal Auditor's Perspective*. Altamonte Springs, Fla.: Institute of Internal Auditors Research Foundation.
- [4] Alreck, P., & Settle, R. (1995). *The Survey Research Handbook*. Irwin.
- [5] Association of Certified Fraud Examiners (ACFE). (2020). *Report to Nations: 2020 Global Study of Occupational Fraud and Abuse*. Austin, USA: Association of Certified Fraud Examiners.
- [6] Association of Certified Fraud Examiners. (2011). *Introduction to Fraud Examination: Fraud Schemes, page 75-85*. Retrieved from Association of Certified Fraud Examiners:

- [https://www.acfe.com/uploadedFiles/Shared\\_Content/Products/Selfn](https://www.acfe.com/uploadedFiles/Shared_Content/Products/Selfn) Study\_CPE/Intro%20to%20Fraud-Chapter%20Excerpt.pdf
- [7] Bank Negara Malaysia. (2011). *Financial Sector Blueprint 2011- 2020*. Kuala Lumpur, Malaysia: Bank Negara Malaysia.
- [8] Bank Negara Malaysia. (17 May 2018). *Labour Market Statistics of the Financial Services Sector*. Retrieved from Bank Negara Malaysia: [http://www.bnm.gov.my/index.php?rp=1q2018\\_labour\\_market\\_stats\\_with](http://www.bnm.gov.my/index.php?rp=1q2018_labour_market_stats_with)
- [9] Bernama. (6 December 2013). *Malaysians lost RM769mil to scams in 3 years*. Retrieved from The Malaysian Insider: <https://sg.news.yahoo.com/hundreds-millions-swindled-banks-past-5-years-mostly-155349378.html>
- [10] Cressay, D. R. (1950). The Criminal Violation of Financial Trust. *American Sociological Review*, 15(6), 738-743.
- [11] Dellaportas, S. (2013). Conversations with inmate accountants: Motivation, opportunity and the fraud triangle. *Accounting Forum*, 37(1), pp.29-39.
- [12] Dorminey, J., Fleming, A. S., Kranacher, M.-J., & Riley, R. A. (2012). The Evolution of Fraud Theory. *Issues in Accounting Education*, 27(2), 555-579.
- [13] Field, A. (2014). *Discovering Statistics Using SPSS (4th Edition)*. City Road, London: SAGE
- [14] Green, S. (1991). How Many Subjects Does It Take To Do A Regression Analysis. *Multivariate Behavioural Research*, Vol 26(3), 499-510, DOI: 10.1207/s15327906mbr2603\_7.
- [15] Istifadah, R. U., & Senjani, Y. P. (2020). Religiosity as the moderating effect of diamond fraud and personal ethics on fraud tendencies. *Journal of Islamic Accounting and Finance Research*, 2(1), pp. 91-116.
- [16] Kassem, R., & Higson, A. (2012). The New Fraud Triangle Model. *Journal of Emerging Trends in Economics and Management Sciences*, 3(3), 191-195.
- [17] Kazimean, S., Said, J., Nia, E. H., & Vakilifard, H. (2019). Examining Fraud Risk Factors on Asset Misappropriation: Evidence from the Iranian Banking Industry. *Journal of Financial Crime*, 26(2), pp. 447-463. <https://doi.org/10.1108/JFC-01-2018-0008>.
- [18] Kennedy, J. P. (2018). Asset Misappropriation in Small Businesses. *Journal of Financial Crime*, 25(2), 369-383.
- [19] Lie Lin, B. (2012). *Factors Affecting The Performance of Financial Sectors in Malaysia*. Sarawak, Malaysia: Universiti Malaysia Sarawak.
- [20] 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.
- [21] Mawanza, W. (2014). An Analysis of the Main Forces of Workplace Fraud in Zimbabwean Organisations: The Fraud Triangle Perspective. *International Journal of Management Sciences and Business Research*, ISSN (2226-8235), 3(2), pp. 86-94.
- [22] Md Ghania, I. M., & Ahmad, S. (2010). Stepwise Multiple Regression Method to Forecast Fish Landing. *Procedia Social and Behavioral Sciences*, 8, 549-554.
- [23] Mui, G., & Mailley, J. (2015). A tale of two triangles: comparing the Fraud Triangle with criminology's Crime Triangle. *Accounting Research Journal*, 45-58.
- [24] Nawawi, A., & Puteh Salin, A. S. (2018). Internal control and employees' occupational fraud on empenditure on claims. *Journal of Financial Crime*, Vol.25, No. 3, 891-906.
- [25] Pallant, J. (2011). *Survival manual. A step by step guide to data analysis using SPSS*. Milton Keynes: Open University Press.
- [26] PricewaterhouseCoopers (PwC). (2018). *Global Economic Crime and Fraud Survey (Malaysia Report)*. PwC Consulting Associates (M) Sdn. Bhd.
- [27] PricewaterhouseCoopers (PwC). (2018). *Global Economic Crime and Fraud Survey (Southeast Asia Report)*. PricewaterhouseCoopers (PwC).
- [28] Purnamasari, P., & Oktaroza, M. (2015). Influence of employee fraud on asset misappropriation analysed by fraud diamond dimension. *International Conference on Accounting Studies (ICAS)*. Johor Bahru, Malaysia.
- [29] Rezaee, Z. (2005). Causes, consequences, and deterrence of financial statement fraud. *Critical Perspectives on Accounting*, 16(3), 277-298.
- [30] Root, S. (2000). *Beyond Coso: Internal Control to Enhance Corporate Governance*. Los Angeles, CA: John Wiley & Sons.
- [31] Said, J., Alam, M., Abdul Karim, Z., & Johari, R. (2018). Integrating religiosity into fraud triangle theory: findings on Malaysian policeofficers. *Journal of Criminological Research, Policy, and Practice*, Vol. 2, No. 2, 111-123.
- [32] Said, J., Alam, M., Ramli, M., & Rafidi, M. (2017). Integrating ethical values into fraud triangle theory in assessing employee fraud: Evidence from the Malaysian banking industry. *Journal of International Studies*, 10(2), 70-184.
- [33] Said, J., Asry, S., Rafidi, M., Obaid, R., & Alam, M. (2018). Integrating Religiosity into Fraud Triangle Theory: Empirical Findings from Enforcement Officers. *Journal of Criminological Research Policy and Practice* 4(2), 111-123, ISSN: 2232-0474.
- [34] Said, J., Mohamad, N., & Kazimean, S. (20th -21st June, 2018). Empirical Findings of Mitigating Asset Misappropriation Among Bank Employees: Fraud. *Proceedings of 119th ISERD International Conference, June*, (pp. 25-29). Rome, Italy.
- [35] Slezak, K. (2013). *Fraud prevention and employee rationalization in New York State Public School*. Albany, New York: Ph.D. Dissertation, State University of New York.
- [36] Tjakrawala, & Saputra. (2011). Causality Model of the factors that contribute to frauds. Statistics study as an

- alternative to extent Fraud-Triangle Elements. *Jakarta: Jurnal Akuntansi FE Untar*, 15(3), 276-290.
- [37] Wan Mohd Fathi, W., Ghani, E., Said, J., & Puspitasari, E. (2017). Potential Employee Fraud Scape in Islamic Banks: The Fraud Triangle Perspective. *Global Journal Al-Thaqafah*, 7(2), pp. 79-93.
- [38] Wolfe, D., & Hermanson, D. (2004). The fraud diamond: considering the four elements of fraud. *The CPA Journal*, 74(12).
- [39] Zahra, S., Priem, R., & Rasheed, A. (2007). Understanding the Causes and Effects of Top Management Fraud. *Organizational Dynamics*, 36(2), doi:10.1016/j.orgdyn.2007.03.002, 122-139.