



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



The Tendency for Occupational Fraud in Malaysian Small Medium Enterprises and The Effect of Internal Control, Ethical Culture and Awareness on Fraud

Mujida Hanim Binti Abu Bakar, Mohamad Ezrien Mohamad Kamal, Mohamad Shahril Ishak

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v13-i1/16293> DOI:10.6007/IJARBSS/v13-i1/16293

Received: 21 November 2022, **Revised:** 23 December 2022, **Accepted:** 10 January 2023

Published Online: 28 January 2023

In-Text Citation: (Bakar et al., 2023)

To Cite this Article: Bakar, M. H. B. A., Kamal, M. E. M., & Ishak, M. S. (2023). The Tendency for Occupational Fraud in Malaysian Small Medium Enterprises and The Effect of Internal Control, Ethical Culture and Awareness on Fraud. *International Journal of Academic Research in Business and Social Sciences*, 13(1), 1398 – 1424.

Copyright: © 2023 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen

at: <http://creativecommons.org/licenses/by/4.0/legalcode>

Vol. 13, No. 1, 2023, Pg. 1398 – 1424

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
<http://hrmars.com/index.php/pages/detail/publication-ethics>



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



www.hrmar.com

ISSN: 2222-6990

The Tendency for Occupational Fraud in Malaysian Small Medium Enterprises and The Effect of Internal Control, Ethical Culture and Awareness on Fraud

Mujida Hanim Binti Abu Bakar

SAE Malaysia Sdn Bhd 12-1, Jalan Bidara 9/2, Bandar Saujana Utama, Sg Buluh 74000
Petaling Jaya Selangor

Mohamad Ezrien Mohamad Kamal, Mohamad Shahril Ishak

Faculty of Accountancy Universiti Teknologi MARA (UiTM), Kampus Puncak Alam 42300
Kuala Selangor, Selangor Malaysia
Email: mohdezrien@uitm.edu.my

Abstract

Occupational fraud requires serious attention due to its detrimental effect towards businesses, nation's economy, and community well-being. Implications led to businesses losing their revenue while affecting global economy negatively and depriving the society of fair share on nation's wealth. Malaysia's businesses have seen cases of occupational fraud among small, medium sized enterprises (SME) representing the significant portion of country's business population of 95%. Such vulnerability among them were due to deficiency in control system. Hence this study aims to assess the influence of internal control, fraud awareness and ethical culture on tendency of occupational fraud within SMEs in Malaysia. Most past studies have focused on public sector and listed companies while limited study was done on SME with inconsistent results. Questionnaire survey was adopted with SME staffs as respondents from 384 SME out of 907,065 establishments. Data collected was analyzed using multiple regression which revealed significant influence by internal control and fraud awareness factors on tendency of occupational fraud among SME staffs, while ethical culture showed insignificant influence. This study has limitation due to limited number of response rate of 33% and sample may not consist of SME whose staffs had committed occupational fraud. The finding provides further evidence on tendency of occupational fraud among SMEs. It will be useful for organizations, especially SMEs in understanding potential areas requiring further attention to remedy occupational fraud.

Keywords: Internal Control, Ethical Culture, Fraud Awareness, Occupational Fraud, Small Medium Enterprise

Research Background

The incidence of occupational fraud has been on an upward trend globally and made publicity, especially within the region of South East Asia (PWC, 2018). Domestically, ACFE Global Economic Crime and Fraud Survey 2018 reported that 41% of Malaysian companies experiencing economic crime within the span of two years, compared to 28% in 2016. In addition, almost every company becomes victim of workplace fraud, with average organization loses around 5 percent of its annual income and median loss estimated at about \$150,000 (ACFE, 2012; ACFE, 2016). Occupational fraud committed by company's own employees accounted for 76 percent of company's revenue losses (Hess & Cottrell, 2015). Furthermore, 69% of the most impactful fraud suffered by organizations was committed by internal fraudsters in which 32% of these perpetrators were senior management (PwC, 2020). Nevertheless, small businesses suffered the most from occupational fraud as they are more vulnerable compared to larger corporations due to the former having fewer anti-fraud controls than the later (ACFE, 2018). Furthermore based on Report To The Nation 2020 Global Study on Occupational Fraud and Abuse by ACFE (2020), small businesses suffered greater loss with a median value of USD 150,000 compared to large businesses with a median loss of USD 140,000. The composition of business establishment as reported by Department of Statistic Malaysia in Economic Census 2016 had also revealed 98.5% of them are SMEs. Hence it is expected that most companies affected by occupational fraud in Malaysia will comprise of SMEs. The case of occupational fraud among SMEs if left unresolved will result in negative impact towards the reputation of organisation, employee's morale as well as stockholders trust (Denman, 2019). This may even made SMEs to encounter difficulty to secure potential financing for growth opportunity due to negative image portrayed to financier. Several critical factors have been identified to influence occupational fraud tendency within SMEs comprising of weak internal control (Ali et al., 2020; State, 2016; COSO, 2013), poor ethical culture (Warrick, 2017; Schwartz, 2013; Bouwman, 2013) and lack of fraud awareness among staffs (Nicholas et al., 2015; Jamieson et al., 2019; KPMG Malaysia Fraud Bribery and Corruption Survey, 2013). Some of the potential ways to eradicate occupational fraud tendency would be by looking at these 3 critical factors and to strengthen them accordingly. Hence, this study focuses on examining whether Internal Control, Ethical Culture and Fraud Awareness have any influence in shaping Occupational Fraud Tendency within SMEs. The findings of this research would enable SMEs to potentially reduce workplace fraud losses, thereby enhancing business practices, including internal controls. Furthermore, it provides knowledge on areas that need to be focused on to minimize occurrence of occupational fraud.

Problem Statement and Objectives

The increasing and constant trend including publicity received relating to occupational fraud cases in companies especially SMEs warrants further investigation. This is in line with the fact that the frequency of fraud in smaller organisations is ten times more than occurrence of fraud in larger organisations (ACFE, 2016). Furthermore, smaller organisations tend to suffer more losses in terms of amount in contrast to bigger organisations due to weak fraud prevention mechanism (ACFE 2020). Such occupational fraud occurrences if left unchecked will be detrimental to the reputation of SMEs which is also the backbone that supports country's economic growth (Denman, 2019). In line with ACFE (2020), occupational fraud can be categorised into 1) asset misappropriation, 2) Corruption, and 3) financial statement fraud. Out of the three categories, Asset misappropriation tops the list with an incidence rate of 83.5 percent as the most significant form of occupational fraud. Several studies have been done

to examine causes for occupational fraud tendency in companies. Nevertheless most had focused on accounting fraud tendency which is part of occupational fraud as seen in Fernandhytia & Muslichah (2020); Lestari et al (2017); Putri & Irwandi (2017) and excluded asset misappropriation. Several other studies have examined occupational fraud cases from the perspective of public listed companies and public sector, while excluded SMEs in their sample as seen in (Gunasegaran et al., 2018; Omar et al., 2016; Mohamed et al., 2017). Few studies have been done by Nawawi & Salin (2018); Sadique et al (2019); Said et al (2018) to examine the relationship of internal control, ethical culture, and fraud awareness on occupational fraud in SME's companies in Malaysia. Nevertheless, their sample numbers were limited with inconsistent results between them, which warrants further investigation. Such inconclusive results may be due to lack of suitable sample to represent SMEs population in Malaysia or inaccurate research methodology adopted. Hence, this study attempts to address the gap in prior studies by examining the influence of Internal Control, Ethical Culture and Fraud Awareness on Occupational Fraud Tendency in Malaysian SMEs covering the perspective of Asset misappropriation, Financial Statements Fraud and corruption. Overall this study attempts to accomplish following objectives:

- i. To examine the influence of internal control on occupational fraud tendency at SMEs in Malaysia.
- ii. To examine the influence of ethical culture on occupational fraud tendency at SMEs in Malaysia.
- iii. To examine the influence of fraud awareness on occupational fraud tendency at SMEs in Malaysia.

Literature Review, Research Framework & Hypotheses

Occupational fraud involves the act of asset misappropriation, corruption and financial statements fraud by an employee in a deliberate way (ACFE, 2020). This includes the misuse of organisation's assets and inventories without guilt especially when there is lack of internal control or opportunity exist to override it by employees (Bishop et al., 2019). Furthermore, it is also known as insider fraud as the act is commonly executed by those trusted with position and power (Suh et al., 2018), which they could leverage on especially within SMEs (Ruankaew, 2016). Fraud triangle theory can be adopted to illustrate why people commit occupational fraud (Mansor, 2017). According to it, one is motivated to pursue occupational fraud due to pressure the perpetrator is facing, opportunity which provides gap to commit such crime without being caught and rationalisation that allows perpetrator to self-justify that such crime is fair and permissible. Hence, a sound and strong internal control is expected to close the gap via opportunity available as well as both ethical culture and fraud awareness programs which would assist in managing people rationalisation to engage occupational fraud.

Occupational fraud may take place in an organisation when there is weak internal control (Ali et al., 2020; State, 2016; COSO, 2013), poor ethical culture (Warrick, 2017; Schwartz, 2013; Bouwman, 2013) and lack of fraud awareness among staffs (Nicholas et al., 2015; Jamieson et al., 2019; KPMG Malaysia Fraud Bribery and Corruption Survey, 2013). Internal control is defined as the commitments by entity's board of directors, management and other employees in designing and running the required process in ensuring the achievement of operational objectives, reporting and compliance with reasonable confidence (COSO, 2013). It is made up of components namely control environment, risk assessment, control activities,

information and communication as well as monitoring activities that could lead to success or failure of any organization (Ali et al., 2020). Prior study shows many benefits of internal controls such as increased adherence to law, rules, policies, and procedures, as well as the ability to combat fraud and abuse (Committee of Sponsoring Organizations, 2013; Omar et al., 2016).

Culture is defined as unwritten rules without aspirational value that drives daily decisions made by employees within an organisation (KPMG Malaysia Fraud Bribery and Corruption Survey, 2013). It can have significant impact on how company is managed and could solve many organisational issues such as occupational fraud (Warrick, 2017). As for fraud awareness, it is defined as crucial techniques used in preventing vulnerability to fraud within organisations (Nicholas et al., 2015) in the form of fraud awareness program which comprise of plans and implementation that could manage fraud risk (Jamieson et al., 2019). Several prior studies have been attempted to assess the potential relationship between these 3 factors and occupational fraud tendency with mixed results.

Internal Control and Occupational Fraud Tendency

Strong internal control becomes a means of preventing fraud. An effective system of internal controls with a good preventive and detective measures, can greatly improve an organization's intolerance for occupational fraud (Suh et al., 2018). This is supported by Murti & Kurniawan (2020) that implementation of an internal control system is very important to reduce and prevent fraud. Putri & Irwandi (2017) observes that internal control effectiveness affects the tendency of accounting fraud. Similarly, Indriasih et al (2020) conclude that internal control has a significant effect on fraud tendency and have positive influences in reducing fraud tendency. In the same vein, The Committee of Sponsoring Organizations of the Treadway Commission, (2013) states that the more effective internal control, the less likely the occurrence of fraud.

Internal controls sometimes thought to be inefficient in preventing management fraud because some senior members of a company, such as the CEO or CFO governs the 'internal control' system, and thereby can hideously manipulate as a way of attaining corporate business objectives, such as success and profit (Suh et al., 2018). Albrecht et al (2018) argues that insufficient internal controls provide fraudsters with the 'opportunity' to commit the crime. Likewise, Lokanan (2014) hold the views insufficient internal control provide opportunities for fraudulent activities to occur. ACFE (2014) reported three major internal control weaknesses that have an impact on the occurrence of fraud, namely: 1) the application of internal control that is not as it should be, 2) the absence of periodic review of the internal control, and 3) a waiver of the existing internal control. This makes the internal control vulnerable to fraud risk. Internal control weakness provides opportunities and motivate people to commit fraud when they are aware of internal control gap (Murti & Kurniawan, 2020). This finding is in line with the KPMG Malaysia Fraud Bribery and Corruption Survey (2013) revelation that lack of internal control is the most important element contributing to the occurrence of major frauds in Malaysia. There are many past research (N'Guilla Sow, Basiruddin, Mohammad, et al., 2018; Tazilah & Hussain, 2015) that study on the effect of internal control in small companies like SMEs. Thus far, previous study (Fernandhytia & Muslichah, 2020; Lestari et al., 2017; Setiawan, 2018) has shown a negative relationship between the internal control and accounting fraud tendency. Most of these

studies only provided evidence specifically on accounting fraud not generally on occupational fraud. This study however attempts to expand the scope of research to examine the influence of internal control on occupational fraud tendency among SMEs in Malaysia. Hence, based on the above arguments, the following hypothesis is formed.

H₁: Internal control has negative influence on occupational fraud tendency among staffs of SMEs in Malaysia

Ethical Culture and Occupational Fraud Tendency

Corporate culture, without a doubt, plays a critical role in influencing and guiding organisational members' behaviour. Suh et al (2018) argues increase in organisational investment on anti-fraud could be beneficial but only a strong ethical corporate culture was significantly associated with the decreased level of perceived fraud in organizations. Similarly, Ocansey & Ganu (2018b) claims that employees' unethical behaviour might be deterred by a strong ethical culture built inside an organisation through management practises and beliefs. Taken together, some culture experts believe that culture is the cure for many organizational problems. As Schwartz (2013) observes, there are three core elements of ethical culture (i.e., ethical leadership, ethical value, ethics training). Therefore, personal integrity is an essential component of leadership and ethical culture. Top management are the most significant leaders, but corporate boards are also accountable for instilling an ethical culture in the organisation. In addition they should communicate clearly and give consistent messages to their employees and must be individuals of high character. Roseline (2019) points out that leadership has an important role in establishing an anti-fraud culture and system, but it also poses the greatest risk of establishing a fraud culture and system. According to Mayer et al (2010), ethical leadership is positively related to ethical climate and ethical climate negatively associated with misconduct. This means that the ethical leadership will make ethical atmosphere in the organization while ethical climate will avoid unethical behaviour.

Employees' attitudes against fraud might be influenced by the organization's culture (Kumar et al., 2018). Integrity and openness are two ethical values that can help to reduce the risk of fraud (Ocansey & Ganu, 2018b). However, corporate culture can negatively influence the management of occupational fraud risk. Cultural factors may influence the perpetrator's action since the perception of right or wrong, justice, morality and loyalty may differ across countries (Rahman & Anwar, 2014). Employees are more likely to observe the crime from the start because almost all occupational frauds are deliberate, disguised, and veiled. Therefore, the current corporate culture should offer employees at all functional and hierarchical levels, a voice to express their concerns, ask questions, and report developing frauds so that corrective action can be implemented (Ocansey & Ganu, 2018b). In a negative work environment, employees' morale and sense of commitment to the organisation will be poor and they will be more likely to commit fraud that will harm the organisation since they will feel no duty to safeguard it. Fourie (2020) observes that the higher level of 'uncertainty avoidance' which is unstructured, unclear, and/or unpredictable would result in cultures being more aggressive, involved, active, emotional, demanding comfort and intolerant. According to Sardžoska & Tang (2012) a favourable working environment will generate job satisfaction while corruption is positively related to unethical behaviour. Other studies by (Wicaksono & Urumsah, 2017) has conclude that a favourable, conducive, comfort, and mutual respect among employees in a work environment will motivate employees to conduct

ethically and make low of opportunity to commit fraud. Hence, based on the above arguments, the following hypothesis is formed:

H₂: Ethical culture has negative influence on occupational fraud tendency among staffs of SMEs in Malaysia.

Fraud Awareness and Occupational Fraud Tendency

Anti-fraud awareness is an effort to raise awareness to prevent fraud from taking place by all parties within organization (Murti & Kurniawan, 2020). Jamieson et al (2019) point out that fraud awareness acts as a prevention measure that reduces the organization's exposure to the risk of fraud. Fraud awareness assists members of an organization in determining the scope of fraudulent actions as well as the risk factors or condition that are linked to the fraud. The organization must make sure that policies and procedures are governing and supports the environment that encourages fraud awareness (Eutsler et al., 2016). The organization may set up an anti-fraud policy that communicates its position in matters concerning fraud. The fraud policy is not only communicating to employees, but it is also shared with customers, suppliers, partners, and investors (Simha and Cullen, 2012). The successes of the anti-fraud awareness are influenced by organizations environment that support the creation of a conducive environment so that all stakeholders can play a role in preventing fraud (Palupi & Santoso, 2017). As Nicholas et al (2015) postulates, there are high chances of an organization's existing fraud management model failure to address emerging fraud risks due to obsolete or outdated.

By increasing employees' fraud awareness among employees, they do not only recognise fraud symptoms and typologies but also encourage them to raise concerns in good faith and on reasonable grounds (Shonhadji & Maulidi, 2021). Peltier-Rivest & Lanoue (2015) states regular awareness training, which is provided to all employees and managers on the organization's ethics policy and internal controls, helps to prevent fraud by reducing ethical rationalisation. According to *Fraud Awareness Training* (2014) by ACFE, most important objective having fraud awareness training is to informs employees about general fraud issues and risks. As with any other policies and procedures, fraud awareness training programs should be regularly evaluated and updated to stay current and effective. The reporting systems can be anonymous to encourage employees to report fraud without the risk of retaliation (Donelson et al., 2016). According to ACFE, (2012) generally, small businesses do not have an anonymous fraud reporting system, a code of conduct, do not perform fraud awareness training and lack internal control. To increase reporting of fraud, employees who witness fraud must be motivated to report it through the medium available to them, including whistle-blower hotlines. Hence, based on the above arguments, the following hypothesis is formed:

H₃: Fraud Awareness has influence on occupational fraud tendency among staffs of SMEs in Malaysia

Figure 1.0 represents the conceptual framework which embodies the whole picture of this study. Internal Control, Ethical Culture and Fraud Awareness are the factors (independent variables) that influence the occupational fraud tendency among SMEs employees (dependent variable).

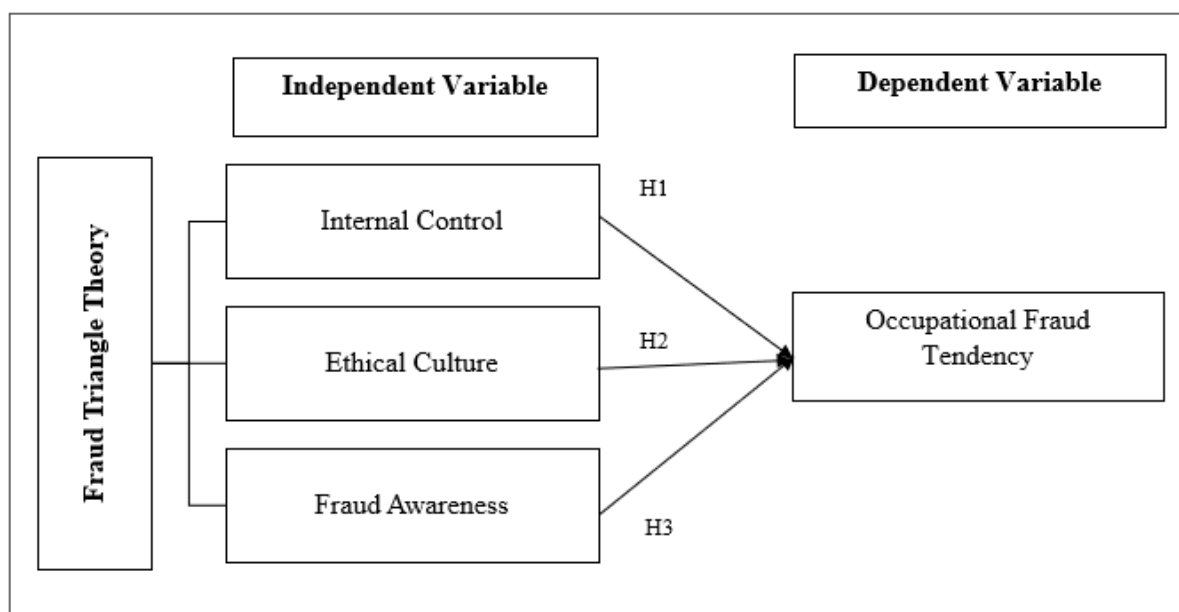


Figure 1.0: Conceptual Framework

Methodology

Sampling Size and Selection

This study adopted purposive sampling method to select participants from specific SMEs where the perception of its employee was evaluated relating to the influence of internal control, ethical culture, and fraud awareness on occupational fraud tendency. The method was employed as the targeted employees had access to vital information, experience and professional skills that were necessary and relevant for this study. Zelditch (1962) states that purposive samples are very useful in obtaining data which not everyone can attend or witness due to specific qualities or characteristics that the samples possess. Rahi, (2017) defines purposive sampling as a method in which a researcher selects a group of people who are knowledgeable on the subject based on his or her own judgement. By using purposive sampling, some subjects are more fit for the study than others and the method is both practical and cost-effective. The aim is not to randomly select samples from all Malaysian employees with the intention of making generalisations, but as a guide for further research with a larger sample size.

This research adopted the Krejcie and Morgan table in line with Krejcie & Morgan (1970) to determine suitable sample size of SMEs. According to it, for the given population of 1,000,000, the required sample size would be 384. Since the total SMEs as reported by Department of Statistics Malaysia (DOSM) in Economic Census 2016 was 907,065, hence the sample size of 384 with 5% confidence interval and 95% confidence level is ideal. This is also supported by Hulland et al (2018); Kline (2015) that a sample size of 100 is considered small, between 100 and 200 is considered medium, and more than 200 is considered large. In addition Roscoe (1975) proposed the rule of thumb to follow when determining sample size, which is the number of participants in a questionnaire should be larger than 30 and less than 500. The survey questionnaires were constructed using Google Form and distributed via WhatsApp application to SMEs employees to complete since online distribution promises high return rate, inexpensive, wider geographical cover, and fast speed response (Aziz et al., 2018). The data collected was analysed using Statistical Package for Social Sciences (SPSS) software for Windows Release 26.

Questionnaire Design

The structured questionnaires were being formed based on previous literature to suit the local context of occupational fraud in Malaysian SME's. It consisted of five sections with total of 35 questions. Section A comprised of 7 questions which were designed to capture relevant information on respondents' demographic profile such as age, designation, years of experience, gender, and qualifications.

Section B assessed the perception of the SMEs employees on occupational fraud tendency in the organisation. Meanwhile, section C asked about participants' perception on the implication of internal control circumstances which can lead to occupational fraud tendency. Section D reinforced ethical culture as an effective measure in reducing and deterring the occurrence of occupational fraud tendency. Finally, Section E focussed on employees view on fraud awareness as a way of preventing and detecting occupational fraud tendency. Respondents were instructed to indicate in each statement the extent to which they agree based on a five-point Likert-scale, ranging from "1" (Strongly Disagree), "2" (Disagree), "3" (Neutral), "4" (Agree) to "5" (Strongly Agree).

Table 1.0

Structure of the Questionnaire

SECTION	DETAILS	NO. OF QUESTIONS	REFERENCES
A	Demographic Background	7	Said et al (2018)
B	Occupational Fraud Tendency	7	Suh et al (2018)
C	Internal Control	7	Ali et al (2020)
D	Ethical Culture	7	Ocansey & Ganu (2018)
E	Fraud Awareness	7	Siregar & Tenoyo (2015)

Variables Measurement

The survey instrument was customized to determine the influence of internal control, ethical culture, and fraud awareness on occupational fraud tendency among staff of SMEs in Malaysia. This study has used the quantitative method to achieve the objectives of this research. The questionnaire was designed in bilingual language which is English with Malay translation to obtain respondent understanding and feedback appropriately. The instrument comprised of closed ended questions only. These closed questions provided five Likert scale of agreement from strongly disagree (1) to strongly agree (5) answers to encourage respondents to complete all questions and to enable them to express their views on the variables under study.

Table 1.1

Summary of the Development of the Research Instrument

VARIABLES OF THE STUDY	CODE	MEASUREMENT
<u>Dependent Variable</u> Occupational Fraud Tendency	OFT	The perception of the SMEs employees on Occupational Fraud Tendency
<u>Independent Variable</u> Internal Control	IC	The effectiveness of internal control as fraud prevention mechanisms.
Ethical Culture	EC	Ethical culture as an effective measure in reducing and deterring the occurrence of fraud.
Fraud Awareness	FA	Employees view on fraud awareness implementation as a way of preventing and detecting fraud.

Data Analysis Technique

Descriptive statistics were used to describe and acquire better understanding of the characteristics of a particular data set by providing summaries of the sample and measurement such as frequency distribution, measures of central tendencies and the dispersion of variables. It was also utilised to identify outliers, data input errors as well as to check for data symmetry, normality, and others.

Reliability Analysis

Cronbach's Alpha Reliability Test was run to ensure internal consistency and similar attributes on the items that made up the scale (Pallant, 2016). This test is used to test the consistency of respondents' answers to all the questions constructed in the questionnaire with value should be above 0.7 and most preferably above 0.8 to be considered reliable (Pallant, 2016).

Normality Test

The two well-known tests of normality, namely, the Kolmogorov–Smirnov test and the Shapiro–Wilk test are most widely used methods to test the normality of the data. (Varsha et al., 2017). The Shapiro–Wilk test is better for small sample sizes (<50 samples), while it can also handle bigger sample sizes, whereas the Kolmogorov–Smirnov test is better for $n \geq 50$. The null hypothesis for both tests asserts that the data are drawn from a normally distributed population. The null hypothesis is accepted when $P > 0.05$, and the data are said to be normally distributed. When the skewness number is positive, it means the distribution has a lot of low scores (Pallant, 2016). However, if the skewness is negative, it shows that the distribution has many high scores (Pallant, 2016). Kurtosis is a measure of the peakiness of a distribution. A positive kurtosis indicates that there is a pointy and heavy-tailed distribution, whereas a negative kurtosis value shows that the distribution is flat and light-tailed (Pallant, 2016).

Pearson's Correlation Analysis

A Pearson correlation matrix shows the significance, direction, and strength of the bivariate relationships among all variables at an interval or ratio level (Sekaran & Bougie, 2016). Pallant (2016) states that correlation analysis describe the strength and direction of the linear relationship between two variables. Pearson correlation coefficients (r) can range from -1 to $+1$ (Pallant,2016). According to Cohen (1988), if the absolute value of r is 0.10, the relationship between the variable is small, when the value of r is 0.30, it is medium and the relationship between the variable is strong when the value of r is above 0.50. This can be shown in the Table 1.2 below.

Table 1.2

Pearson's Correlation Coefficient

<i>r-value</i>	Relationship
0.10-0.29	Weak
0.30-0.49	Moderate
0.50-1.00	Strong

Assumptions of Pearson

A Pearson correlation test requires five assumptions to be met. The first need is that variables must be interval or ratio, and second requirement is that variables must be normally distributed appropriately. Third, there must be a linear relationship between the two variables. Fourth, outliers are either eliminated or kept to a minimum, and homoscedasticity in the data must be present (Laerd Statistics, 2018). A normal distribution of data is required for a Pearson correlation test; if this is not met, researchers have two options. First, try to figure out why the data are not normally distributed or using a tool that does not require normality (Buthmann, 2019). The Shapiro-Wilk test is one of the most common tests used to test the normal distribution of data (Das & Imon, 2016). The Shapiro-Wilk test was employed to test the normal distribution using the alpha level of 0.05 from the G*Power analysis as the predefined threshold, anything over 0.05 was enough evidence to show a normal distribution. If a researcher fails to meet any of the five Pearson correlation assumptions, a nonparametric alternative to the Pearson is Kendall's Tau-b can be used.

Multiple Regression Analysis

Multiple regression analysis is used to identify the relationship between two or more variables to see how the variables relate to one another. According to Pallant (2016), multiple regression can be used to investigate the relationship between one dependent variable and a number of independent variables. This is aligned with Sekaran and Bougie (2016) who stated that this analysis uses more than one independent variable to examine the relationship with the dependent variable. Multiple linear regressions are used to determine the association between all independent variables. Before conducting regression analysis, all variables were checked for normality, multicollinearity, and outliers (Dalnial et al., 2014). Normality assumption is met based on the skewness and kurtosis after transformation. Multicollinearity assumes one independent variable is to be redundant with the other. Independent variables have little predictive value over other independent factors in such circumstances of multicollinearity. Multiple linear regression models are chosen to test the effect of multiple independent variables (internal control, ethical culture, and fraud awareness) on the on the dependent variable (occupational fraud tendency).

The regression equation to determine the relationship is as follow:

	$= \alpha + \beta_1.X_1 + \beta_2.X_2 + \beta_3.X_3 + \epsilon$
Y	
Occupational Fraud Tendency (OFT)	$= \alpha + \beta_1 IC + \beta_2 EC + \beta_3 FA + \epsilon$
Where:	
OFT	: Occupational Fraud Tendency
IC	: Internal Control
EC	: Ethical Culture
FA	: Fraud Awareness
α	: Constant or intercept
ϵ	: Error

Assumptions of Regression

The assumptions to be considered are multicollinearity, outliers, normality, linearity and lastly homoscedasticity. According to Pallant (2016), multicollinearity refers to the relationship among the independent variables. It exists when the independent variables are highly correlated ($r=0.9$ and above). As a rule of thumb, multicollinearity may be a problem if a correlation is more than 0.70 in the correlation matrix formed by all independent variables (Cohen, 1988). Multicollinearity does not contribute to a good regression model; therefore, it must be tested first before proceeding to multiple regression analysis.

The next assumption of multiple regression is outliers which means very high or very low scores (Pallant, 2016). The outliers need to be considered in multiple regression since multiple regression is very sensitive to outliers which can lead to a dramatic effect on the correlation coefficient, particularly in small samples (Pallant, 2016). By checking for extreme scores in the initial data screening process for the independent variable and dependent variables, it may avoid outliers to occur in the results of multiple regression analysis. A scatter plot can be used to check for outliers. The third assumption is normality which refers to ideally scores on each variable should be normally distributed (Pallant, 2016). Normality can be examined by inspecting the Normal Probability Plot (P-P) of the Regression Standard Residual. The next assumption is linearity. According to Pallant (2016), linearity refers to the presence of a straight-line relationship between each pair of dependent variables. This assumption can be accessed by generating scatter plots between each pair of variables. Finally, assumption is homoscedasticity. It can be assessed by a visual examination of the scatter plot of the independent and dependent variables (Pearson, 2012). The assumption can be checked by using Scatter plot to see whether the variability in scores for variable X is similar at all values of variable Y (Pallant, 2016).

Results & Conclusion

This study has received 33% response rate out of 384 respondents sampled, making the actual total respondents of 127. It is understood from the literature that a response rate of 30% is considered as good and acceptable to support the study. The respondents came from various industry background such as 64.6% from services industry which is the biggest category, followed by 15.7% from manufacturing, 14.2% from construction, 3.9% from agriculture and 1.6% from mining. Descriptive test was performed on data collected from

respondents measuring each variable of “Occupational Fraud Tendency”, “Internal Control”, “Ethical Culture” and “Fraud Awareness”. As for the descriptive analysis on “Occupational Fraud Tendency”, the Mean and Standard Deviation of each responses were as per table 1.3.

Table 1.3

The Mean and Standard Deviation on Occupational Fraud Tendency

Statement	Mean	Std. Deviation
The more satisfied the employee, the more likely he or she was to engage in fraudulent act.	1.83	0.880
People who have access or play the management role are not in the best positions to commit financial fraud in their organization.	1.77	0.809
Employees not likely to commit fraud if working conditions are undesirable, stressful, or unrecognised job performance.	1.71	0.808
Separation of duties create opportunity for employees to commit fraud.	1.54	0.743
The motivation of employees to commit fraud is not because of their own greed and personal gain.	1.53	0.711
Fraud is more prevalent in organisation that have controls, trust, and ethical standard.	1.29	0.473
Strong internal control increases the opportunity for fraud to be committed.	1.27	0.479

Most respondents have agreed that occupational fraud tendency within their organisation can be overcome with the right type of attitudes among staffs and with the right environmental setting in the organisation. This is proven with overall mean score of 1.56 for Occupational Fraud Tendency, which means potential for occupational fraud to happen can be minimised.

As for the descriptive analysis on “Internal Control”, the Mean and Standard Deviation of each responses were as per table 1.4. Majority of respondents tend to agree with all 7 statements that indicate the importance of having internal control in preventing fraud with mean score higher than 4. This is proven with overall mean score of 4.43 which is higher than 3 for Internal Control, which means potential for occupational fraud to happen can be prevented by having Internal Control.

Table 1.4

The Mean and Standard Deviation on Internal Control

Statement	Mean	Std. Deviation
The policy and procedure of effective and efficient internal control shall be applied correctly to prevent fraud in organization.	4.62	0.518
Establishing a robust and efficient internal control system is expected to prevent employee fraud within an organization.	4.57	0.557
Internal control help to minimize the occurrence of fraud.	4.52	0.532
Internal control weaknesses such as lack of management oversight review, inadequate system, lack of independent audit allowed fraud to be committed in organization.	4.51	0.641
Internal control aims to keep away companies from risk and threats that could potentially harm or create damage in the organization.	4.50	0.576
Do you agree that poor internal controls as the motives for fraud occurrences in an organisation?	4.28	0.784
Small companies more vulnerable to occupational fraud due to lack of internal control as compared to large companies.	4.02	1.031

In terms of descriptive analysis on "Ethical Culture", the Mean and Standard Deviation of each responses were as per table 1.5.

Table 1.5

The Mean and Standard Deviation on Ethical Culture

Statement	Mean	Std. Deviation
Transparent, frequent, and clear communication between management and employees should well execute in the organization.	4.69	0.527
Top management should create and sustain an ethical corporate culture that integrates an organization's core values, motivates employees in doing what is right.	4.67	0.489
If the working environment is enjoyable, supportive, respectful, fair, ethical, tends to be higher job satisfaction and lower fraud risk.	4.66	0.538
If ethical culture is in place, it becomes easier to design and implement effective organizational controls.	4.66	0.475
A high ethical culture created within an organization through the practices and values of management can deter unethical behaviour of employees.	4.65	0.555
Unhealthy organizational cultures are likely to have a negative impact on performance, morale, motivation, teamwork, customer relation, services, and loyalty.	4.61	0.489
Creating an organizational culture of ethical values such as integrity and openness can help to reduce the risk of fraud.	4.52	0.523

Majority of respondents tend to agree with all 7 statements that indicate the importance of embracing strong ethical culture to prevent fraud with mean score higher than 4. This is proven with overall mean score of 4.64 which is higher than 3 for Ethical Culture, which means potential for occupational fraud to happen can be prevented by having dedicated ethical culture. As for the descriptive analysis on "Fraud Awareness", the Mean and Standard Deviation of each responses were as per table 1.6.

Table 1.6
The Mean and Standard Deviation for Fraud Awareness

Statement	Mean	Std.Deviation
All staff members must aware their role in mitigating occupational fraud.	4.72	0.502
Management must encourage employees to report any kind of fraud and wrongdoing act anonymously.	4.66	0.538
A periodic fraud awareness and training programs should be provided to all employees.	4.61	0.551
Every organization should have a system in place for the anonymous reporting of suspicions of fraud, corruption, or misconduct.	4.61	0.522
Fraud awareness training is an effective way to equip employees with the mechanism and knowledge to recognize and report suspicious activity.	4.57	0.584
It is better to prevent fraud from occurring than to detect and investigate the fraud.	4.55	0.698
Fraud awareness mechanisms may include employee education, fraud-report hotlines, and the establishment of proper ethical tone.	4.55	0.587

Majority of respondents tend to agree with all 7 statements that indicate the importance of having strong fraud awareness to prevent fraud with mean score higher than 4. This is proven with overall mean score of 4.61 which is higher than 3 for Fraud Awareness, which means potential for occupational fraud to happen can be prevented by having strong fraud awareness among staffs.

Instrument Validation

In ensuring the internal consistency of the items used in the scale of questionnaire, reliability test was conducted utilising Cronbach's Alpha. The value should be within the range of 0.7 and above to be considered reliable and having high internal consistency of the items in the scale (Pallant, 2016). Table 1.7 presents the Cronbach's alpha values of the four variables, ranging from 0.768 (Occupational Fraud Tendency), 0.874 (Internal Control), 0.901 (Fraud Awareness) and 0.891 (Fraud Awareness).

Table 1.7

Cronbach's Alpha values for 4 variables.

Variables	No. of Items	Cronbach's Alpha
Occupational Fraud Tendency	7	0.768
Internal Control	7	0.874
Ethical Culture	7	0.901
Fraud Awareness	7	0.891

All 4 Variables have Cronbach's alpha values within the range above 0.7 to 0.9 which indicate the questions crafted were reliable and respondents' responses were consistent.

Normality Test

A normality test is carried out by using the Skewness and Kurtosis value for Occupational Fraud Tendency, Internal Control, Ethical Culture, and Fraud Awareness. The normal distribution of data is said to be perfectly normal when the value of skewness and kurtosis is zero, which is uncommon occurrence in the social sciences (Pallant,2016). The summary of the statistics is presented in Table 1.8.

Table 1.8

Summary Statistics of Skewness and Kurtosis: Test of Normality

Variables	Skewness value	Kurtosis value
Occupational Fraud Tendency	0.425	-0.729
Internal Control	-0.362	-1.196
Ethical Culture	-0.662	-1.107
Fraud Awareness	-0.862	-0.402

Table 1.8 shows that the skewness and kurtosis value for all the variables are in the range of 0.402 to -1.196 can be considered in the acceptable ranges of normal distributed data. The value of skewness and kurtosis in the range of -2 to +2 is considered as a normal distribution (Pallant, 2016). This indicates that the mean score for Occupational Fraud Tendency, Internal Control, Ethical Culture, and Fraud Awareness are normally distributed.

Correlations

The correlation analysis is carried out to determine relationships between variables, namely Occupational Fraud Tendency, Internal Control, Ethical Culture, and Fraud Awareness. The variables' values are found to be normally distributed and therefore the analysis is carried out by using a parametric correlation tool, which is Pearson Coefficient Correlation. Correlation uses the linear relationship for determining the association between two variables. A Pearson Correlation test used in this study to examine whether there is any multicollinearity problems among the variables. According to (Pallant, 2016) multicollinearity exists when the independent variables are highly correlated ($r=.9$ and above). *Table 1.9* shows the summary of bivariate analysis to test the correlation between one variable to another. According to the statistical findings, the correlation values between the variables ranged between $-.684$ and 0.788 . This indicates that there is no multicollinearity problem among the variables since none of the correlation was more than 0.9 .

Table 1.9

Pearson Correlation Matrix among Variables

Variable	IC	EC	FA
Occupational Fraud Tendency	-0.684**	-0.653**	-0.684**
Internal Control	1	0.724**	0.649**
Ethical Culture		1	0.788**
Fraud Awareness			1

Correlation is significant at the 0.01 level (2-tailed)

Notes: OFT: Occupational Fraud Tendency IC: Internal Control, EC Ethical Culture,

There is a strong negative relationship between internal control and occupational fraud tendency ($r = -0.684$; $p < 0.01$). This indicates an increase in internal control is associated with a decrease in occupational fraud tendency, and vice versa. The negative relationship is supported by previous literature (Murti & Kurniawan, 2020; Nawawi & Salin, 2018). Ethical culture is strongly and negatively correlated with occupational fraud tendency ($r = -0.653$; $p < 0.01$). This indicates an increase in ethical culture is associated with a decrease in occupational fraud tendency, and vice versa. The negative relationship is supported by previous literature (Ocansey & Ganu, 2018a; Suh et al., 2018). As for fraud awareness, it has negative strong relationship with Occupational Fraud Tendency ($r = -0.684$; $p < 0.01$). This an increase in fraud awareness is associated with a decrease in occupational fraud tendency, and vice versa. The negative relationship is supported by previous literature (Murti & Kurniawan, 2020; Nicholas et al., 2015).

Regression Analysis

The result presented in *Table 1.10* reveals the result of multiple regression which can be represented by ($F = 54.222$, $P < 0.05$). This indicates that the model is statistically significant. Furthermore, the R^2 value ($R^2 = 0.569$) also indicates that the model is fit and acceptable with regards to the argument proffered by Hair et al (2010) which assert that a model with R squared value greater than 0.10 is considered fit. The result also implies that the independent variables (Internal Control, Ethical Culture, and Fraud awareness) collectively explain 56.9% of the variation of the dependent variable (Occupational Fraud Tendency). Another total of 44.1% of the variation of the occupational fraud tendency is accounted for other unknown variables. Therefore, the effect of internal control, ethical culture, and fraud awareness towards occupational fraud tendency, is considered high. F-test is used to determine the overall significance of the model. The regression analysis of variance (ANOVA) for the variables shows that multiple regression is significant [$F = 54.222$, $p = .000^b$]. This result suggests that at least one of the variables has a significant linear relationship with occupational fraud tendency.

Table 1.10

Estimated Regression Equation

Model	B	Std Error	Beta (b)	t	Sig
Occupational Fraud Tendency	5.302	0.319		16.634	0.000
Internal Control	-0.344	0.078	-0.383	-4.390	0.000
Ethical Culture	-0.098	0.122	-0.086	-0.800	0.425
Fraud Awareness	-0.382	0.102	-0.367	-3.756	0.000
F Change					54.222
R ₂					0.569
Adjusted R ₂					0.559

Significant level: $p < 0.01^{***}$, $p < 0.05^{**}$

The result depicted in Table 1.10, demonstrates that internal control has a negative and significant influence on occupational fraud tendency ($\beta = -0.383$, $p < 0.05$). This result indicates that 38.3% of the variance in occupational fraud tendency is explained by the variance in internal control ($t = -4.390$). As such, this finding provides evidence that internal control is significant for preventing occupational fraud tendency. Thus, H1 is supported. The result presented in Table 1.10 shows that there is a negative but insignificant influence of the ethical culture on occupational fraud tendency ($\beta = -0.086$, $P > 0.05$). Thus, the variance in occupational fraud tendency is not explained by the variance in ethical culture ($t = -0.800$). Therefore, H2 is not supported. The result presented in Table 1.10, reveals that fraud awareness has a negative and significant influence on occupational fraud tendency ($\beta = -0.367$, $p < 0.05$). This result indicates that 36.7% of the variance in occupational fraud tendency is explained by variance in fraud awareness ($t = -3.756$). Therefore, H3 is supported. This result suggests that occupational fraud tendency and fraud awareness are important to prevent employee from committing fraud.

Table 1.11

Summary of the Hypotheses Result

NO	VARIABLES	HYPOTHESES STATEMENT	RESULT
H1	Internal Control	Internal control has influence on occupational fraud tendency among staffs of SMEs in Malaysia.	Significant
H2	Ethical Culture	Ethical culture has influence on occupational fraud tendency among staffs of SMEs in Malaysia.	Not Significant
H3	Fraud Awareness	Fraud Awareness has influence on occupational fraud tendency among staffs of SMEs in Malaysia.	Significant

Discussion and Conclusion

The primary aim of this study is to examine the influence of internal control, ethical culture, and fraud awareness on occupational fraud tendency at SMEs in Malaysia. Hypothesis 1 (H1) is developed to determine the influence of internal control on occupational fraud tendency among staffs of SMEs in Malaysia. The result of the hypothesis shows significant negative influence between internal control and occupational fraud tendency. The results may indicate that, an effective internal control could prevent an occurrence of fraud as argued by (Murti & Kurniawan, 2020) where implementation of an internal control system is very important to reduce and even prevent fraud. Similarly, (Nawawi & Salin, 2018) assert that a strong internal control is related with the reduction of occupational frauds in an organization. This result is consistent with the previous study done by (Suh et al., 2018) which suggested that an effective system of internal controls with a good preventive and detective measures, can greatly improve an organization's intolerance for occupational fraud. Other studies by (Said et al., 2018) highlighted strong internal controls must be adopted to create an atmosphere that discourages fraud.

The second objective of the study is to examine the influence of ethical culture on occupational fraud tendency at SMEs in Malaysia. Hypothesis 2 (H2) predicts ethical culture has significant influence on occupational fraud tendency among staffs of SMEs in Malaysia. Contrary to expectations, the result shows insignificant influence between ethical culture and occupational fraud tendency. According to (Roseline, 2019), the success of corporate culture in eliminating occupational fraud tendency depends heavily on quality of leadership. A new study by the Anti-Fraud Collaboration emerged that organisational culture has as a pivotal role in enabling prevention, mitigation, and detection of misconduct and financial fraud but leaders must actively shape and assessing corporate culture. Another possible explanation is that the success of corporate culture in eliminating occupational fraud tendency subject to whether all employees from various hierarchical levels able to freely inquire and whistle blow potential fraud without limitation and threat (Schwartz, 2013).

The third objective of the study is to examine the influence of fraud awareness on occupational fraud tendency at SMEs in Malaysia. Hypothesis 3 (H3) expects a significant influence between fraud awareness and occupational fraud tendency. The result from the study indicates that, there is significant negative influence between fraud awareness and occupational fraud tendency among staff of SMEs in Malaysia. The fraud awareness is supposed to increase employees understanding of the scale of fraud threats and allowed company to take appropriate steps to reduce the tendency and size of losses. This is similar to (Murti & Kurniawan, 2020) which indicates that anti-fraud awareness is an effort to promote awareness of the importance of combating fraud by all members of the organisation. This relationship as indicates by ACFE (2012) that most fraud is detected through employee tips, and company with anti-fraud employee training programmes at various levels. The fraud awareness program requires clearly defined and implementation plans aim at reducing fraud risk and evaluating the organization's effectiveness in managing the business risk of fraud (Jamieson et al., 2019). Furthermore (Peltier-Rivest & Lanoue, 2015) states regular fraud training, which is provided to all employees and management regarding the organization's ethics policy and internal controls, is important in combating fraud by minimizing the ethical rationalization often adopted by fraudsters (Cressey, 1973). This result is likely to be related

to (Maulidi, 2016) who claims that a whistle-blower system and staff awareness of fraud can empirically reduce and mitigate illegally reported financial fraud.

Like most prior studies, this study is subject to several limitations. The study is limited to only SMEs employees in Malaysia which results to a small amount of sample for analysis. It would be meaningful if future researchers, for instance, can cater all business types in Malaysia for diverse sample of analysis and not limited to SMEs employees only. The next limitation is the used of data instead of using real fraud statistics and restricted fraudulent case reports. The information obtained for reported fraudulent cases in SMEs company might be reliable for the research. Furthermore, this study focuses on internal control, ethical culture, and fraud awareness. There are still many other factors that can lead to occupational fraud tendency can be further investigate. Therefore, further study is recommended to continue this research by incorporating a variety of other relevant factors, and for a wider scope. Despite the limitations, hopefully, this study will provide valuable points on factors that lead to occupational fraud tendency. It is important to ensure an organization to have fraud prevention control and employees with good attitude, highly ethical and great awareness in mitigating occupational fraud. Therefore, the study recommends that future research should examine occupational fraud in specialised type of sectors or specialised industries. Moreover, it will be interesting for future studies to use qualitative method such as interview of known fraudsters to examine their actual motivations and rationalizations including how they committed fraud. This is because fraudsters are more likely to understand the circumstances of the fraud occurrences. Future research could look upon the role of preventing, detecting, and investigating fraud, whether these roles should be segregated in the organization, using both qualitative and quantitative approaches. The use of survey method combined with qualitative approach such as a personal face-to-face interview might support the findings from the survey and enhance the ability to comprehend the scopes addressed.

This study amplifies the fact that the existence of effective internal control as well as fraud awareness among SME's staffs would be critically necessary to overcome occupational fraud tendency. The study contributes further on existing knowledge relating to occupational fraud within SME in Malaysia and factors influencing it, which was deemed as limited in number based on previous studies. It is also in support of "Agency Theory" which highlighted the importance of internal control system's role in mitigating potential abuse of power and wrongdoings such as fraud.

References

- Abayomi, S. O., & Abayomi, S. O. (2016). Personal Ethics and Fraudster Motivation: The Missing Link in Fraud Triangle and Fraud Diamond Theories. *International Journal of Academic Research in Business and Social Sciences*, 6(2), 159–165. <https://doi.org/10.6007/ijarbss/v6-i2/2020>
- ACFE. (2016a). Report To the Nations on Occupational Fraud and Abuse: 2016 Global Fraud Study. *Association of Certified Fraud Examiners*, 1–92.
- Albrecht, C. O., Holland, D. V., Skousen, B. R., & Skousen, C. J. (2018). The significance of whistleblowing as an anti-fraud measure. *Journal of Forensic & Investigative Accounting*, 10(1), 1–13. <http://web.nacva.com.s3.amazonaws.com/JFIA/Issues/JFIA-2018-No1-1.pdf>
- Ali, M., FarhanahAyop, N., Ghani, E. K., & Hasnan, S. (2020). The Effect of Employees'

- Perceptions on Internal Control System Mechanisms Towards Employee Fraud Prevention. *Journal of Critical Reviews*, 7(18), 972–986.
- Association of Certified Fraud Examiners. (2012). Report To The National On Occupational Fraud and Abuse, Global Fraud Study 2012. *ACFE Report*, 20, 75–87. https://www.acfe.com/uploadedFiles/ACFE_Website/Content/rtnn/2012-report-to-nations.pdf
- Association of Certified Fraud Examiners (ACFE). (2018). *Report To the Nations 2018 Global Study on Occupational Fraud and Abuse*.
- Association of Certified Fraud Examiners (ACFE). (2020). Report to the nations on occupational fraud and abuse: 2020 global fraud study. *Acfe*, 88.
- Aziz, N. D., Nawawi, A. H., & Ariff, M. N. R. (2018). Survey on Facility Managers Perception through Instant Message via Whatsapp Application. *Environment-Behaviour Proceedings Journal*, 3(7). <https://doi.org/10.21834/e-bpj.v3i7.1154>
- Banarescu, A. (2015). Detecting and Preventing Fraud with Data Analytics. In *Procedia Economics and Finance* (Vol. 32, pp. 1827–1836). [https://doi.org/10.1016/s2212-5671\(15\)01485-9](https://doi.org/10.1016/s2212-5671(15)01485-9)
- Barkhatov, V., Pletnev, D., & Campa, A. (2016). Key Success Factors and Barriers for Small Businesses: Comparative Analysis. *Procedia - Social and Behavioral Sciences*, 221, 29–38. <https://doi.org/10.1016/j.sbspro.2016.05.087>
- Bouwman, C. H. S. (2013). The role of corporate culture in mergers and acquisitions. *Mergers and Acquisitions Practices, Performance and Perspectives*, May, 109–131.
- Carol, C., Bishop, Marks, D. R. H. J. T., & Richard, A., Riley, J. (2019). Unique Characteristics of Management Override Fraud Cases. *Journal of Forensic and Investigative Accounting*, 11(3), 503–523.
- Davis, M. V., & Harris, D. (2020). Strategies to Prevent and Detect Occupational Fraud in Small Retail Businesses. *International Journal of Applied Management and Technology*, 19(1). <https://doi.org/10.5590/ijamt.2020.19.1.04>
- Delice, A. (2001). The sampling issues in quantitative research. *Educational Sciences: Theory & Practices*, 10(4), 2001–2019.
- Denman, D. E. (2019). 2018 Report on Occupational Fraud: Results and How Companies Can Protect Their Assets. *Journal of Accounting and Finance*, 19(4), 97–112. <https://doi.org/10.33423/jaf.v19i4.2175>
- Enofe, A. O., Omagbon, P., & Ehigiator, F. I. (2015). Forensic Audit and Corporate Fraud. *IARD International Journal of Economics and Business Management*, 1(7), 1–10.
- Fernandhytia, F., & Muslichah, M. (2020). The Effect of Internal Control, Individual Morality and Ethical Value on Accounting Fraud Tendency. *Media Ekonomi Dan Manajemen*, 35(1), 112. <https://doi.org/10.24856/mem.v35i1.1343>
- Fourie, H. (2020). *ETHICS , CULTURES , FRAUD AND CORRUPTION – THE. March*. <https://doi.org/10.13140/RG.2.2.27820.00647>
- Fraud Awareness Training*. (2014).
- Frazer, L. (2016). Internal Control: Is it a Benefit or Fad to Small Companies? A Literature D...: Search Everything at Mercyhurst University. *Journal of Accounting & Finance*, 16(4), 2016. <http://eds.b.ebscohost.com.ezproxy.mercyhurst.edu/eds/pdfviewer/pdfviewer?vid=2&sid=56070cbb-a50a-4761-a25c-8272398d0dd1%40sessionmgr103>
- Gunasegaran, M., Basiruddin, R., Abdul Rasid, S. Z., & Mohd Rizal, A. (2018). The case studies of fraud prevention mechanisms in the Malaysian medium enterprises. *Journal of*

- Financial Crime*, 25(4), 1024–1038. <https://doi.org/10.1108/JFC-05-2017-0034>
- Harned, P. J., Kann, R., Bongino, P., Lang, K., & Brooks, N. (2016). *Measuring Risk and Promoting Workplace Integrity Global Business Ethics Survey™*. www.ethics.org
- Hess, M. F., & Cottrell, J. H. (2016). Fraud risk management: A small business perspective. *Business Horizons*, 59(1), 13–18. <https://doi.org/10.1016/j.bushor.2015.09.005>
- Hulland, J., Baumgartner, H., & Smith, K. M. (2018). Marketing survey research best practices: evidence and recommendations from a review of JAMS articles. *Journal of the Academy of Marketing Science*, 46(1), 92–108. <https://doi.org/10.1007/s11747-017-0532-y>
- Human Resources Development Fund (HRDF). (2019). *HRDF HUMAN CAPITAL REPORT. SMEs in Malaysia: Training Landscape among SMEs*. 1–5. https://www.hrdf.com.my/wp-content/uploads/2016/12/11.-issue_Sept01_2019-Human-Capital-Report-SMEs-in-Malaysia.pdf
- Ibrahim, U., Rose, S. S., & Mohamed, M. (2015). The types, costs, prevention and detection of occupational fraud: The ACFE perspective. *2nd International Conference on Accounting Studies (ICAS) 2015, August*, 501–505.
- Inaya, L., & Isito, E. O. (2016). An empirical analysis of social impact of fraud on the Nigerian banking industry(scinap). *Research Journal of Finance and Accounting*, 7(4), 12–17.
- Indriasih, D., Rahmatika, D. N., & Fajri, A. (2020). What (why) does factor influence fraud tendency in public sector? *Jurnal Inovasi Ekonomi*, 5(03), 93. <https://doi.org/10.22219/jiko.v5i03.9894>
- Jalil, F. Y. (2018). Internal Control, Anti-Fraud Awareness, and Prevention of Fraud. *Etikonomi*, 17(2), 297–306. <https://doi.org/10.15408/etk.v17i2.7473>
- Jamieson, D., Awolowo, I. F., Garrow, N., Winfield, J., & Bhaiyat, F. (2019). Financial shenanigans: The importance of anti-fraud education. *Journal of Governance and Regulation*, 8(3), 58–63. https://doi.org/10.22495/jgr_v8_i3_p5
- Pallant, J. (2001). *SPSS Survival Manual Book*. 1–295.
- Kassem, R., & Higson, A. W. (2016). External auditors and corporate corruption: Implications for external audit regulators. *Current Issues in Auditing*, 10(1), P1–P10. <https://doi.org/10.2308/cia-51391>
- Kazemian, S., Said, J., Hady Nia, E., & Vakilifard, H. (2019). Examining fraud risk factors on asset misappropriation: evidence from the Iranian banking industry. *Journal of Financial Crime*, 26(2), 447–463. <https://doi.org/10.1108/JFC-01-2018-0008>
- Kline, R. B. (2015). *TXTBK Principles and practices of structural equation modelling Ed. 4 ****. In *Methodology in the social sciences*.
- KPMG Malaysia Fraud Bribery and Corruption Survey. (2013). *KPMG Malaysia Fraud, Bribery and Corruption Survey 2013. KPMG Forensic*, 1–72.
- Kumar, K., Bhattacharya, S., & Hicks, R. (2018). Employee perceptions of organization culture with respect to fraud – where to look and what to look for. *Pacific Accounting Review*, 30(2), 187–198. <https://doi.org/10.1108/PAR-05-2017-0033>
- Kummer, T. F., Singh, K., & Best, P. (2015). The effectiveness of fraud detection instruments in not-for-profit organizations. *Managerial Auditing Journal*, 30(4–5), 435–455. <https://doi.org/10.1108/MAJ-08-2014-1083>
- Lestari, E. B., Tarjo, -, & Prasteyono, -. (2017). the Factors Affecting Tendency of Fraud in Government Sector. *Journal of Auditing, Finance, and Forensic Accounting*, 5(2), 67. <https://doi.org/10.21107/jaffa.v5i2.3408>
- Levine, R., Kaplowitz, M. D., & Hadlock, T. D. (2004). A Comparison of Web and Mail Survey Response Rates. *Public Opinion Quarterly*, 68(1), 94.

- Li, K., Bonsu, O.-A. M., Asare, K. E., Dominique, B. J.-J., & Johnson, B. (2018). Accountants Perception on Effectiveness of Corporate Fraud Detection and Prevention Methods in Ghana. *International Journal of Accounting and Financial Reporting*, 8(3), 78. <https://doi.org/10.5296/ijafr.v8i3.13398>
- Lokanan, M. E. (2014). How senior managers perpetuate accounting fraud? Lessons for fraud examiners from an instructional case. *Journal of Financial Crime*, 21(4), 411–423. <https://doi.org/10.1108/JFC-03-2013-0016>
- Malimage, M. (2019). Application of Underutilized Theories in Fraud Research: Suggestions for Future Research. *Journal of Forensic & Investigative Accounting*, 11(1), 33–49.
- Mangala, D., & Kumari, P. (2015). Corporate Fraud Prevention and Detection: Revisiting the Literature. *Journal of Commerce and Accounting Research*, 4(1). <https://doi.org/10.21863/jcar/2015.4.1.006>
- Mansor, N. (2017). Fraud Triangle Theory and Fraud Diamond Theory . Understanding the Fraud Triangle Theory and Fraud Diamond Theory . Understanding the Convergent and Divergent For Future Research. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(October 2015), 38–45. <https://doi.org/10.6007/IJARAFMS/v5-3/1823>
- Maulidi, A. (2016). Dealing with fraudulent financial statement in business organizations through whistleblowing system and staff awareness of Fraud. *Proceedings of the International Conference on Accounting Studies (ICAS) 2016, August*, 324–331.
- Mayer, D. M., Kuenzi, M., & Greenbaum, R. L. (2010). Examining the Link Between Ethical Leadership and Employee Misconduct: The Mediating Role of Ethical Climate. *Journal of Business Ethics*, 95(SUPPL. 1), 7–16. <https://doi.org/10.1007/s10551-011-0794-0>
- Memon, M. A., Ting, H., Cheah, J.-H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample Size for Survey Research: Review and Recommendations. *Journal of Applied Structural Equation Modeling*, 4(2), i–xx. [https://doi.org/10.47263/jasem.4\(2\)01](https://doi.org/10.47263/jasem.4(2)01)
- Mohamed, N., & Handley-Schachler, M. (2015). Roots of Responsibilities to Financial Statement Fraud Control. *Procedia Economics and Finance*, 28(April), 46–52. [https://doi.org/10.1016/s2212-5671\(15\)01080-1](https://doi.org/10.1016/s2212-5671(15)01080-1)
- Asire, M. A. (2017). A Meta-Analysis of the Effects of Incentives on Response Rate in Online Survey Studies. *Electronic Theses and Dissertations*, 1317. <https://digitalcommons.du.edu/etd/1317>
- Murphy, P. R., & Free, C. (2016). Broadening the fraud triangle: Instrumental climate and fraud. *Behavioral Research in Accounting*, 28(1), 41–56. <https://doi.org/10.2308/bria-51083>
- Murti, A., & Kurniawan, T. (2020). *Implementation and Impact of Internal Control in Preventing Fraud in The Public Sector*. August. <https://doi.org/10.4108/eai.30-10-2019.2299394>
- N'Guilla Sow, A., Basiruddin, R., Abdul Rasid, S. Z., & Husin, M. M. (2018). Understanding fraud in Malaysian SMEs. *Journal of Financial Crime*, 25(3), 870–881. <https://doi.org/10.1108/JFC-08-2017-0077>
- Nawawi, A., & Salin, A. S. A. P. (2018). Internal control and employees' occupational fraud on expenditure claims. *Journal of Financial Crime*, 25(3), 891–906. <https://doi.org/10.1108/JFC-07-2017-0067>
- Nia, E. H., & Said, J. (2015). Assessing Fraud Risk Factors of Assets Misappropriation: Evidences from Iranian Banks. *Procedia Economics and Finance*, 31(15), 919–924. [https://doi.org/10.1016/s2212-5671\(15\)01194-6](https://doi.org/10.1016/s2212-5671(15)01194-6)

- Nicholas, K., Ann, K., & David, K. (2015). *International Journal of Advanced Research in Computer Science and Software Engineering Instant Awareness of Fraud and Risk*. 5(9), 718–722.
- Ocansey, E., & Ganu, J. (2018a). The Role of Corporate Culture in Company. *Research Gate*, 8(24), 37.
<https://www.theseus.fi/bitstream/handle/10024/147515/ThesisFinished.pdf?sequence=1&isAllowed=y>
- Ocansey, E., & Ganu, J. (2018b). The Role of Corporate Culture in Company. *Research Gate*, 8(December 2017), 37.
<https://www.theseus.fi/bitstream/handle/10024/147515/ThesisFinished.pdf?sequence=1&isAllowed=y>
- Omar, M., Nawawi, A., & Salin, A. S. A. P. (2016). The causes, impact and prevention of employee fraud: A case study of an automotive company. *Journal of Financial Crime*, 23(4), 1012–1027. <https://doi.org/10.1108/JFC-04-2015-0020>
- Palupi, D., & Santoso, B. H. (2017). An Empirical Study on the Theory of Planned Behavior: the Effect of Gender on Entrepreneurship Intention. *Journal of Economics, Business & Accountancy Ventura*, 20(1), 71. <https://doi.org/10.14414/jebav.v20i1.626>
- Peltier-Rivest, D., & Lanoue, N. (2015). Cutting fraud losses in Canadian organizations. *Journal of Financial Crime*, 22(3), 295–304. <https://doi.org/10.1108/JFC-11-2013-0064>
- Putri, P. A. A., & Irwandi, S. A. (2017). The determinants of accounting fraud tendency. *The Indonesian Accounting Review*, 6(1), 99. <https://doi.org/10.14414/tiar.v6i1.857>
- PwC. (2020). Fighting fraud: A never-ending battle PwC's Global Economic Crime and Fraud Survey 2020. *PwC Fraud Survey*, 14. www.pwc.com/fraudsurvey
- PwC. (2018). *PwC's Global Economic Crime and Fraud Survey 2018 Southeast Asia Report*. www.pwc.com
- Rahi, S. (2017). Research Design and Methods: A Systematic Review of Research Paradigms, Sampling Issues and Instruments Development. *International Journal of Economics & Management Sciences*, 06(02). <https://doi.org/10.4172/2162-6359.1000403>
- Rahman, R. A., & Anwar, I. S. K. (2014). Effectiveness of Fraud Prevention and Detection Techniques in Malaysian Islamic Banks. *Procedia - Social and Behavioral Sciences*, 145, 97–102. <https://doi.org/10.1016/j.sbspro.2014.06.015>
- Roseline, E. (2019). Restoring the Capacity of Leadership As Role Model To Build Anti Fraud Culture and System: a Study of Indonesia. *Asia Pacific Fraud Journal*, 4(2). <https://doi.org/10.21532/apfjournal.v4i2.112>
- Ruankaew, T. (2016). Beyond the Fraud Diamond. *International Journal of Business Management & Economic Research*, 7(1), 474–476.
- Sadique, R. B. M., Ismail, A. M., Roudaki, J., Alias, N., & Clark, M. B. (2019). Corporate governance attributes in fraud deterrence. *International Journal of Financial Research*, 10(3), 51–62. <https://doi.org/10.5430/ijfr.v10n3p51>
- Said, J., Omar, N., Rafidi, M., & Syed Yusof, S. N. (2018). Are organizational factors more prevailing than individual factors in mitigating employee fraud?: Findings from Royal Custom Officers. *Journal of Financial Crime*, 25(3), 907–922. <https://doi.org/10.1108/JFC-09-2017-0087>
- Salwani Mohamed, I., Abdul Rahman, S., Rosli, R., Salwani Mohamad, I., & Mohamed, N. (2017). *Fraud Prevention Framework in Malaysia Local Authorities*. March. <https://www.researchgate.net/publication/321183197>
- Sanusi, Z. M., Rameli, M. N. F., & Isa, Y. M. (2015). Fraud Schemes in the Banking Institutions:

- Prevention Measures to Avoid Severe Financial Loss. *Procedia Economics and Finance*, 28(April), 107–113. [https://doi.org/10.1016/s2212-5671\(15\)01088-6](https://doi.org/10.1016/s2212-5671(15)01088-6)
- Sardzoska, E. G., & Tang, T. L. P. (2012). Work-Related Behavioral Intentions in Macedonia: Coping Strategies, Work Environment, Love of Money, Job Satisfaction, and Demographic Variables. *Journal of Business Ethics*, 108(3), 373–391. <https://doi.org/10.1007/s10551-011-1096-2>
- Schuchter, A., & Levi, M. (2016). The Fraud Triangle revisited. *Security Journal*, 29(2), 107–121. <https://doi.org/10.1057/sj.2013.1>
- Schwartz, M. S. (2013). Developing and sustaining an ethical corporate culture: The core elements. *Business Horizons*, 56(1), 39–50. <https://doi.org/10.1016/j.bushor.2012.09.002>
- Setiawan, S. (2018). the Effect of Internal Control and Individual Morality on the Tendency of Accounting Fraud. *Asia Pacific Fraud Journal*, 3(1), 33. <https://doi.org/10.21532/apfj.001.18.03.01.04>
- Shanmugam, J. K., & Ali, A. (2012). An Exploratory Study of Internal Control and Fraud Prevention Measures in SMEs. *International Journal of Business Research and Management*, 3(2), 90–99.
- Shao, S., & Shao, S. (2016). *Best Practices for Internal Controls to Prevent Occupational Fraud in Small Businesses ?* by. 1–31.
- Shonhadji, N., & Maulidi, A. (2021). The roles of whistleblowing system and fraud awareness as financial statement fraud deterrent. *International Journal of Ethics and Systems*, 37(3), 370–389. <https://doi.org/10.1108/IJOES-09-2020-0140>
- Sinarti, & Nuraini, R. I. (2019). *The Effect of Financial Stability, External Pressure, and Ineffective Monitoring of Fraudulent Financial Statement*. 377(Icaess), 31–35. <https://doi.org/10.2991/icaess-19.2019.6>
- Siregar, S. V., & Tenoyo, B. (2015). Fraud awareness survey of private sector in Indonesia. *Journal of Financial Crime*, 22(3), 329–346. <https://doi.org/10.1108/JFC-03-2014-0016>
- State, B. (2016). *Mohammed Saleh Department of Accounting College of Business and Management Studies*, Key words : Internal Control , Fraud Detection , Fraud Prevention , Manufacturing Industries INTRODUCTION 1 . 1 BACKGROUND TO THE STUDY The effect of internal control on. 12(2), 1–38. <https://doi.org/10.5539/ijm.v12n2p151>
- Suh, J. B., Shim, H. S., & Button, M. (2018). Exploring the impact of organizational investment on occupational fraud: Mediating effects of ethical culture and monitoring control. *International Journal of Law, Crime and Justice*, 53(March), 46–55. <https://doi.org/10.1016/j.ijlcj.2018.02.003>
- Survey, C. (2014). *PWC_EconomicCrimeAThreatToBusinessGlobally*.
- Taherdoost, H. (2018). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *SSRN Electronic Journal*, January 2016. <https://doi.org/10.2139/ssrn.3205040>
- Tazilah, M. D. A. B. K., & Hussain, N. B. C. (2015). The Importance of Internal Control in SMEs : Fraud Prevention & Detection. *International Conference on Business, Accounting, Finance, and Economics*, February.
- The Committee of Sponsoring Organizations of the Treadway Commission. (2013). Internal Control — Integrated Framework Executive Summary. *Coso*, May, 1–20. <https://www.coso.org/Pages/ic.aspx>
- Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, 147–158. <https://doi.org/10.17348/era.5.0.147-158>

- Varsha, A. V., George, G., & Sahajanandan, R. (2017). Lutembacher syndrome: Dilemma of doing a tricuspid annuloplasty. *Annals of Cardiac Anaesthesia*, 20(4), 456–458. https://doi.org/10.4103/aca.ACA_36_17
- Creswell, W. J. (n.d.). *Research Design Qualitative, Quntitatvie and Mixed Method*.
- Warrick, D. D. (2017). What leaders need to know about organizational culture. *Business Horizons*, 60(3), 395–404. <https://doi.org/10.1016/j.bushor.2017.01.011>
- Wells, J. T. (2017). Corporate Fraud Handbook. In *Corporate Fraud Handbook*. <https://doi.org/10.1002/9781119351962>
- Wicaksono, A. P., & Urumsah, D. (2017). Factors Influencing Employees To Commit Fraud in Workplace Empirical Study in Indonesian Hospitals. *Asia Pacific Fraud Journal*, 1(1), 1. <https://doi.org/10.21532/apfj.001.16.01.01>
- Yelvionita, V., Utami, W., & Mappanyuki, R. (2019). *The Effect of Internal Control and Organizational Culture on Early Warning Fraud Case* (Vol. 5, Issue 1).
- Zakaria, K. M., Nawawi, A., & Puteh Salin, A. S. A. (2016). Internal controls and fraud-empirical evidence from oil and gas company. *Journal of Financial Crime*, 23(4), 1154–1168. <https://doi.org/10.1108/JFC-04-2016-0021>
- Zuberi, O., & Mzenzi, S. I. (2019). Analysis of employee and management fraud in Tanzania. *Journal of Financial Crime*, 26(2), 412–431. <https://doi.org/10.1108/JFC-01-2018-0012>