

# The empirical analysis of corporate fraud and corporate governance in Malaysia

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## Keywords

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## Abstract

*Despite many improvements on governance and establishment of new laws and regulations to combat fraud, the numbers of corporate fraud cases continue to rise globally. The significant amount of financial and non-financial losses due to fraud, has led to criticism of the effectiveness of corporate monitoring in fraud prevention and ability of the corporate governance mechanism to maintain the confidence of investors and stakeholders. This study attempts to examine the relationships between corporate governance and corporate fraud. The sample of this study consists companies listed in Bursa Malaysia, focusing on three industries; retail, telecommunication and technology, covering the period from year 2010 to 2017, and the logistic regression were used to analyse the data obtained. This study found that size of the board and CEO age are significantly positively related to the likelihood of corporate fraud.*

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## 1.0 Introduction

Corporate fraud issue has received significant critical attention after the high-profile scandals at Enron, Tyco and WorldCom. The Association of Certified Fraud Examiners (2018) reported that the total global loss due to fraud is estimated at USD4 trillion in 2017. In Malaysia, the number of organizations that reported losses more than USD1 million due to fraud has increase from 13% in 2016 to 22% in year 2017 (PricewaterhouseCoopers, 2018b). Additionally, the survey by PricewaterhouseCoopers (2018b), further revealed that this issue also cause an adverse social impact on employee morale, relationship with suppliers, customers and regulators, as well as organizations' image and reputation. The need to address this problem is vital as the losses suffered, threaten the wealth of the shareholders and other stakeholders, which affect the stability of the society.

Fama and Jensen (1983) state that the separation of ownership and control in managing a business has raised the issue of conflict between the principal (owner) and agent (manager), which lead to fraudulent activities undertaken by management. The Agency Theory pointed out that the different interest of managers, shareholders and other stakeholders, increase the need to have effective corporate governance to monitor and control the activities of management (Shleifer and Vishny, 1997). Corporate governance has been identified as an important tool and mechanism in the capital market to strengthen the investors' confidence that the business is well managed and continue to prosper. However, despite many improvements on governance and establishment of new laws and regulations to combat corporate fraud, the numbers of corporate fraud cases continue to rise. The PricewaterhouseCoopers (2018) Global Economic Crime and Fraud Survey reported that the number of fraud cases had increase from 36% in 2016 to 49% in 2018 globally. In Malaysia, Omar, Said, and Johari (2016) stated that there is growing concern over the increase in fraud cases. The survey by PricewaterhouseCoopers (2016) highlighted that the increase in the fraud cases in Malaysia is due to the failure of the companies to carry out a fraud risk assessment and fail to assess the risk of evolving corporate fraud that continue to grow overtime. The survey also reported that 90% of Malaysian companies believe that opportunity continue to be the driver of economic crime in their organization.

Previous studies had associated corporate governance with fraud incidences. It is highlighted that poor corporate governance will increase the fraud occurrences in an organization (see Beasley, 1996; Farber, 2005; Persons, 2006). Ramaswamy (2005) also pointed out that the major fraud cases such as Adelphia, Royal Ahold, Enron and Worldcom were attributed from poor corporate governance of these corporations. In addition, Khas (2002) stated that many corporations in Malaysia had failed to survive during the Asian financial crisis in 1997 due to weak corporate governance. Poor corporate governance indicates ineffectiveness in the monitoring and controlling mechanism employed by an organization, which will create an opportunity for its management to commit fraud. (Ismail & Abdelmoniem, 2013; McInnes & Stevenson, 1997). Past studies have found that board composition have a link with the likelihood of fraud incidences. Among these characteristics are large board size, frequent board meeting and small percentage of independent directors (see Beasley, 1996; Persons, 2006). Besides that, directors' share ownership also can be a contributing factor to fraud occurrences. Beasley (1996) pointed out that having significant ownership in a company is a motivational factor to fraud. It is also noted that the duality role of CEO can be a contributing factor to the likelihood of fraud incidences, when he or she serves as a chairperson of the board. This can lead to bias and conflict in decision making process that will motivate the management to practice unethical conduct. The high frequency of board meeting can also be associated with the occurrence of fraud (Shan, Graves, & Ali, 2013). This could be due to the urgency of the need to have important discussion that may involve illegal or questionable management activities. The age of the CEO is also believed to be another factor that can contribute to fraud. According to Xu, Zhang, and Chen (2017), older CEO is less likely to engage in fraudulent activities because they are often more experience and more to lose if they fail to carry out their monitoring duty. Malaysian Code of Corporate Governance (MCCG) recommended that the compensation of CEO and directors should be appreciable and reflect the responsibility and commitment to an organization. If the CEO is not well paid, there may be a tendency for them to conduct unethical behaviour at the expense of shareholders (Albrecht, Albrecht, & Albrecht, 2008). Therefore, these assertions suggest that weak corporate governance structure and design are the possible factors that contribute to the fraud occurrence.

Shan, Graves and Ali (2013) pointed that, there has been a little attention of study into the corporate governance effectiveness in developing countries. The unique environment, regulations and economic policies especially in Malaysian context may provide different findings. The models, characteristics and variables that were significant in the studies conducted in other countries might not be significant in Malaysian context. Studying these characteristics in this country is vital as the findings could shed some light on effectiveness of corporate governance characteristics that will reduce the likelihood of corporate fraud. Therefore, in relation to this issue, this study aims to examine the relationship between corporate governance and the likelihood of corporate fraud in Malaysia. The result of this study may assist top management and managers of companies to effectively design their corporate governance structure and hence strengthen the confidence of current and future investors. Additionally, it will also assist the shareholders and other stakeholders to understand the red flag of corporate fraud and help them minimize the fraud losses.

## 2.0 Literature Review

The Chartered Institute of Management Accountant (2009) defines corporate fraud as an act that involves deception to other parties to make a personal gain for oneself dishonesty conducted to gain advantages of others. Fraud happens in situations in which conditions are right for it to happen. According to Fraud Triangle Theory, fraudulent behaviour can be influenced by perceived opportunity, perceived pressure and perceived rationalization. Weak corporate governance is seen as perceived opportunity that may permit an individual or group of people to commit fraudulent activities. Ineffective monitoring due to poor directorship and CEO domination often related to the inability of the board to provide effective control over the management activities (Farber, 2005). Perceived pressure can be related to the desire of the management or manager to increase the firm's performance or the requirement to meet the high target of the company (Albrecht et al., 2008). This could be exacerbated when incentive, bonus or compensation is tied up with the management performance. Management may pursue unethical conduct to meet the expectation by market analysts or to ensure they will receive the incentive or bonus and receive significant increase in their compensation. According to Rae and Subramaniam (2008), perceived

rationalization is a justification of fraudulent behaviour due to the lack of personal integrity or poor moral reasoning. In the event where perceived pressure (compensation structure) increase, coupled with high perceived opportunity (weak corporate governance), rationalizing fraudulent acts are made easier. Companies easily resort to desperate measures such as misrepresentation of financial statement, asset misappropriation, payment or acceptance of bribes and, or falsification of documents.

The board of directors provides a significant corporate governance mechanism as it plays an important role in providing proper guidance and overseeing the conduct of the business. According to John and Senbet (1998), board effectiveness in its monitoring function is determined by size, independence and composition. Jensen and Meckling (1976) stated that smaller board of directors are more effective than larger board size. Earlier studies by Lipton and Lorsch (1992) and Jensen (1993) found that larger board of directors is less efficient in monitoring activities. Accordingly, large board size will decrease the effectiveness in communication and decision-making process. Additionally, Yermack (1996), Huther (2002) and Eisenberga, Sundgren, and Wells (1998), stated that a small number of board of directors produces better financial performance and more effective in enhancing the firm's value. These findings suggest that larger board size indicate weak board structures that may encourage opportunity for fraud to happen. However, prior studies also documented that board size has no significant relationship with corporate fraud incidences (see Shan et al., 2013; Ainul, Wan, Razali, & Arshad, 2014).

Independent board of directors also play a crucial role in monitoring unethical behaviour of the management. Past literature has documented that a higher percentage of independent directors provides better monitoring role and better decision control (Jensen, 1993) as well as reduce the likelihood financial statement fraud (Beasley, 1996; Ainul et al., 2014). However, a study by Shan et al. (2013) found no significant association between board independence and corporate fraud.

The MCCG (2017) suggests that the board of directors should meet regularly in order to discuss issues regarding the corporate activities. However, Vafeas (1999) argue that frequent meetings only lead to poor performance of a company. Frequent board meeting also found to be positively associated with the likelihood of fraud (Shan et al., 2013; Salleh & Othman, 2016; Zhou, Zhang, Yang, Su, & An, 2018). According to Shan et al. (2013) The frequent board meeting reflects there is a high probability of fraud occurrence that force the members to have discussion that related to illegal or questionable activities.

The duality role of CEO suggests a possibility of conflict of interest in decision making process (Fama and Jensen, 1983). In relation to this, the MCCG best practice proposes that there must be a balance on power and authority between the CEO and chairman to avoid bias decisions. In Malaysia, previous studies that investigate the relationship between board duality and corporate fraud is yet to provide substantial empirical findings. For example Shan et al. (2013) and Salleh and Othman (2016) found no significant influence between board duality and corporate fraud.

According to Xu et al. (2017), older CEO is less likely to engage in corporate fraud activities because they are often more experience and more to lose if they fail to carry out their monitoring duty. This is because the longer exposure to traditional culture and customs usually forester them to have a tendency to be make ethical decisions (Mudrack, 2011) and more likely to recognize moral issues and good moral reasoning (Singhapakdi, Vitell, & Kraft, 1996), thus improve the decision-making quality of the company. On the contrary, Wang and Demers (2010), argued that younger CEO is likely to engage in earnings management because they are less aware of the opportunity and benefit of doing so.

Directors having a large interest in a company would decrease the problem of agency cost (Jensen, 1993). This is because, normally, managers that have shares in a company will not put the company at risk of fraud; therefore, there will be a reduction in the likelihood of corporate fraud. However, Beasley (1996) and Persons (2006) revealed that high managerial ownership did not reduce the likelihood of fraudulent activities. Additionally, Sen (2007) also pointed out that an increase in the share ownership may not contribute in reduction of unethical activities.

MCCG recommended that the compensation of directors should be appreciable and should reflect the responsibility and commitment of the board membership. If the directors are not well paid, there may be a tendency for them to conduct unethical behaviour at the expense of the shareholders. Meanwhile, if the compensation is excessive, the directors may lose their independence (Dah and Frye, 2017), which

subsequently lead them to engage in fraudulent activities (Zhou et al., 2018). Equity-based compensation is generally believed to better align the interest of managers and shareholders (Jensen & Meckling, 1976). However, in certain circumstances it may also motivate management to engage in fraudulent activities for personal gain (Bar-Gill & Bebchuk, 2002). Many empirical studies reveal that strong equity incentives of top management may cause accounting irregularities or fraud (Bergstresser & Philippon, 2006; Denis & McConnell, 2002; Harris & Bromiley, 2007). However, study like Armstrong, Jagolinzer, and Larcker (2010) shows that accounting manipulation is less likely in firms where CEO have high equity incentives. Meanwhile, Erickson, Hanlon, and Maydew (2006) documented no evidence that equity incentives are associated with fraud. The paucity of study that examines the relationship between in director's compensation and fraud in Malaysia has motivated this study to conduct the analysis.

### 3.0 Methodology

Data of this study were collected from the annual reports of companies listed in Bursa Malaysia from three industries, namely, retail, telecommunication and technology. According to Dechow, Ge, Larson and Sloan (2011) these three industries are known to be prone to conduct fraud activities such as overstatement of sales to meet optimistic business target, shipping goods without authorization and manipulated reserve for restructuring purposes. The period of analysis covered from year 2010 to year 2017. The sample of companies was selected based on the availability of the data. All companies must have a complete set of data for each year under this study. Thus, companies with incomplete data will be excluded.

The extent of potential fraudulent companies was measured using Beneish M-score Model. This model has been developed by Beneish (1997, 1999) to distinguish between earnings manipulators who violates accounting rules from non-manipulators. As pointed out by Ezrein, Md Salleh, and Ahmad (2016), this model is able to detect 82% of the public listed companies prosecuted for fraudulent financial reporting by Securities Commission of Malaysia, hence provide evidence that this model is reliable and capable of identifying potential fraudulent companies listed in Bursa Malaysia. This model uses eight financial ratios to detect financial statement fraud which can be explained in Table 1.

Table 1: Ratio Analyses Used as Beneish M-score

Ratio	Formula
Days Sales in Receivable Index (DSRI)	$(\text{Net Receivable}_t / \text{Sales}_t) / (\text{Net Receivable}_{t-1} / \text{Sales}_{t-1})$
Gross Margin Index (GMI)	$[(\text{Sales}_{t-1} - \text{COGS}_{t-1}) / \text{Sales}_{t-1}] / [(\text{Sales}_t - \text{COGS}_t) / \text{Sales}_t]$
Asset Quality Index (AQI)	$[1 - (\text{Current Asset}_t + \text{PPE}_t / \text{Total Asset}_t)] / [1 - (\text{Current Asset}_{t-1} + \text{PPE}_{t-1} / \text{Total Asset}_{t-1})]$
Sales Growth Index (SGI)	$\text{Sales}_t / \text{Sales}_{t-1}$
Depreciation Index (DEPI)	$[\text{Depreciation}_{t-1} / \text{Depreciation}_{t-1} + \text{PPE}_{t-1}] / [\text{Depreciation}_t / \text{Depreciation}_t + \text{PPE}_t]$
Sales, General and Administrative Index (SGAI)	$\{\text{SGA Expenses}_t / \text{Sales}_t\} / \{\text{SGA Expenses}_{t-1} / \text{Sales}_{t-1}\}$
Total Accruals to Total Asset Index (TATA)	$\text{Total Accruals}_t / \text{Total Assets}_t$
Leverage Index (LEVI)	$[\text{LTD}_t + \text{Current Liabilities}_t / \text{Total Asset}_t] / [\text{LTD}_{t-1} + \text{CL}_{t-1} / \text{Total Asset}_{t-1}]$

Source: Beneish (1997, 1999)

The eight variables of Beneish Model will be calculated using the following formula:

$$M = -4.84 + 0.92 * \text{DSRI} + 0.528 * \text{GMI} + 0.404 * \text{AQI} + 0.892 * \text{SGI} + 0.115 * \text{DEPI} - 0.172 * \text{SGAI} + 4.679 * \text{TATA} - 0.327 * \text{LVGI}$$

The M score is the figure derived from the model. M-score of less than -2.22 indicates that a company does not manipulate the financial statement in the accounting period. M-score greater than -2.22 signals that the company will likely be a manipulator. These parameters are calculated from data available in company financial reports. Therefore, using this model, the companies that likely manipulate financial statements can be determined. The score of "1" will be given if the companies had red flags indicating that

there are possibility of fraudulent financial statements and “0” if otherwise. The measurement of independent variables used in this study is listed in Table 2. To examine the relationship between corporate governance and corporate fraud, panel logistic regression analysis was employed. The model of the regression is presented as follow:

$$FR_{it} = \alpha + \beta_1 BS_{it} + \beta_2 BIND_{it} + \beta_3 BM_{it} + \beta_4 DUAL_{it} + \beta_5 AGE_{it} + \beta_6 DSO_{it} + \beta_7 COMP_{it} + \varepsilon_{it}$$

Table 2: Measurement of Corporate Governance Variables

Independent variables	Variable Acronym	Measurement	Sources of data
Board size	BS	The total number of board members	Annual report
Number of independent directors in board	BIND	The number of independent directors on the board	Annual report
Frequency of Board meeting	BM	The number of board meeting in a year	Annual report
CEO duality	DUAL	1 if dual role and 0 otherwise	Annual report
CEO age	AGE	The age of the CEO during that year	Annual report
Directors' share Ownership	DSO	Percentage of company shares retained or owned by the directors	Annual report
CEO compensation	COMP	Total compensation of CEO, which include cash bonus and equity	Annual report

#### 4.0 Findings and Discussions

Table 3 presents the descriptive statistics of the variables in this study. Since the value of the CEO compensation is not normal, the value was analysed using log-transformed data. The results of unit root test using Levin-Lin-Chu (2002) indicate that all variables are enough at level.

Table 3: Descriptive Statistics

Variables	Mean	Min	Max	Std. Dev	Skewness	Kurtosis
FR	0.5168	0	1	0.5008	-0.0673	1.0045
BS	6.9034	2	12	2.0384	0.3528	2.4868
BIND	3.5084	1	7	2.1341	11.1873	154.6611
BM	5.6681	2	17	2.0071	2.4402	10.9911
DUAL	0.21443	0	1	0.4112	1.3926	2.9394
AGE	52.0756	34	78	8.3819	0.5828	3.4659
DSO	0.2963	0.01	2.35	0.2724	2.6379	17.3974
COMP	13.1808	7	16	1.3520	-0.8746	5.8956

Number of observations = 238

The result in Table 3 reported that the mean value of the fraud (FR) is 0.5168, this indicate that the sample of companies selected in this study has high likelihood of fraud. The average number of board members in each organization is 7 members as indicated in mean value of BS (6.9034). The mean value of 3.5084 for number of independent boards, indicates that there is about 35% independence board representation in each company. The youngest CEO's age is 34 years old, while the oldest CEO is 78 years old. The mean value of director's share ownership (DSO) is reported at 29%, and the average CEO compensation (COMP) is reported at 13.1808.

The result of the panel logistic regression is presented in Table 4. Referring to the p-value, the number of board members (BS) and board age (AGE) have positive significant influence on corporate fraud. Lipton and Lorsch (1992) and Jensen (1993) also found that larger board size has a positive influence on corporate fraud. The significant positive relationship between CEO age and corporate fraud also reported by Wang and Demers (2010). Thus, it can be concluded that, the large number of board of directors and CEO age increase the likelihood of fraudulent activities.

Table 4: Result on the Panel Regression Analysis

	Pooled OLS	Logistic	Logistic Robustness	Regression
BS				
$\beta$	0.0434	1.2088	1.2089	
t-stat	2.41	2.38	2.46	
p-value	(0.016) **	(0.017) **	(0.014) **	
BIND				
$\beta$	-0.011	-0.9356	-0.9359	
t-stat	-0.70	-0.63	-1.00	
p-value	(0.485)	(0.528)	(0.316)	
BM				
$\beta$	0.0092	1.0441	1.0441	
t-stat	0.56	0.60	0.66	
p-value	(0.573)	(0.545)	(0.511)	
DUAL				
$\beta$	0.0126	1.051	1.051	
t-stat	0.15	0.14	0.14	
p-value	(0.879)	(0.890)	(0.890)	
AGE				
$\beta$	0.0137	1.0630	1.0630	
t-stat	3.44	3.32	2.99	
p-value	(0.001) ***	(0.001) ***	(0.003) ***	
DSO				
$\beta$	0.0275	1.1353	1.1354	
t-stat	0.23	0.25	0.26	
p-value	(0.815)	(0.805)	(0.792)	
COMP				
$\beta$	0.0048	1.0235	1.0235	
t-stat	0.17	0.19	0.21	
p-value	(0.866)	(0.847)	(0.834)	
Cons				
$\beta$	-0.584	0.00842	0.0842	
t-stat	-1.70	-3.10	-3.06	
p-value	0.089*	0.002***	0.002***	
BP LM Test				
p-value	(1.00)	-	-	
No. of observations	238	238	238	

Note: The value in the parentheses are p-value indicate significant at 99% (\*\*\*), 95% (\*\*) and 90% (\*).

On the other hand, the number of independence directors (BIND), board meeting (BM), CEO duality (DUAL), Director Share ownership (DSO) and CEO compensation (COMP) have p-value more than 0.05, which indicates that the variables have no influence on corporate fraud.

## 5.0 Conclusion

In conclusion, larger number of board of directors will decrease the monitoring effectiveness and indicate weak board structure that may encourage opportunity for fraud to happen in Malaysia. In addition, in Malaysia, younger CEO is less likely involved in fraudulent activities because they are less aware of the benefit and opportunity to do so.

The result of this study would contribute to reduce the knowledge gap on corporate fraud issue. This paper adds valuable insights to the academic, the public companies, auditors and other users of the published annual report as a method to identify red flag. It would assist public companies to effectively design their corporate governance structure and update their monitoring mechanism. Auditors may consider board size and CEO age factors, when evaluating the risk of corporate fraud. This study could also be used as a reference for future research to enhance the formulation of corporate governance policies to minimize corporate fraud.

However, the number of samples used in this study is limited to three industries namely; retail, telecommunication and technology, covering the period of year 2010 to 2017. Future research should be conducted to incorporate other industries and include other variables such as internal audit, external audit and shareholders. In addition, primary data could also be employed to see the variation in the result as this study uses secondary data. To motivate future researchers to explore this issue, Malaysia should establish an up to date fraud database.

## References

- Ainul, W., Wan, A., Razali, M., & Arshad, R. (2014). Disclosure of corporate governance structure and the likelihood of fraudulent financial reporting. *Procedia - Social and Behavioral Sciences*, 145, 243–253.
- Albrecht, W. S., Albrecht, C., & Albrecht, C. C. (2008). Current Trends in Fraud and its Detection. *Information Security Journal: A Global Perspective*, 17(1), 2–12.
- Armstrong, C. S., Jagolinzer, A. D., & Larcker, D. F. (2010). Chief Executive Officer Equity Incentives and Accounting Irregularities. *Journal of Accounting Research*.
- Association of Certified Fraud Examiners. (2018). Report to the Nations: 2018 Global Study on Occupational Fraud and Abuse. *Global Fraud Study*, 15(2), 79.
- Bar-Gill, O., & Bebchuk, L. A. (2002). *Misreporting Corporate Performance*. SSRN.
- Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting Review*, 71(4), 443–465.
- Beneish, M. D. (1997). Detecting GAAP violation: Implications for assessing earnings management among firms with extreme financial performance. *Journal of Accounting and Public Policy*.
- Beneish, M. D. (1999). The Detection of Earnings Manipulation. *Financial Analysts Journal*.
- Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*.
- Chartered Institute of Management Accountant. (2009). Corporate Fraud. *CIMA Report*, 1(57), 1–18.
- Dah, M. A., & Frye, M. B. (2017). Is board compensation excessive? *Journal of Corporate Finance*, 45, 566–585.
- Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2011). Predicting Material Accounting Misstatements. *Contemporary Accounting Research*, 28(1), 17–82.
- Denis, D. K., & McConnell, J. J. (2002). *International Corporate Governance*. SSRN.
- Eisenberga, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics*.
- Erickson, M., Hanlon, M., & Maydew, E. L. (2006). Is there a link between executive equity incentives and accounting fraud? *Journal of Accounting Research*.
- Ezrein, M. K. M., Md Salleh, M. F., & Ahmad, A. (2016). Detecting Financial Statement Fraud by Malaysian Public Listed Companies: The Reliability of the Beneish M-Score Model (Mengesaran Penipuan Penyata Kewangan oleh Syarikat Tersenarai di Bursa Malaysia: Keberkesanan Model Beneish M-Score). *Jurnal Pengurusan*, 46, 23–32.
- Fama, Eugene F. and Jensen, M. C. (1983). Separation of Ownership and Control. *Journal of Law & Economics*, XXVI.
- Farber, D. B. (2005). Restoring trust after fraud: Does corporate governance matter? *Accounting Review*, 80(2), 539–561.
- Harris, J., & Bromiley, P. (2007). Incentives to Cheat: The Influence of Executive Compensation and Firm Performance on Financial Misrepresentation. *Organization Science*.
- Huther, J. (2002). An empirical test of the effect of board size on firm efficiency. *Economics Letters*.
- Ismail, T. H., & Abdelmoniem, Z. (2013). Stock option fraud prevention in Islamic country: does corporate governance matter? *Journal of Financial Reporting and Accounting*, 11(1), 4–28.
- Jensen, M. C. (1993). American Finance Association The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, 48(3), 831–880.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of The Firm Manajerial Behaviour, Agency Cost and Ownership structure. *Journal of Financial Economics*.
- John, K., & Senbet, L. W. (1998). <1-s2.0-S0378426698000053-main.pdf>. *Journal of Banking & Finance*, 22(4), 371–403.
- Lipton, M., & Lorsch, J. W. (1992). A Modest Proposal for Improved Corporate Governance: Business Source. *Business Lawyer*. MCCG. (2017). Malaysian Code on Corporate Governance, (April).
- McInnes, W. M., & Stevenson, J. E. (1997). The prevention and detection of corporate fraud: An assessment of the present framework. *Journal of Financial Regulation and Compliance*, 5(4), 331–339.
- Mudrack, P. E. (2011). Age-Related Differences in Machiavellianism in an Adult Sample. *Psychological Reports*. Omar, N., Said, R., & Johari, Z. A. (2016). Corporate crimes in Malaysia: A profile analysis. *Journal of Financial Crime*, 23(2), 257–272.
- Persons, O. S. (2006). Corporate Governance and Non-Financial Reporting Fraud. *Journal of Business and Economic Studies*, 12(Spring), 27–39.
- PricewaterhouseCoopers. (2016). Economic Crime from the Board to the Ground: Why a Disconnect is Putting Malaysian Companies at Risk. *Global Economic Crime Survey (Malaysia Report)*, 2016.

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- PricewaterhouseCoopers. (2018a). Pulling fraud out of the shadows. *Pwc*, 30. Retrieved from <https://www.pwc.com/gx/en/forensics/global-economic-crime-and-fraud-survey-2018.pdf>
- PricewaterhouseCoopers. (2018b). The fight against economic crime and corruption: *Global Economic Crime Survey (Malaysia Report)*, 2018.
- Rae, K., & Subramaniam, N. (2008). Quality of internal control procedures: Antecedents and moderating effect on organisational justice and employee fraud. *Managerial Auditing Journal*, 23(2), 104-124.
- Ramaswamy, V. (2005). Corporate Governance and the Forensic Accountant. *The CPA Journal*, (March), 68-70.
- Salleh, S. M., & Othman, R. (2016). Board of Director's Attributes as Deterrence to Corporate Fraud. *Procedia Economics and Finance*.
- Sen, P. K. (2007). Ownership incentives and management fraud. *Journal of Business Finance and Accounting*.
- Shan, Y. G., Graves, C., & Ali, H. H. (2013). Effect of board composition and ownership characteristics on fraud Evidence from Malaysian listed companies, 323-342.
- Shleifer, A., & Vishny, R. W. (1997). A Survey of Corporate Governance Andrei. *Journal of Finance*, 52(2), 737-783.
- Singhapakdi, A., Vitell, S. J., & Kraft, K. L. (1996). Moral intensity and ethical decision-making of marketing professionals. *Journal of Business Research*.
- Vafeas, N. (1999). Board meeting frequency and firm performance. *Journal of Financial Economics*.
- Wang, C., & Demers, E. A. (2010). The Impact of CEO Career Concerns on Accruals Based and Real Earnings Management. *Ssrn*, (November).
- Xu, Y., Zhang, L., & Chen, H. (2017). Board age and corporate financial fraud : An interactionist view. *Long Range Planning*.
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*.
- Zhou, F., Zhang, Z., Yang, J., Su, Y., & An, Y. (2018). Delisting pressure, executive compensation, and corporate fraud: Evidence from China. *Pacific Basin Finance Journal*.
-