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CORPORATE GOVERNANCE AND LIKELIHOOD OF FRAUD IN MALAYSIA: FROM THE PERSPECTIVE OF FRAUD DIAMOND THEORY

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Abstract:

Fraudulent financial reporting undermines trust in financial systems and leads to poor decision-making. Despite the introduction of new laws and regulations, financial fraud continues to rise. Therefore, early detection and prevention are essential. Effective corporate governance helps manage companies properly, potentially reducing fraud risks. However, recent corporate governance practices are under scrutiny due to ongoing fraud cases. Weak governance can result in inadequate internal controls, giving executives opportunities to commit fraud. This study uses the Fraud Diamond Theory to examine how various components of corporate governance relate to the likelihood of fraudulent financial reporting, measured by the F-Score model developed by Dechow et al. (2011). Analysing 61 construction companies listed on Bursa Malaysia from 2018 to 2021, the study finds that certain corporate governance variables, such as the presence of independent directors and board gender diversity, can reduce the likelihood of fraud. Additionally, the research highlights that CEO duality can also serve as a predictor of fraud risk. This study offers novel insights into corporate governance variables that regulators can use to predict the potential for fraud among listed companies.

Keywords: Corporate Governance, Fraud Diamond Theory, Fraudulent financial reporting

1. Introduction

Fraudulent Financial Reporting (FFR) refers to management behaviour that tends to manipulate the profits or loss or other assets or expenses by deliberately overstating or understating in financial reporting. Fraud in the corporate world can be caused by several main factors related to failures in corporate governance. However, recently the corporate governance structure and corporate governance code are questionable due to many cases happening (Devarajar et al., 2022). The weak corporate governance structures can lead to inadequate internal controls that give the top executives the opportunity to commit fraud (Moses, 2019). With the highest number of fraud cases in the Asia-Pacific area, Malaysia is placed third by ACFE 2022. The Economic Crime and Fraud Survey conducted by PricewaterhouseCoopers (PwC, 2018) reported that economic crime and fraud have increased from 36% in 2016 to 49% in the year 2018 globally. Furthermore, fraud has continued to be common in Malaysia, rising from 41% in 2018 to 54% in 2021 (PwC, 2020).

Based on the Fraud Diamond Theory (FDT), pressure, opportunity, and rationalisation, in addition to capability, are significant factors that influence fraud. According to Sari and Rofi (2020), the FDT can be used to identify financial statement fraud. There are many studies that have been done on the relationship between corporate governance and FDT. Nevertheless, most of the studies have focused on fraud detection rather than prevention (Andayani & Wuryantoro, 2023; Tragouda et al., 2023; Natalis, 2022; Retnoningtyas & Tarmizi, 2022; Sari et al., 2020). Furthermore, this paper

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focuses specifically on the corporate governance variables that can affect the likelihood of fraud. Despite having this theory, fewer studies have been done to relate this theory with the recent reformation of corporate governance and fraud prevention. Wan Fauzi et al. (2022) investigated the theory in relation to corporate governance variables. However, the study represents the likelihood of fraud by focusing on financially distressed companies, which limits the understanding of the true measurement of fraud likelihood. This research gap limits our understanding of how fraud prevention can reduce FFR within a company. Zulkafli et al. (2021) stated that previous studies are more likely to evaluate external factors but less likely to evaluate other factors such as internal control structures or corporate ethical culture in a deeper context. Thus, this paper aims to investigate the relationship between corporate governance components and the likelihood of FFR from an FDT perspective among public listed companies in Malaysia.

2. Literature Review and Hypotheses Development

2.1 Fraudulent Financial Reporting

Concerning the Ernst and Young (Ernst & Young, 2020) report, financial statement fraud has increased compared to other types of fraud. Anichebe et al. (2019) found that 77% of financial statement fraud was committed by individuals working in the company as top-level management or executives and accounting officers through sales and purchase activities, preparation of company accounts, and customer service. The ACFE report 2022 shows the evidence that financial statement fraud has caused a median loss of US$593,000 compared to corruption and asset misappropriation of US$150,000 and US$100,000, respectively. According to Zhang et al. (2022), companies conducting fraudulent financial reporting are motivated by poor financial performance, the desire to meet analyst estimates, compensation and incentive structures, and external funding. The financial report users' concerns relating to fraud reporting have increased due to the wake of big corporate scandals like Enron, WorldCom (Sallal et al., 2021), and the most serious corruption scandals in Malaysia, The 1 Malaysia Development Fund Bhd (1MDB) (Jones, 2020). Even if the number of cases is reduced, the number of losses caused by financial statement fraud is high and, consequently, affects the companies' reputation. Thus, identifying fraudulent financial statements is critical for capital market regulation (Shen et al., 2021).

2.2 Corporate Governance and Fraud Diamond Theory

The frequent occurrence of financial statement fraud may indicate ineffective corporate governance mechanisms. Several studies provide evidence of the importance of effective corporate governance mechanisms in reducing incidences of fraudulent financial statements (Namakavarani, 2021; Md. Nasir & Hashim, 2021; Rizwan & Chughtai, 2022; Rostami & Rezaei, 2022). Onesti and Palumbo (2023) mentioned that policymakers and regulators around the world have made a great effort to prevent fraud. However, this is insufficient to avoid major corporate fraud. Thus, previous studies have related corporate governance with factors of fraud based on FDT (Nikmah & Arjoen, 2023; Khumairoh et al., 2023; Prayogo & Ifazah, 2024). However, they focus more on fraud detection than fraud prevention.

Pressure is usually related to the pressures to achieve business success and financial targets such as net profit, revenue, sales growth, profit margin, and so on. The management of the company may take any necessary actions to meet profit targets while under pressure, even if doing so goes against the interests of shareholders (Prayogo & Ifazah, 2024). There are studies that found financial targets have a significant effect on financial statement fraud (Fitrianingsih & Bandi, 2024; Sari et al., 2020). Based on the arguments, it shows pressure can lead to fraud, and thus, we hypothesise that:

H1: There is a significant positive relationship between pressure and the likelihood of fraud.

Opportunity often arises when individuals in an organisation have access to unsupervised resources or can exploit system vulnerabilities for their personal gain. A board of directors that is not independent can provide opportunities for management to hide fraud or abuse their power. However, Fitrianingsih et al. (2024) and Indrati et al. (2021) found that the proportion of independent board members does not affect the possibility of financial statements preventing fraud. Previous research has also shown that companies with more independent members on the board of directors are more likely to have better oversight of management and financial actions, which can reduce opportunities for fraud (Zulkafli et al., 2021; Rostami & Rezael, 2022). Their findings confirmed that the greater the independence of the board, the more effective its monitoring role, and thus the lower the likelihood of fraud in financial statements. Therefore, we hypothesise that:

H2: There is a significant positive relationship between opportunity and the likelihood of fraud.

Rationalisation occurs when a person feels that they have the right to commit fraud or when they can justify their actions as harmless. This study will examine how the number of women on the board of directors can affect the rationalisation process in the organisation and, subsequently, the opportunity for financial fraud to occur. Previous research shows that women on the board of directors bring a more responsible, more ethical, and more concerned perspective to the company's reputational risk and public trust, as well as improved financial reporting quality (Naseem & Ali, 2023; Ibrahim & Yahaya, 2024). However, according to Ebaid (2023), the incidence of financial statement fraud is not significantly correlated with the proportion of women on the board. Therefore, we hypothesise that:

H3: There is a significant positive relationship between rationalisation and the likelihood of fraud.

CEO duality or holding several positions inside the organisation will demonstrate the CEO's extreme control. CEOs may use their capability to pursue their own agendas. The degree of fraud in the organisation increases with CEO duality (Ayuningtyas et al., 2021). According to Khamainy et al. (2022), a corporation where dual roles are present appears to have a favourable impact on earnings management, which may be a sign of financial statement fraud. This is supported by Apriwenni et al. (2023), who stated that duality has positively affected fraudulent financial statements. However, Ayuningtyas et al. (2021) found that CEO duality has no effect on indications of financial statement fraud. It is believed that CEO duality may provide capability to the CEO to commit fraud. Therefore, we hypothesise that:

H4: There is a significant positive relationship between rationalization and the likelihood of fraud.

3. Methodology

3.1 Sample Selection and Data Collection

The sample of this study consisted of 61 construction companies listed on the Main Market of Bursa Malaysia from 2018 to 2021. The first sample estimation was 244 observations. 81 observations were subsequently disregarded because certain variable data were missing. Thus, 163 observations made up the final sample. This study utilised data from the EIKON database for financial data and corporate governance from the annual reports of the companies.

3.2 Variable Measurements

The likelihood of fraudulent financial reporting is the dependent variable, and it was measured by F-score model developed by Dechow et al. (2011) as below:

$$\text{Value} = -7.893 + 0.790{*}RSST + 2.518{*}\Delta REC + 1.191{*}\Delta INV + 1.979{*}SOFTASSETS + 0.171{*}\Delta CASHSALES - 0.932{*}\Delta ROA + 1.029{*}ISSUE$$

The independent variables tested were corporate governance variables, which were return on assets (ROA), number of independent boards of directors, number of women on board, and CEO duality. This study relates corporate governance variables to the four factors of financial fraud outlined in the FDT, which were pressure, opportunity, rationalisation, and capability. ROA is closely related to the pressure faced by the company's management to meet high financial performance expectations (Fathmaningrum & Anggarani, 2021). Meanwhile, in the context of FDT, the number of independent boards of directors is adapted from Rahmatika et al. (2019). The number of women on board refers to the number of women on the company's board of directors, which represents rationalisation (Tang et al., 2023). CEO duality represents capability, and it was measured by a dummy variable with a value of 1 if the company practices duality and 0 otherwise (Wang et al., 2022). Firm size, as determined by total assets, and profitability determined by earnings before interest and tax (EBIT) were the two control variables.

3.3 Empirical Model and Data Analysis

The research objectives were validated using the subsequent regression analyses:

Regression (1) examined the relationship between corporate governance elements and the likelihood of fraudulent financial reporting:

$$LOF_{it} = ROA_{it} + IND_{it} + WOB_{it} + CEODUAL_{it} + RM_{it} + \text{Control Variables}_{it} + \varepsilon \qquad (1)$$

Descriptive analysis and multivariate analysis were used to analyse the data. Basic details on the variables in a dataset are provided by descriptive analysis, which also draws attention to possible correlations between the variables. Panel data analysis was performed for multivariate analysis and Binary Least Square regression was used to examine the data because the dependent variable was dichotomous.

4. Findings and Discussion

4.1 Descriptive Analysis

Panel A in Table 1 indicates that 60.7% of observations suggest construction firms are exposed to fraudulent financial reporting as predicted by Dechow's F-score. For pressure, the firm's ROA of 0.048 indicates that on average, the observations had a lower ROA, which could potentially indicate fraud among construction companies. For opportunity, the IND mean was 50.258, indicating that on average, the observations' companies had half as many independent directors as required by the MCCG (2017), which states that half (50%) of the board of directors must be independent (Umar, 2023). This indicates that the companies complied with the regulation. Furthermore, the WOB was 15.3%, which shows that, on average, construction companies did not meet the MCCG requirement of having 30% female representation on their boards of directors. This indicates that the majority of Malaysian construction companies fell short of the MCCG 2017 requirement of having 30% of their directors to be females. Meanwhile, CEODUAL found that the average percentage of CEO duality is 42.30 percent. This shows that 42.3% of construction companies used duality, which is against the MCCG's recommendation for the optimal way to divide the chairman's and CEO's authority. The descriptive results for the control variables are tabulated in Panel C.

Table 1: Descriptive Analysis

	Mean	Median	Maximum	Minimum	Std. Dev.
PANEL A : DEPENDANT VARIABLE					
LOF	0.607	1.000	1.000	0.000	0.490
PANEL B : CG VARIABLES					
ROA	0.048	0.030	0.482	0.001	0.060
IND	0.502	0.500	0.750	0.000	0.115

WOB	0.153	0.143	0.400	0.000	0.105
CEODUAL	0.423	0.000	1.000	0.000	0.496
PANEL C : CONTROL VARIABLE					
FIRMSIZE	18.203	19.639	22.834	12.710	2.850
PROFIT	14.825	15.888	19.041	9.147	2.986

4.2 Multivariate Analysis

Table 3 presents the main regression results. It shows the effect of the independent variables on the likelihood of fraud with control variables. The result for IND, which relates to opportunity, showed a significant positive relationship between LF and IND (2.009, z = 1.888, $p<0.10$), which indicates that a higher number of independent directors leads to a higher opportunity for the firm to commit fraud and thus leads to a higher likelihood of fraud. The second hypothesis (H2) is not supported as the outcome could be the result of the independent director's oversight not being carried out to its full potential or of the independent director being merely a showpiece who lacks the power to decide the company's policies. The result for WOB, which relates to rationalisation, indicated that a higher number of WOB reduces the possibility of fraud (-2.424, z=-2.027, $p<0.05$). The result is supported by the univariate analysis result, which highlighted that the non-likelihood of fraud firms having a higher number of women on board. Consistently, the result is supported by Adhikari et al. (2019), and Ho et al. (2015) mentioned that companies with more female corporate leaders have better firm performance and superior governance quality. Nevertheless, other factors of the fraud diamond theory were found to be insignificant.

Table 3: Regression Analysis (Main Regression) on the Effect of Corporate Governance Factors on the Likelihood of Fraud

Model	**1**	
DV	**LF**	
INTERCEPT	-1.865	
	-1.529	
ROA	-0.287	
	-0.802	
	0.543	
IND	**2.009**	*
	1.888	
WOB	**-2.424**	**
	-2.027	
CEODUAL	-0.132	
	-0.573	
FIRMSIZE	0.170	
	1.418	
PROFIT	-0.118	
	-1.024	
LR statistic	24.241	**

5. Conclusion and Recommendations

Overall, the outcome shows that a higher number of independent directors generally represents a lesser opportunity, which in turn reduces the likelihood of fraud. Thus, this study advocates for companies to diversify their boards and focus on the qualifications of independent directors. This includes promoting gender diversity and ensuring that directors possess relevant professional expertise, which can strengthen corporate governance frameworks and reduce the opportunity of financial fraud.

Given the findings that women are associated with a lower incidence of fraudulent financial reporting, this study strongly suggests that the government's recent regulatory modifications encouraging women's participation on boards are acceptable. This demonstrates that increasing the proportion of women on the board can lower the risk of fraud and enhance the financial performance of businesses. So, it is suggested for the regulators to consider introducing steps to increase gender diversity on boards.

CEO duality, which represents capability, also aids in predicting the possibility of fraud. Although CEO duality can help in reducing fraud, risks remain. Therefore, the firm itself needs to emphasise a culture of integrity and high ethics in leadership. Providing ongoing training on corporate ethics and setting clear standards can help ensure that CEOs who hold both positions act responsibly and do not engage in practices that harm the organisation.

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