THE EFFECT OF FINANCIAL AND CORPORATE GOVERNANCE FACTORS ON THE FORCED FINANCIAL RESTATEMENT LIKELIHOOD: EVIDENCE FROM MALAYSIA

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ABSTRACT

Background and Purpose: Forced financial restatement (FFR) creates a major concern as it has an instantaneous and disastrous effect on a firm's share price. Whilst studies focusing on FFR are limited, this study investigated the financial and corporate governance influences that affect the FFR likelihood within the emerging background of Malaysia. This study aims to provide new evidence and insights to Malaysian regulators in developing strategies to reinforce financial reporting quality.

Methodology: The influences of board independence, political connection, audit committee financial expertise, government-related institutional ownership, family ownership and control, corporate reporting quality, and financial distress on FFR occurrence were investigated. A multivariate logistic model was employed on 4,759 firm-year observations from 2002 until 2012.

Findings: Findings revealed that aggressive accounting influences the FFR likelihood. Based on the results, the number of independent board directors, the presence of politically connected investors or

management, working capital accruals management, real earnings management, and the financial health of the firm amplified the FFR occurrences.

Contributions: This study enriches the body of knowledge on FFR by investigating a wider range of financial and corporate governance factors as possible determinants of FFR.

Keywords: Forced financial restatement, opportunistic, accruals management, real earnings management, Malaysia.

1.0 INTRODUCTION

Forced financial restatement (FFR) is a significant incident imposed by auditors, the Securities Commission or other enforcement agencies for firms to restate earnings due to the General Accepted Accounting Practices (GAAP) violations. A GAAP violation or earnings misstatements result from unintentional errors or intentional abnormalities that mislead financial statement users (Hasnan et al., 2020). FFR has a disastrous and instantaneous effect on a firm share price value. The FFR practice often signifies destructive business model issues or potential firm corruption. FFR can cause insolvency in the long-term, transferring the problems to stakeholders, such as consumers and suppliers. Nevertheless, FFR is a major concern in both developed and developing countries.

This study examined FFR in Malaysia as it is an excellent representation of developing markets. Malaysia has a vastly concentrated firm ownership, a rapidly developing economy, and numerous politically connected firms (Hasnan et al., 2013; Lim et al., 2021). The strong association between organisations and the government creates firms with substantial political influences. Additionally, the Malaysian economic strategies that intend to improve Bumiputera financial wellbeing and reduce economic disparity among the various ethnic populations (Gul, 2006) makes Malaysia relevant for this study. The unique Malaysian business landscape is famous for its relationship-based economy, where Chinese-descent family-owned and Malay politically inclined businesses dominate. Consequently, distinctive business characteristics differentiate Malaysia from other Asian emerging markets (Othman et al., 2021). This indicates important ramifications for corporate governance and FFR that the Malaysian structural and

institutional context may have.

There are limited studies on the financial and corporate governance influences on FFR occurrences (Öğüt et al., 2009; Dechow et al., 2011; Kim et al., 2016), especially in the developing countries (Hasnan et al., 2013, 2020). This study enriches Hasnan et al.'s (2020) study by investigating the influence of various ownership structures and political connections on Malaysian FFR occurrences. Approximately 4,759 firm-year observations from 2002 to 2012, where 121 FFR rare-event observations were studied. Despite the fact that forced restatement is a rare occurrence owing to its infrequency (Dimmock & Gerken, 2012; Hribar et al., 2014), the attempt to examine the likelihood of forced restatement is critical since the FFR effect is potentially catastrophic, inflicting huge costs on investors, auditors, and regulators.

A logistic regression was employed to assess the FFR influences based on a three-year lagged misstatement period (Azhari et al., 2020). The model investigated the influence of board independence, audit committee financial expertise, family ownership and control, government-related institutional ownership, political connection, corporate reporting quality, and financial condition on FFR occurrences.

2.0 INSTITUTIONAL ENVIRONMENT

Malaysia has a diverse society consisting of two foremost ethnic populations - the indigenous Malays (Bumiputera), and the Chinese. These two ethnic groups' cultures are intertwined with issues of supervision. The Malay politically inclined trade activities have produced a relationship-based economic environment. As for Chinese, their trading pursuits mostly involve unofficial individual connections compared to officially authorised agreements (Liu & Lim, 2019). Additionally, the Chinese practise collectivism, which is demonstrated through 'guanxi' or social interaction, and trading unions.

The Malaysian economic and cultural correlation significantly influences market growth, demonstrated by the prevalence of government-controlled and family-owned companies. Conversely, this correlation creates market intransparency. The importance of networks essentially leads to supervisory issues and creation of information asymmetry, which renders the market exceedingly opaque. Subsequently, the Malaysian government faces difficulties reinforcing the monitoring guidelines, corporate governance structure, and financial reporting system to decrease intransparency and FFR.

The interplay between Malaysia's cultural and political factors further creates

widespread pyramid or cross-holding share ownership, politically associated companies, cross-directorships on the Malaysian publicly listed firms' boards, decreased monitoring enforcement, weak shareholder security, and fragile peripheral discipline. These institutional characteristics catalyse aggressive earnings management (EM) and deception (Hasnan et al., 2013, 2020) due to limited supervision and enforcement, incentivizing managers to seek personal gain at the minority investors' expense. The preceding characteristics influences managerial conduct and hence call into question Malaysian firms' integrity and financial reporting quality. This study developed a model to highlight the key factors influencing Malaysian FFR occurrences.

3.0 HYPOTHESES DEVELOPMENT

3.1 Board Independence

Agency theory postulates that the board of directors plays a vital role in managerial supervision to protect investor welfare (Fama & Jensen, 1983). Independent directors, who are external directors with no firm connection, are believed to be impartial due to minimal managerial influence, leading to fair decision-making (Hasnan et al., 2020).

Independent directors possess limited private information compared to managers. Although independent directors have access to the firm's management information, they might still face difficulty gaining pertinent information for monitoring (Raheja, 2005). Additionally, managers might hinder independent directors by refusing to share important information (Harris & Raviv, 2008). Consequently, monitoring executed by independent directors is inefficient due to a lack of access to critical information.

Various studies have investigated if independent boards of directors are influential proctors. According to Peasnell et al.'s (2005), Marra et al.'s (2011), and Talbi et al.'s (2015) studies, a higher ratio of independent board directors is relatively better in restraining discretionary accounting practices and decreases EM. A larger number of independent directors ensure effective control of aggressive accounting habits. Nonetheless, Abdullah and Mohd-Nasir's (2004) and Abdul-Rahman and Mohamed-Ali's (2006) studies postulated that non-executive directors' domination does not confine Malaysian EM. Conversely, Wan-Hussin's (2009) and Abdullah et al.'s (2010) study revealed that independent directors do not significantly influence the financial reporting quality. Alternatively, Hashim and Devi's (2008) and Mohd Fadzilah's (2017) study highlighted that board independence is positively linked with EM practices. This study aims to elucidate the relationship between board independence

and FFR. The following hypothesis was proposed:

H1:   There is a significant relationship between board independence and the FFR likelihood

3.2 Audit Committee Financial Expertise

According to the agency theory, an audit committee serves as the internal regulator that reduces the principal-agent information asymmetry by refining financial reporting reliability. A financially expert audit committee is essential to efficiently monitor the firms' financial reporting process and the relationship between the external auditor and the management (Abdullah & Mohd-Nasir, 2004). Accordingly, the 2017 Malaysian Code of Corporate Governance (MCCG) has been recently amended to necessitate all members of the audit committee to be financially knowledgeable.

A strong background in accounting, finance or law is essential for an audit committee to deal with the company's accounting and financial reporting risk. A financially expert audit committee can successfully justify the negotiations to the management by external auditors on issues related to accounting estimates, judgments, and accounting policies applied (Ng & Tan, 2003). Additionally, an audit committee possessing industry knowledge is beneficial, as accounting guidance, estimates, judgments, and external auditor oversight are unique to a specific industry (Cohen et al., 2014). Conversely, Agrawal and Chadha's (2005) study depicted that it is unclear whether a financially expert audit committee can successfully detect accounting irregularities given the limited time spent reviewing financial statements. Additionally, there is also the possibility that financial expertise presence may lead to other members becoming complacent, reducing the monitoring effectiveness.

Previous studies postulated that the financial expert audit committee reduced discretionary accruals (Xie et al., 2003) and increased financial report quality (Dhaliwal et al., 2010; Kibiya et al., 2016; Gull et al., 2021). Furthermore, Agrawal and Chadha's (2005) and Carcello et al.'s (2011) studies elucidated that more financial experts on the audit committee will reduce FFR. Similarly, Farber's (2005) study indicated the presence of fewer financially expert members in the audit committee among fraud companies compared to the control companies. According to Cohen et al. (2014), audit committees with industry and accounting expertise improve the monitoring effectiveness of an organisation's financial reporting process, rather than a sole accounting expertise. Nevertheless, Badolato et al.'s (2014) study denoted that financial expertise reduces financial irregularities only if the expert has a high

social status. Based on these prior studies, the following hypothesis was proposed:

H2:   There is a significant relationship between audit committee financial expertise and the FFR likelihood

3.3 Family Ownership and Control

The agency theory proposes that firm supervision by large owners or blockholders is vital for overcoming the agency issue. Blockholders are more likely to undertake monitoring costs than small investors, mainly if it allows them to regain their investments (Shleifer & Vishny, 1986).

In Malaysia, most blockholders comprise family shareholders, the majority of which are of Chinese descent (Johnson & Mitton, 2003). The Chinese family firms are high in collectivism, and involve largely in personal business associations. With this culture, Chinese owned businesses are succeeded by the younger family members, thus implementing a long-term commercial investment approach (Ma et al., 2016).

Malaysian family-owned companies comprise family members at the top management who also serve as board members (Wang, 2006; Hasnan et al., 2013). Additionally, major shareholders often serve in managerial roles to influence and regulate the company. There are two competing arguments on the implications of family governance on FFR. Firstly, family-owned organisations have similar firm-family business goals, and are inclined to efficiently supervise managerial activities (Shleifer & Vishny, 1997). Owners that strictly oversee business operations ensure that managerial activities maximise investors' wealth, thus decreasing FFR occurrences. Secondly, family owners may face less severe principal-agent conflicts, but rather more severe principal-principal conflicts with non-family businesses (Sue et al., 2013). According to Bennedsen and Nielson's (2010) study, a controlling owner is not motivated to oversee managers, i.e., themselves. Consequently, enormous family control on the board does not increase oversight efficiency. A family-owned organisation may conceal financial information from outsiders, particularly minor shareholders, to ensure expropriations of assets for private gain, thus aggregating the FFR occurrences.

Previous studies depict that the dominance of controlling family owners enables them to be efficient supervisors (Ma et al., 2016). Contrarily, Filatotchev et al.'s (2011) study highlighted the adversative implications of controlling family owners on business performance. The study indicated that controlling family businesses exploit private firm information, impacting smaller shareholders. Chen et al., 2020 further found that family firms

tend to be more entrenched when the quality of internal control is weak. Nevertheless, Aziz et al.'s (2017) study established an insignificant relationship between FFR occurrences and Malaysian family, government, and institutional ownership. This study empirically investigated the effects of dominance among controlling family ownerships on FFR likelihood. Thus, this hypothesis was proposed:

H3:   There is a significant relationship between family ownership and the FFR likelihood

3.4 Government-Linked Institutional Ownership and Political Connections

Government-linked institutional ownership is another form of ownership among Malaysian listed companies (Ismail & Sinnadurai, 2012) which essentially assists public savings and offers efficient control and supervision of portfolio firms (Muhamed et al., 2014). The unique Malaysian business landscape enables this study to investigate the influence of government-linked proprietorship on the FFR occurrences which cannot be tested in any other institutional setting.

Government investment firms aid in increasing Bumiputera capital ownership and facilitate firms in gaining private finance. Being blockholders in listed firms, government investment firms can alleviate transparency issues and expropriation by refining portfolio management and control (Lau & Tong, 2008). Hashim and Devi (2012) highlighted that government-linked institutional shareholders are more motivated to monitor business activities meticulously. Nonetheless, it is argued that government-linked shareholders lack motivation to perform oversight duties as they are more inclined towards serving the government and attaining public policy goals, hence impacting smaller investors adversely. Abdul Rahman et al.'s (2016) study observed a negative relationship between government-institutional ownership and EM. Contrarily, Haniffa and Cooke's (2002) and Wan-Hussin's (2009) studies found no evidence to corroborate institutional investors' endorsement of financial report transparency.

The government intervention via the Malaysian New Economic Policy (NEP) implementation enabled the government to improve Bumiputera affluence. Nonetheless, this has given way to strong political connections, particularly in company financing, which preferred certain Bumiputera organisations (Perkins & Woo, 2000). Entrepreneurs increasingly utilised private relationships with the government to obtain financial allocations (Gomez & Jomo, 1997). Massive political power and government intrusion in business

activities are driving managers away from increasing investors' capital returns. Abdul Wahab et al.'s (2014) and Al-Dhamari and Ku's (2015) studies indicated that politically associated companies account for lesser earnings quality compared to other firms. Hoang et al. (2022) further demonstrated government connected firms through politically connected directors and government-linked investments are associated with lower financial reporting quality. Based on these arguments, the following hypothesis was proposed:

H4:   There is a significant relationship between government-linked institutional ownership, political connection, and the FFR likelihood

3.5 Working Capital Accruals Management

Previous literature postulated that EM could decrease the quality of financial reports. Managers opportunistically employ EM to disguise the real company's true fiscal performance for rent-seeking motives, impairing the investors. Blockholders or managers engage in EM to exhibit organisational performance favourably to boost stock value or poorly to lower tax liability. These managerial actions increase the FFR likelihood.

Specific accruals are persistent with discretionary accruals and have been extensively investigated. These include working capital accruals which are more vulnerable to EM than non-working capital accruals (Defond & Jiambalvo, 1994; Botsari & Meeks, 2008). Additionally, manipulation of working capital accruals is difficult to uncover due to subjective estimations and no direct money flow implications (Abdullah & Mohd-Nasir, 2004). Kreutzfeldt and Wallce's (1986) study postulated that current accounts, particularly inventory, accounts payable, accounts receivable, and accrued liabilities consist of errors detected by auditors. Judgemental errors, such as underestimating bad debt expenses are consistent with manipulation and often occur in working capital accounts. Furthermore, Guenther's (1994) study argues that earning management is prevalent in current accruals due to the material value and is consistently incurred in routine business operations. Accordingly, Ettredge et al.'s (2010) research indicated a methodical increase in the balance sheet "bloat", or unusually high working capital accounts level, predominantly for FFR firms. Contrarily, Ahmed et al.'s (2008) study reported negative discretionary accruals prior to debt renegotiation due to the reversal of positive accruals or poor firm performance. Based on these mixed findings, the hypothesis below was proposed:

H5:   There is a significant relationship between working capital accruals management and the FFR likelihood

3.6 Real Earnings Management

Real earnings management (REM) is real activities manipulation that departs from normal business practices based on managers' intention to mislead shareholders that certain financial performance goals have been attained in the normal course of business operation (Roychowdhury, 2006). There is no equivalent framework for REM compared to the accruals management which is constrained by the flexibility of accounting techniques permitted by GAAP.

Managers are mandated by investors to make operational and decision-making actions based on superior firm-specific information retained. Accordingly, managers will utilise their judgement in determining the best action based on the economic situation. Managers, thus, have the incentive to manipulate reported earnings using REM in addition to, or in place of, opportunistic accruals management. The REM detection is relatively more challenging to detect compared to the accruals EM practices (Kothari et al., 2016).

Previous studies indicated that accrual EM is halted or replaced with another form of EM when the flexibility of managing accrual earnings is exhausted (Ettredge et al., 2010). Badertscher's (2011) study postulated that organisations opt for REM as a last resort. Conversely, the study indicated that once all within-GAAP EM options have been utilised, the organisation participates in non-GAAP EM to sustain the company overvaluation. Real earnings management practices were found to be more aggressive in fraudulent reporting firms compared to the non-fraud firms (Ali et al., 2018). The study by Enomoto et al. (2015) elucidated that REM is prevalent in strong investor protection countries. This finding indicates the possibility that managers tend to commit REM in weaker investor protected countries, such as Malaysia. The following hypothesis was proposed:

H6:   There is a significant relationship between real earnings management and FFR likelihood

3.7 Financial Distress

Managers favour reporting affirmative earnings progressions to demonstrate excellent company performance (Huang & Scholz, 2012). In addition, earnings growth is often pursued

by management not for its own sake, but to maximise personal gain (Badertscher, 2011). The financial performance growth increases managers' authority due to additional resources being controlled (Jensen, 1986). Managers are frequently remunerated when reporting increased profits and maintaining or increasing stock values (Badertscher, 2011). Moreover, companies will be reprimanded if market expectations are not met. Consequently, managers are pressured to produce steady and expectable market progress, while upholding company valuation. This unrealistic expectation increases FFR occurrences.

A firm's problematic financial condition incentivizes managers to demonstrate positive firm performance by recording profit growth to ensure investor expectations are met (Habib et al., 2013). Subsequently, reporting manipulative profit growth may ultimately increase FFR occurrences. According to Habib et al.'s (2013) and Jacoby et al.'s (2016) study, financially distraught companies unscrupulously manage income to disguise the company financial dilemma. Nonetheless, Leuz et al.'s (2003) study depicted that distressed firms become more conservative when external monitoring is intensified. The following proposition was developed:

H7:   There is a significant relationship between firm distress and FFR likelihood

Managers who engage in opportunistic behaviour are also influenced by various firm-specific factors, such as board size, board meeting, leverage, firm size and firm age (Hashim & Devi, 2008; Chi & Gupta, 2009; Sharma & Iselin, 2012; Hasnan et al., 2020), hence these are included as control variables. This study also included a year dummy variable to control time variation (Ge & Kim, 2014). This year the dummy variable will take the value of '1' if the observation falls within the stated year and '0' if otherwise. This study further controls for earnings aggressiveness variances within various industries.

4.0 RESEARCH DESIGN

This study focuses on four main sectors that made up 72% of the total Malaysian listed firms on the Bursa Malaysia, mainly (i) trading and services, (ii) customer products, (iii) goods, and (iv) industrial products. The four sectors constitute the considerable number of forced restatement cases, and this is in accordance with the relative size of these industries.

The dependent variable, RESTATE, equals one for firm-years with forced financial restatement, and zero otherwise. Due to the lack of a Malaysian restatement database, the FFR

firms were manually identified using the company annual report. Evidence of FFR was determined based on the keywords such as "restate", "restated", "restatement", and "prior year adjustments", in line with Abdullah et al. (2010). Financial statements were deemed to be forced restated based on the US General Accounting Report classification. Restatements due to accounting policy changes were also included as part of the FFR sample, as firms could have misemployed accounting policies for personal benefit. Conversely, companies that restate reported earnings due to the new Malaysian Accounting Standards (accounting restatement) implementations were included in the control group.

This study examined the FFR financial and corporate governance factors during the pre-FFR timeframe (t-1 to t-n). A three-year lagged misstatement period before the FFR was applied. Examining lagged data helps to circumvent endogeneity problems and reverse causality issues. The lagged explanatory variables were collected between 2002 and 2012. In 1999, the Asian financial crisis ended, hence any financial crisis' confounding consequences were omitted from the study sample (Abdullah et al., 2010). Furthermore, the Malaysian Code of Corporate Governance had been implemented for two years, allowing the study to examine the significance of corporate governance and the implication on aggressive accounting.

Table 1: Sample selection of forced financial restatement (2002 -2012)

	Number of firm-years
1) Forced financial restatements (FFR)	
FFR observations	170
Missing observations and negative earnings	(49)
Total FFR observations (A)	**121**
2) Accounting restatement	
Restatement observations due to changes in the Malaysian Accounting Standards (MASB)	1,909
Missing observations and negative earnings	(404)
Total accounting restatement observations (B)	**1,505**
3) Non-forced financial restatements (Non-FFR)	
Non-FFR observations	3,973
Missing observations and negative earnings	(840)
Total non-FFR observations (C)	**3,133**
Total gross firm-year observations	**6,052**
Total missing data	**(1,293)**
Total net firm-year observations (A+B+C)	**4,759**

Based on Table 1, this study highlighted four significant sectors with approximately 634 firms and 6,052 firm-year observations. This information eliminated any missing values and irrelevant negative earnings due to firms' negative net worth. Consequently, 1,293 firm-year observations were removed, and the final sample data was decreased to 626 firms with 4,759 firm-year observations.

Table 2: Variables measurement

Variable	Operationalisation
BI	The ratio of independent non-executive board directors (Chakravarthy et al., 2014).
ACEXP	The ratio of financial expert directors on the audit committee (Badolato et al., 2014).
FM	Indicator variable coded '1' if family members owned at least 20% of total equity or '0' otherwise (Faccio & Lang, 2002; Ismail & Sinnadurai, 2012).
INST	The fraction of equity shareholdings held by government-related institutional investors from the top ten largest equity stockholders (Hashim & Devi, 2012).
PC	Indicator variable coded '1' if the company is connected to a politician who is a prominent investor (at least 10% of voting shares) or if one of the upper managements (CEO, president, vice-president, chairman or secretary) is a parliament member, minister, or closely related to a top politician or party; and '0' otherwise (Abdul Wahab et al., 2014)
WCAC	The working capital accrual was calculated based on the following equation: $$WCAC_{it} = [[\Delta CA_{it} - \Delta CSTI_{it}] - [\Delta CL_{it} - \Delta DCL_{it} - \Delta TP_{it}]] / [(TA_{it} - TA_{it-1})/2]$$ where ΔCA_{it} is current assets change, $\Delta CSTI_{it}$ is cash and short-term investments change, ΔCL_{it} signifies current liabilities change, ΔDCL_{it} is debt in current liabilities change, ΔTP_{it} is taxes payable change, and TA represents total assets (Lobo & Zhao, 2013).
ABCFO	Abnormal cash flow is derived from the following equation: $$CFO_{it} / TA_{it-1} = \beta 1 [1/ TA_{it-1}] + \beta 2 [REV_{it} / TA_{it-1}] + \beta 3 [\Delta REV_{it} / TA_{it-1}] + \varepsilon_{it}$$ CFO_{it} represents operating activities net cash flow, TA_{it-1} is overall assets in year t-1, REV_{it} is revenue, ΔREV_{it} is revenue change, ε_{it} represents the residual term of firm i in year t term.
ABPROD	Abnormal level of production is defined as: $$PROD_{it} /TA_{it-1} = \alpha_0 + \alpha_1(1 / TA_{it-1}) + \alpha_2 (REV_{it} / TA_{it-1}) + \alpha 3 (\Delta REV_{it} / TA_{it-1}) + \alpha 4 (\Delta REV_{it-1} / TA_{it-1}) + \varepsilon_{it}.$$ $PROD_{it}$ signifies production cost, whereas $COGS_{it}$ and ΔINV_{it} represents cost of goods sold and inventory change, respectively. TA_{it-1} is overall assets in year t-1, REV_{it} is revenue, and ΔREV_{it} is revenue change. ΔREV_{it-1} represents revenue change from year t-2 to year t-1, and ε_{it} is a firm i residual term in year t.
ABDISX	Abnormal level of flexible expenses is defined as: $$DISX_{it} /TA_{it-1} = \alpha_0 + \alpha_1(1 / TA_{it-1}) + \alpha_2 (REV_{it-1} / TA_{it-1}) + \varepsilon_{it}$$

	DISX$_{it}$ represents total research and development expenditures, selling, general, and administrative expenses, TA$_{it-1}$ is year t-1 total assets, REV$_{it-1}$ is year t-1 revenue, ε_{it} is a remaining term that observes the abnormal cash flow of firm i in year t (Roychowdhury, 2006).
DISTRESS	Financial distress is measured by using the Altman's (1993) Z"-score model: Z" = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4); Where X1 = WC$_{it}$ / TA$_{it}$; X2 = RE$_{it}$ / TA$_{it}$; X3 = EBIT$_{it}$ / TA$_{it}$; X4 = BVE$_{it}$ / TL$_{it}$ Where WC represents working capital, TA$_{it}$ is total assets, RE is retained earnings, EBIT is pre-tax and interest incomes, and BVE represents the equity book value.
BDSIZE	Quantity of board members (Hashim & Devi, 2008).
BDMEET	Quantity of yearly board meetings (Hashim & Devi, 2008).
LEV	The proportion of long-term debt to total assets (Hasnan et al., 2020).
LNTA	Natural logarithm of total assets (Hasnan et al., 2020).
AGE	The log of the number of years the firm has been listed (Hasnan et al., 2020).
IND	An array of fifty-six industry dummies, where firm belongs to one of the fifty six primary two-digit Standard Industrial Classification (SIC) industry codes.
YEAR	An array of eleven fiscal year dummies from 2002 to 2012, but 2002 is randomly omitted to avoid perfect multicollinearity.

4.1 Empirical Model and Analysis

A multivariate logit model was utilised to examine the hypotheses (see Equation 1). The dependent variable RESTATE represents one for firm-years with FFR, and zero if otherwise. Conversely, the explanatory variables represented firm-specific financial and corporate governance attributes. Equation 1 was formulated as follows:

$$RESTATE_i \, (0, \, 1) = \alpha + \beta_1 BI_i + \beta_2 ACEXP_i + \beta_3 FM_i + \beta_4 INST_i + \beta_5 PC_i + \beta_6 WCAC_i +$$
$$\beta_7 ABCFO_i + \beta_8 ABPROD_i + \beta_9 ABDISX_i + \beta_{10} DISTRESS_i + \beta_{11} BDSIZE_i + \beta_{12} BDMEET_i +$$
$$\beta_{13} LEV_i + \beta_{14} LNTA_i + \beta_{15} AGE_i + \sum_{K=1}^{56} \quad \beta KIND_i \in K + \sum_{t=1}^{11} \quad \beta_t YEAR \, t + \varepsilon_{it-1z}$$

(1)

5.0 RESULTS AND DISCUSSION

This section compares the FFR and non-FFR firm-years based on descriptive statistics. Results in Table 3 indicated significant mean differences for INST and DISTRESS. The mean INST value for FFR firms was 0.252 and non-FFR firms were 0.181, both significant at the 1% level. Therefore, FFR firms have a higher proportion of government-related institutional ownership. This result is corroborated by Aziz et al.'s (2017) study that postulated the lack of incentive

among investee companies to enhance disclosure quality since the government can provide guaranteed returns and easy access to government funds. Nonetheless, the FFR firms' mean for DISTRESS was 4.656 compared to 5.771 for non-FFR firms, with a significant mean difference at the 1% level. On average, FFR firms have an inferior financial condition level than non-FFR firms. According to Gul et al.'s (2018) study, highly distressed organisations are inclined to exhibit opportunistic financial reporting.

Table 3: Mean and median differences between forced financial restatement and non-forced financial restatement firm-years

		N	Mean	SD	Mean diff.	*t*-value
PANEL A (Continuous Variables)						
Independent variables:						
BI	FFR	119	.418	.116	.005	.490
	NFFR	4420	.423	.110		
ACEXP	FFR	119	.427	.218	.018	.932
	NFFR	4399	.445	.210		
INST	FFR	119	.252	.436	-.071	-1.966**
	NFFR	4420	.181	.385		
WCAC	FFR	116	.013	.104	.014	.1.350
	NFFR	4403	.026	.109		
ABCFO	FFR	76	-.001	.086	-.010	.773
	NFFR	3041	.009	.110		
ABPROD	FFR	76	.033	.049	.006	.919
	NFFR	3041	.039	.055		
ABDISX	FFR	76	-.000	.089	.005	-.486
	NFFR	3041	-.005	.084		
DISTRESS	FFR	121	4.656	3.894	1.115	2.587***
	NFFR	4638	5.771	4.697		
Control variables:						
BDSIZE	FFR	119	7.420	1.893	.148	.860
	NFFR	4420	7.568	1.850		
BDMEET	FFR	119	5.529	2.314	-.414	-2.301**
	NFFR	4399	5.115	1.927		
LEV	FFR	121	.125	.135	-.045	-4.631***
	NFFR	4636	.081	.105		
LNTA	FFR	121	13.231	1.654	-.492	-3.861***
	NFFR	4638	12.739	1.377		
AGE	FFR	121	2.750	.908	+	-1.845*

| | | NFFR | 4638 | 2.591 | .937 | | |

PANEL B (Dichotomous Variables)						
	Frequency FFR	Frequency NFFR	Mean FFR	Mean NFFR	Mean diff.	*t*--value
FM	119	4420	.487	.584	.097	2.128**
PC	119	4420	.244	.107	-.136	-4.678***
*Notes: FFR represents forced financial restatement firms, and NFFR represents non-forced financial restatement firms. The *, ** and *** indicate 10%, 5%, and 1% significance levels accordingly.*						

There were no significant mean differences for other independent variables; nevertheless, the different financial and corporate governance characteristics of Malaysian listed firms are worthwhile to be examined. The BI mean value was recorded at 0.418 (41.8%) and 0.423 (42.3%) for the FFR and non-FFR firms, respectively. The findings are consistent with Hasnan et al.'s (2020) study that depicted less than half of the board members are independent and is aligned with Recommendation 4.1 of the 2017 MCCG. Moreover, the ACEXP indicates a smaller mean for FFR firms (0.427) than non-FFR firms (0.445). This smaller ACEXP value in FRR firms is corroborated by Hasnan et al.'s (2020) study, whereby less than half of the audit committee is financially proficient. These findings explain the new 2017 MCCG requirement that all audit committee members must be financially knowledgeable.

The FFR firms' WCAC demonstrates a lower mean of 0.013 than the non-FFR firms' of 0.0266. This lower mean implies that FFR firms report lower working capital accruals than the control group. The result indicates that FFR managers choose to liquidate working capital, possibly to conserve additional cash (DeAngelo et al., 1994). The low WCAC of FFR firms corroborates their poor financial conditions as revealed by the lower DISTRESS mean. Furthermore, the ABCFO and ABPROD variables were lower for FFR firms at -0.001 and 0.033, respectively, than 0.009 and 0.039 for non-FFR firms. It is shown that FFR firms produce lesser abnormal cash flow and incur lesser abnormal production costs, suggesting that these firms engage fewer real earnings management practices than their counterparts. Nonetheless, the mean ABDISX is slightly higher for FFR firms at -0.000 compared to -0.005 for non-FFR firms.

All control variables show significant mean differences except for BDSIZE. The BDMEET mean was higher for FFR firms at 5.529 than non-FFR firms at 5.115, at a 5% significance level. This higher BDMEET result could indicate that FFR firms face difficulties,

and frequent board meetings are held to be updated and overcome the problems faced. Conversely, the BDSIZE mean for FFR firms was 7.420, and NFFR firms was 7.568, which were insignificant. This result aligns with Hasnan et al.'s (2020) study that postulated the average board member quantity to be between seven and eight.

Table 3 indicated a higher LEV mean for FFR firms at 0.125 than 0.081 for NFFR firms, at the 1% significance level. Based on the results, FFR firms are highly leveraged and are more susceptible to opportunistic financial reporting than non-FFR firms (Nalarreason et al., 2019). The LNTA and AGE variables demonstrate a significantly higher mean for FFR firms at 13.231 and 2.750, compared to non-FFR firms at 12.739 and 2.591, respectively. The result demonstrates that FFR occurs in larger and older firms aged 14 to 15 years. The chi-square test results for the dichotomous variables were also shown in Table 3 and indicate that the FM variable was significantly lower for FFR firms with mean 0.487 compared to the 0.584 for non-FFR firms. These results imply that family ownership is relatively smaller among FFR firms than NFFR firms. This is initial evidence that family shareholders are an effective monitoring mechanism to ensure high-quality financial reporting. Conversely, the PC variable shows a significantly higher frequency for FFR of 0.244 than 0.107 for NFFR. The high political connection among FFR leads to impaired monitoring efficacy and pushes managers away from maximising shareholders' investment return.

Table 4 demonstrates the correlation between the independent and control variables based on Pearson's correlation analysis. According to Gujarati's (2011) study, potential multicollinearity issues may arise if the correlation coefficient exceeds 0.8. Consequently, multicollinearity can cause an inflated parameter estimates variance, resulting in erroneous inferences about the dependent and independent variables. Nonetheless, the correlation values of the study are all less than 0.5, indicating no multicollinearity.

Table 3: Pearson correlation matrix for the combination of forced financial restatement and non-forced financial restatement firm-years

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.000														
2	.036***	1.000													
3	-.134***	.005	1.000												
4	-.024	-.027*	-.244***	1.000											
5	.024*	-.023	-.251***	.306***	1.000										
6	-.010	.034***	.056***	-.058***	-.057***	1.000									
7	-.002	-.020	.003	.059***	.032*	-.337***	1.000								
8	.002	.041***	-.040**	.019	.011	.188***	-.340***	1.000							

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
9	.011	.003	.036**	-.019	-.028	-.019	.040**	-.175***	1.000						
10	-.054***	-.003	.061***	-.024	-.101***	-.010	-.152***	-.105***	.023	1.000					
11	.270***	-.093***	.017	.215***	.099***	.043***	-.068***	.007	-.098***	-.014	1.000				
12	.097***	.020	-.173***	.328***	.202***	.041***	-.018	.055***	.038***	-.085***	.121***	1.000			
13	.061***	.001	-.104***	.121***	.132***	-.020	-.036**	-.004	.054***	.394***	.072***	-.162***	1.000		
14	.067***	-.026*	.219***	.403***	.335***	.071***	-.026	.031*	.042***	.142***	.289***	.309***	-.399***	1.000	
15	-.124***	-.063***	.190***	.104***	.159***	-.120***	-.048***	-.053***	-.016	.047***	.080***	.155***	-.068***	.331***	1.000

Notes: *i. (1) BI: proportion of independent directors on the board; (2) ACEXP: proportion of financially expert directors on the audit committee; (3) FM: dummy coded 1 for family firm (4) INST: percentage of government-related institution ownership; (5) PC: dummy coded as 1 for politically-connected firm; (6) WCAC: working capital accrual; (7) ABCFO: abnormal cash flow; (8) ABPROD: abnormal production cost; (9) ABDISX: abnormal discretionary expenditure; (10) DISTRESS: firm's financial health condition; (11) BDSIZE: number of board members; (12) BDMEET: number of board meetings; (13) LEV: ratio of firm leverage; (14) TA; log of total assets; and (15) AGE: firm age. ii. *, ** and *** denote significance at the 10%, 5% and 1% level accordingly.*

Based on Table 5, the chi-square of the Wald test indicates that the goodness of fit of the model is highly significant at $x2$ (15, n = 2,585) = 91.71, $p < 0.01$. The independent variables enable the model to predict the FFR occurrence. Moreover, utilising the pseudo $R2$ value of 0.077, the FFR and NFFR firms were classified into individual groups at an overall rate of 97.06%. Furthermore, the Hosmer and Lemeshow test revealed that the model is valuable, where the chi-square value was 14.5, at 0.07 significance. The chi-square value was greater than 0.05, supporting the model.

The five independent variables that demonstrate a significant relationship with FFR are shown in Table 5. Based on the results, hypotheses H1, H4, H5, H6, and H7 were supported. The result shows that BI was significantly and negatively correlated to the probability of FFR. Previous research corroborates these results (Peasnell et al., 2005; Marra et al., 2011). These findings postulated that weak board independence impedes effective management oversight, hence, increases the FFR likelihood which confirms the H1 of this study.

PC positively correlates with FFR at the 10% significance level. This finding corroborates previous Malaysian research that depicts the inefficiencies of politically associated firms due to cronyism (Johnson & Mitton, 2003; Gul, 2006) and has a greater tendency to misstate earnings (Hasnan et al., 2013; Abdul Wahab et al., 2014). The positive relationship between a firm's political association and FFR supports H4.

The WCAC is negatively related to the FFR likelihood at the 10% significance level. Results indicate that FFR firms report less working capital, accounts receivables, and inventories. There is a possibility that FFR firms may have reversed prior income increasing accruals and thus report lower working capital (Ahmed et al., 2008).

The ABCFO depicted a negative relationship with FFR likelihood at a 5% significance level. Alternatively, ABPROD and ABDISX were insignificant. The FFR firms might have accelerated sales through real earnings management, such as introducing high price discounts and lenient credit terms, which eventually reduce FFR firms' abnormal cash flow (Roychowdhury, 2006; Cohen & Zarowin, 2010).

There was a negative relationship between DISTRESS and FFR likelihood at the 10% significance level which implies that FFR firms generally have low financial distress. The FFR firm's financial condition appears healthy, possibly due to the accumulated cash reserve observed from the working capital accruals decrease. Nonetheless, the stable financial condition may be temporary due to the negative ABCFO, harming FFR firms in the long run. These results contradict Habib et al.'s (2013) and Hasnan et al.'s (2013) studies that found the

likelihood for firms to misstate earnings when they are in financial distress.

Several variables, including ACEXP, FM, and INST showed insignificant relationships with the FFR likelihood. The insignificant result for ACEXP is consistent with Hasnan et al. (2020) and implies that this particular audit committee attribute is inadequate to guarantee a quality financial reporting on its own, what more to address issues of FFR. To enhance effectiveness, the audit committee needs to be small-sized, independent and active (Zgarni & Fedhila, 2019). The insignificant result might also be due to the number of audit committee expertise that ranges only between one to two members in the sample firms, just enough to fulfil the requirement of paragraph 15.09(1) of MLMR to have at least one committee member who is an expert in accounting matters (Hasnan et al., 2020).

The insignificant FM and INST results imply that family ownership and government-related institutional ownership does not affect the likelihood of FFR. The negative coefficient somehow suggests that family ownership and government institutional ownership have a higher tendency to constrain from the occurrence of FRR. It is consistent with the alignment effect hypothesis that argues highly concentrated ownership, with aligned ownership and management, contribute to goal congruence between managers and shareholders, where shareholder wealth is maximised and earnings are reported in good faith (Hasnan et al., 2013; Wan Muhammad et al., 2019). Nonetheless, consistent with Aziz et al. (2017), the study found the insignificant effect of family ownership and government institutional ownership and the likelihood of FFR.

In respect of the control variables, only BDSIZE and LNTA showed significant results. The BDSIZE is negatively related to FFR likelihood at the 1% significance level. The result implies that the small BDSIZE may lead to inadequate supervision due to responsibility expulsion and a limited board members to execute corporate duties, increasing the FFR likelihood. As for LNTA, it positively relates to FFR likelihood at the 5% significance level. Larger firms are subjected to additional inspection by analysts and shareholders, which pressures larger firms to adopt aggressive accounting choices, leading to FFR (Gleason et al., 2008).

Table 4: Multivariate logit regression model investigating the Malaysian forced financial
restatement determinants

Variables	Hypothesis	Logit Model			
		Coefficient B	SE	Z-statistic Wald	*P-value*
BI	H1	**-2.837**	**1.357**	**-2.09****	**.037**
ACEXP	H2	.010	.548	.02	.985
FM	H3	-.127	.222	-.57	.566
INST	H4	-.047	.276	-.17	.864
PC	H4	**.669**	**.368**	**1.82***	**.069**
WCAC	H5	**-1.792**	**1.075**	**-1.67***	**.096**
ABCFO	H6	**-2.147**	**1.028**	**-2.09****	**.037**
ABPROD	H6	-4.393	2.934	-1.50	.134
ABDISX	H6	.683	2.131	-.32	.749
DISTRESS	H7	**-.048**	**.027**	**-1.78***	**.075**
BDSIZE		**-.197**	**.069**	**-2.87*****	**.004**
BDMEET		-.015	.064	-.24	.812
LEV		.698	1.126	.62	.535
LNTA		**.236**	**.110**	**2.15****	**.032**
LNAGE		-.094	.156	-.60	.546
Constant		-3.391	1.510	-2.24	.025
Industry dummies		Included			
Year dummies		Included			
Observations		2,585			
Wald Chi^2		91.71			
p-value		**.000**			
Degrees of freedom		42			
Nagelkerke R^2		.077			

Notes: The *, ** and *** represent the 10%, 5% and 1% significance levels, respectively.

6.0 CONCLUSION

FFR generates substantial apprehension among investors as it affects trust in the financial reporting quality and the reputation of the firm. In extreme conditions, the lack of trust in the organisations' financial reporting can lead to greater capital costs for listed and non-listed companies, as debt and equity shareholders would mandate greater risk premiums. This study investigated the financial and corporate governance factors that indicate the Malaysian FFR

likelihood between 2002 and 2012. The data comprises 121 FFR and 4,638 non-FFR firm-year observations. Whilst forced restatement is a rare event, as evidenced by only 2.5% Malaysian FFR firms of the sample, the occurrences must be studied since FFR causes disastrous implications for shareholders, auditors, and regulators.

The study findings indicate that board independence, political connection, working capital accruals, real earnings management, and financial distress significantly influence Malaysian public listed firms FFR occurrence. The results also indicate that a higher ratio of independent board directors leads to reduced FFR occurrences. Accordingly, the board independence improves oversight duties efficacy, minimising opportunistic managerial behaviours that lead to FFR. This finding clarifies the doubt that arose based on KPMG (2013) report on whether independent directors who are mostly appointed among former politicians and retired civil servants are effective board members. More importantly, appointment and reappointment of the independent directors can be controlled by the shareholders, hence the pressure imposed on the independent directors to carry out efficient close monitoring on managers. It is therefore concluded that board independence improves the efficacy of oversight duties and thus minimises opportunistic managerial behaviour, which leads to FFR.

The regression analysis revealed a positive relationship between PC and FFR occurrence. Al-Dhamari and Ku (2015) explains how political association may adversely affect earnings quality. On the one hand, PC firm managers tend to hide government benefits utilised to increase personal affluence at the minority investors' expense. On the other hand, the government may pressurise politically connected firms to conceal information on the government and cronies' expropriation. As such, earning quality deterioration to conceal political-related benefits increases FFR occurrences.

The study documented a significant inverse relationship between the change in working capital and the likelihood of FFR. The result suggests that FFR firms may have reversed prior income increasing accruals and report a lower level of accounts receivables, inventories and working capital (Ahmed et al., 2008). According to Pryshchepa et al. (2013), firms typically engage in aggressive accruals management using a working capital account to signal a future prospect to be more superior to the investors' expectations. Current accruals are susceptible to manipulation due to the material value routinely incurred in daily commercial operations (Guenther, 1994). The study concludes that firms with a low-level working capital change are more likely to commit FFR.

This study identifies an inverse relationship between ABCFO of real earnings

management and the FFR. The finding suggests that FFR firms are prone to boosting sales via significant sales discounts and lenient credit terms to accelerate sales volume, leading to increased earnings for the financial year. Accruals management practices are subject to the GAAP flexibility, however no comparable framework exists for real earnings management. Based on this deficiency, managers are incentivized to engage in real earnings management as it is more difficult to detect than accruals earnings management (Kothari et al., 2016).

Finally, financially distressed firms demonstrate a negatively significant relationship with the FFR likelihood. FFR firms are presumed to be financially healthy due to the accumulated cash reserve shown by the working capital decrease. It is also possible that firms may conceal deteriorating financial performance to appear favourable, increasing FFR occurrences. However, the FFR firm value may be impaired in the long term as FRR firms' abnormal cash flow are seen to deteriorate due to the real earnings management practices.

Overall, this study refines the quality of financial reporting especially for Malaysian regulators to develop appropriate strategies in dealing with firms exhibiting FFR symptoms. In relation to the corporate governance aspect, regulators need to emphasise higher quality boards by defining the term "independent" more strictly, compared to prioritising the director quantities. This study is vital for the regulators to develop effective policies to strengthen the audit committee and restrict firms' political relationships. Findings from this study further provide insights that enable regulators to establish reporting standards and strategies that can reduce discretionary accruals manipulation, in line with efforts to promote trustworthy financial reporting and a more resilient Malaysian capital market. This study further contributes to the literature by providing important insights for the prediction of FFR likelihood prior to the full effect of the Malaysian full convergence with IFRS in 2012. Future research may extend the period of observation in examining how the findings may differ based on post Malaysian IFRS data.

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