

# Integrated Business Model – Technology (IBM-T) reporting trends: Pre and Post Malaysian Code of Corporate Governance (MCCG) 2017

Dayana Mastura Baharudin

Universiti Sains Malaysia, Penang, Malaysia and Universiti Teknologi PETRONAS, Malaysia

Maran Marimuthu

Universiti Teknologi PETRONAS, Malaysia

Haslindar Ibrahim (Corresponding Author)

Universiti Sains Malaysia, Malaysia. Email: haslindar@usm.my

Amin Jan

Universiti Malaysia Kelantan, Malaysia

Yusuf Babatunde Adeneye Universiti Malaysia Kelantan, Malaysia

Hana Halini Hamzah Universiti Teknologi PETRONAS, Malaysia

Mohd Ikhwan Izzat Zulkefli Universiti Teknologi PETRONAS, Malaysia



Normardhiah Ibrahim

Universiti Teknologi PETRONAS, Malaysia

Received: October 18, 2022Accepted: December 4, 2022Published: December 11, 2022doi:10.5296/bms.v13i2.20373URL: https://doi.org/10.5296/bms.v13i2.20373

#### Abstract

**Purpose** – This research examines the effects of the five primary factors that determine the top 100 Malaysian Public Listed Companies (PLCs) adoption of the Integrated Business Model - Technology (IBM-T), influenced by the presence of the Women on the Board of Directors, Independent Board members, and the Integrated Reporting 8 Content Elements initiatives.

**Design/methodology/approach** – In order to explore the reporting of the IBM-T, the study have used the selective sampling method, means and standard deviation, document analysis, regularity of voluntary disclosure trend analysis, and the Paired-Sample T-Test derived from the MCCG 2012 and the MCCG 2017, as well as past research of the examination of the annual reports and integrated reports.

**Originality/value** – In this paper, new research advancements in the areas of integrated reporting, business models, MCCG 2012, and MCCG 2017 are systematically reviewed. Other PLCs than Malaysian PLCs might use the ranking indices for the Integrated Business Model - Technology, Women Board of Directors, Independent Board of Directors, and the Integrated Reporting 8-Content Elements.

**Keywords:** MCCG 2012, MCCG 2017, integrated reports, business model, technology, board of directors, and diversity

#### I. Introduction

As part of a broader initiative to meet the requirement of a new method for assessing and connecting the creation of value of the company, Global Reporting Initiatives (GRI) developed a new reporting model known as the Integrated Reporting (<IR>) in 2011. The International Integrated Reporting Committee (IIRC) was founded by the UN Development Programme (UNDP) in 2011. (IIRC, 2021; IIRC, 2013). The purpose of this reporting framework is to fill the void in the present method of traditional corporate reporting by consolidating and clearly expressing the vast majority of a company's disparate reports within a single document. Value creation in the short, medium, and long term may be demonstrated by illustrating the interdependencies among an organization's strategy, governance, risk and potential horizon, foundation for preparedness and delivery, and future prospects. Our existing traditional corporate structure has been shown to be flawed and insufficient by the



global financial crisis; financial statements inadequately evaluate a company's value and its potential to produce profit (Oyong, Aguolu, Bahakonfe & Ohanya, 2022; Adhariani & de Villiers, 2018; Kilic & Kuzey, 2018).

The Malaysian Institute of Accountants (MIA) is the leading voice in the country when it comes to encouraging investors and businesses to adopt integrated reporting practises. The Malaysian Code of Corporate Governance places an emphasis on integrated reporting, and the Securities Commission of Malaysia plays a role in urging big firms to adopt this reporting method in advance of preparing their annual reports. At this time, integrated reporting is being adopted by Malaysian public listed firms on a strictly voluntary basis.

Due to the fact that integrated reporting is not mandated in Malaysia, the company's management and investors might face issues of information asymmetry. This is due to the fact that shareholders lack the authority to take part in management activities while management is accountable for the company's management. Therefore, stronger business disclosures are required to rectify the imbalance of power that has developed between investors and management. Previous studies suggested that voluntary disclosures might reduce the knowledge asymmetry between the firm and its investors, resulting in the lower of the company's capital cost (Dhaliwal, Li, Tsang & Yang, 2011). An increase in investor trust in a firm is possible once the problem of information asymmetry is solved (Hoque, 2017). Thus, investors are showing increased enthusiasm in buying shares of the firm. This has the potential to boost both the company's bottom line and the market value of its shares (Diamond & Verrecchia, 1991).

To investigate the effect of integrated reporting disclosures, we follow the lead of the voluntary disclosure literature and establish a connection between integrated reporting disclosures and business performance (Lok & Phua, 2021).

Consistent with agency theory, it demonstrates how increased corporate transparency may mitigate information disparity. As a result, enhancements to the company's overall performance are anticipated.

The four research objectives for this study are as follows; (i) To examine the levels of disclosure of the IBM-T across the Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017; (ii) To examine the level of disclosure of the Principle A – MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017; (iii) To examine the disclosure extent of the IBM-T as a comparison across pre-MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board post-MCCG 2017 (iv)To examine the disclosure extent of the Principle A – MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements as a comparison across pre-MCCG 2017: 100% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: 100% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: 100% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: 100% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: 100% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: 100% Principle Reporting 8 Content Elements as a comparison across pre-MCCG 2017 and post-MCCG 2017.

The four research questions for this study are as follows; (i) What are the levels of disclosure



of the IBM-T across the Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017? (ii) What are the levels of disclosure of the Principle A – MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017? (iii) Does the disclosure extent of the IBM-T reflect significant difference as a comparison across pre-MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017? (iv)Does the disclosure extent of the Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements reflects significant difference as a comparison across pre-MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements reflects significant difference as a comparison across pre-MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements reflects significant difference as a comparison across pre-MCCG 2017 and post-MCCG 2017? (30% Principle C – MCCG 2017: Integrated Reporting 8 Content Elements reflects significant difference as a comparison across pre-MCCG 2017 and post-MCCG 2017?

In order for publicly traded firms to maintain their credibility in the eyes of its stakeholders and the general public, it is essential that they create and compile significant data for stakeholder and internal planning use, which is why the suggested research is so crucial. To guarantee the development of corporate governance throughout the PLCs, the MCCG 2017 must be implemented progressively in 2018. In order to avoid any implementation challenges on the way to attaining firm performance, this study introduces a revolutionary intelligent and Integrated Business Model -Technology (IBM-T).

### 2. Literature Review

The structure of integrated reporting is built on a number of guiding principles. Corporations were not required to use any specific measuring techniques, key performance indicators, or disclosures of separate components in order to produce an integrated report. The individual in charge relies heavily on his or her own professional judgement to decide what information should be made public and how. Business model, strategy and allocation of resources, governance, organisational overview and external environment, future outlook, risks and opportunities, performance, and foundation of presentation are only a few of the eight content elements that make up integrated reporting. Stakeholder connections, consistency and future orientation, and interconnection of information are the seven guiding principles outlined to produce and deliver an integrated report. Financial and non-financial information that are relevant to assess the company's current and future performance may be linked together more clearly if the report adheres to certain content aspects and guiding principles (Lok & Phua, 2021).

In an integrated report, the business model serves as the foundation for a discussion of value generation. Organizations can't produce value for their stakeholders without first fully comprehending the material input capitals, interdependencies, and skills on which they rely (PricewaterhouseCoopers, 2015).

PricewaterhouseCoopers (PwC) (2015) reaffirmed that good corporate reporting should include the following: 1. Key components and how they relate to the capitals from which they



are derived; 2. Core business activities, considering such factors as: i.How the organisation differentiates itself in the marketplace, ii. The extent to which the business model relies on revenue generation after the initial point of sale, iii. How the organisation approaches the need to innovate, iv. v. Key results in terms of the capitals, including internal and external outcomes, v. Key outputs, elaborating on the products and services that the organisation puts on the market, and material by-products and trash.

Less than half of the firms analysed used the word "business model" in their reporting, according to a PricewaterhouseCoopers (2015) study, and of those that did, the vast majority offered no more insight into the value-creating activities of their organisation.

More importantly, PwC (2015) discovered that few businesses recognised outputs from their operations beyond a simple description of items and services sold. To fully comply with the standards of Integrated Reporting, organisations must consider not only the monetary but also the social and human capital impacts of their operations. It is important to keep in mind that the input capitals and output capitals may not be identical in cases where a company's operations have an influence on both.

PwC (2015) found that 44% of organisations are reporting the phrase "business model" in their current activities. Only 2% clearly describe their areas of competitive advantage, and only 2% provide any explanation of distinctions in segmental business models; 14% place their business model in a strategic framework, and 12% connect it to value creation; 12% utilise visuals to assist in explaining their business model.

Securities Commission Malaysia has issued a new Malaysian Code on Corporate Governance 2017 ("MCCG"), which replaced the 2012 code on April 26, 2017. In an effort to improve the quality of corporate governance in Malaysian businesses, the new MCCG includes several new provisions and recommendations. After using the "comply or explain" strategy in the 2012 code, the MCCG has switched to the "apply or explain an alternative" approach, which is part of the CARE methodology (an acronym for "Comprehend, Apply, and Report"). This is expected to provide for more leeway when putting the best practises into action.

The new MCCG applies differently to different businesses based on their size, complexity, and other factors. Firms on the Bursa Malaysia Top 100 Index or with a market capitalization of RM2 billion or more at the beginning of their financial year are considered "Large Companies" for the purposes of the MCCG, while smaller companies are not. For further accountability, transparency, and sustainability, the MCCG now officially urges non-listed companies such as state-owned businesses, SMEs, and licenced intermediaries to adopt the MCCG (Securities Commission Malaysia, 2017; Securities Commission Malaysia, 2021).

There is now a requirement for companies to provide meaningful explanations in their annual reports on how the practises are applied and, where alternative practises are adopted to meet the intended outcome, to provide reasons for such alternatives and, where appropriate, the time frame required for its implementation. Companies with fiscal years ending 31 December 2017 will be the first to have to provide a statement on their compliance with the MCCG in



their annual report.

The three new initiatives introduced within MCCG 2017 have been different from the previous MCCG published in 2012 and have been selected as the moderator variables for this study which are the 50% Independent Board of Directors, the 30% Women Board of Directors and the publication of the Integrated Report to replace the traditional Annual Report and Sustainability Report.

In terms of the board composition as per the previous MCCG 2012, the board must comprise a majority of independent directors where the chairman of the board is not an independent director. This is in contrast of the new code of the MCCG 2017 where at least half of the board should comprise of independent directors. For large companies which is defined as companies on the Bursa Malaysia Top 100 index or companies with market capitalization of RM 2 billion and above at the start of the companies' financial year.

In terms of board diversity as per the previous MCCG 2012, the commentary of the Code recommended companies to establish a policy on boardroom diversity in terms of gender diversity on boards. This is in contrast with the new MCCG 2017 in which the board is required to disclose the company's policies to appoint women to the board, its targets, and measures to meet those targets. Large companies are advised to allocate 30% Women Board of Directors as per MCCG 2017.

In terms of the Integrated Reporting 8-Content Elements which was only introduced in MCCG 2017 under Principle C: Integrity in Corporate Reporting and Meaningful Relationship with Stakeholders which is a new proposed practice in which large companies are encouraged to adopt integrated reporting based on a globally recognized framework. This proposal was not recommended in MCCG 2012.

#### Theory of the Stakeholders

When the principal, who is the owner of the firm, gives the agents, who are the managers, the right to make decisions on behalf of the principal, an agency relationship is formed, as described by Jensen and Meckling (1976). Informational inequity between owners and managers is a common cause of the agency problem. Agency theory suggests that boards benefit from having at least half or significant percentage independent directors in accordance with MCCG 2017's guidelines since it strengthens the board's independence and its ability to perform its monitoring duty.

#### Theory of the Agency

The agency connection is crucial to the success of a company and the effectiveness of its board (Jensen and Meckling, 1976). More independent oversight of executives and leadership teams is possible with boards that reflect the communities they serve (Hassan, Marimuthu and Johl, 2016; Carter et al, 2003). Female board members are supposed to perform superior monitoring, surveillance, and consultation duties than their male colleagues, according to the Agency theory (Azmi and Barrett, 2013). Having a greater number of women on the board of



directors may improve the company's standing in the market (Luckerath-Rovers, 2013).

#### **Conceptual Framework**



Figure 1. Conceptual Framework

On April 26, 2017, the Malaysian Securities Commission Malaysia introduced a new set of guidelines for corporate governance in Malaysia called the Malaysian Code of Corporate Governance 2017 (MCCG 2017). New suggestions for better corporate governance standards have been included in the updated MCCG 2017 for Malaysian businesses.

The 'comply or explain' approach of MCCG 2012 has been replaced by the 'apply or explain an alternative' approach of MCCG 2017 via the CARE methodology (an acronym for the term 'Comprehend, Apply, and Report'). A larger degree of leeway in applying the code of best practise is expected with the new Code (Christopher & Lee Ong, 2017).

#### Hypotheses of the Study:

**Hypothesis 1:** There is a significant increase in the disclosure extent of the IBM-T across Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017.

**Hypothesis 2:** There is a significant increase in the disclosure extent of the Principle A – MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across Malaysian PLCs as comparison across pre-MCCG 2017 and post-MCCG 2017.

**Hypothesis 3:** There is a significant difference in the disclosure extent of the IBM-T across Malaysian PLCs as a comparison across pre-MCCG 2017 and post-MCCG 2017.

Hypothesis 4: There is a significant increase in the disclosure extent of the Principle A -



MCCG 2017: 30% Woman Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across Malaysian PLCs as a comparison across pre-MCCG 2017 and post-MCCG 2017.

#### **3.** Methodology of the Study

This study delves at a subset of the 900 Malaysian PLCs listed on Bursa Malaysia, all of which produce Annual Reports or Integrated Reports.

The information was amassed between 2015 and 2019. This research suggested selecting the top 100 PLCs based on market capitalization from the Bursa Malaysia stock exchange.

This study has adopted the use of the scoring index for the independent variables and the moderator variables. The scoring index was used as a tool of measurement as it is a tool that can measure a construct using more than one data item and it can accommodate an accumulation of scores from a variety of individual items. Scoring—index is an ordinal measure of variables as they may rank-order the units of analysis in terms of specific variables.

This study has adapted the conversion from the ordinal data obtained from the scoring-index for all the 5 independent variables and 3 moderator variables to ratio data as it is useful to transform the variable to parametric scores to be able to use correlations and linear regressions for data analysis and interpretations (Johnson & Creech, 1983).

The descriptive statistics approach was employed for this investigation. Annual or integrated reports were analysed using quantitative content analysis to examine the frequency of disclosures. Pre and post MCCG 2017 samples were compared for the Integrated Business Model - Technology and its moderator factors (women on the board of directors, independence of the board of directors, and the presence of the Integrated Reporting 8-Content Elements) using a paired-sample t-test.

The years 2015 and 2016 were selected since the MCCG 2012 was still operational and had reached full maturity by that time. Companies are in the midst of a transition from MCCG 2012 to MCCG 2017, thus 2017 was chosen since it is probable that the modifications announced in MCCG 2017 have not yet been implemented. The years 2018 and 2019 were selected to examine the possibility of the new Code that has been gradually adopted and to see the influence of the amendments introduced in MCCG 2017. Thus, the data collected over the course of these five years will allow the researcher to separate the pre- and post-MCCG 2017 impacts under study.

When it comes to research and financial disclosures, content analysis is by far the most common and commonly utilised technique (Zahid and Ghazali, 2015; Boesso and Kumar, 2007). Quantitative and qualitative metrics can be used in content analysis. Research has shown that quantitative content analysis is the most trustworthy method (Zahid and Ghazali, 2015; Day and Woodward, 2009). Quantitative content analysis was applied in this investigation.



#### 4. Results and Discussion

In this section, results are discussed based on the hypotheses of the study that addressed the research questions (RQ) of the study. The detail of each research question is discussed based on its represented hypotheses. The details are given as follows.

The results below depicted as per Table 1, Table 2, Figure 2, Table 3 and Table 4 addresses Research Question 1, Research Objective 1 and Hypotheses 1 of the study.

Table 1. Descriptive Statistics - Integrated Business Model - Technology from 2015 to 2019

	INPUT	r (INP)		BUSINESS	ACTIVITIES (BUSA)		OUTPU	Г (OUTP)		OUTCOM	E (OUTC)		TECHNOLO	GY (TECH)
YEAR	Mean	Standard Deviation	YEAR	Mean	Standard Deviation	YEAR	Mean	Standard Deviation	YEAR	Mean	Standard Deviation	YEAR	Mean	Standard Deviation
2015	0.3717	0.2710	2015	0.5043	0.1399	2015	0.6525	0.1663	2015	0.8433	0.1556	2015	0.0620	0.1354
2016	0.4800	0.2175	2016	0.5229	0.1549	2016	0.6850	0.1311	2016	0.7700	0.1415	2016	0.1080	0.1851
2017	0.5700	0.2418	2017	0.5329	0.1462	2017	0.7025	0.1048	2017	0.7700	0.1314	2017	0.1220	0.1988
2018	0.6267	0.2629	2018	0.5500	0.1497	2018	0.7150	0.0872	2018	0.7733	0.1330	2018	0.1620	0.2304
2019	0.6900	0.2997	2019	0.5743	0.1519	2019	0.7275	0.0719	2019	0.8822	0.1238	2019	0.2000	0.2429

Descriptive statistics year-wise as reflected in Table 1 above shows that the overall lowest mean is reported in year 2015 and the overall highest mean is reported in year 2019 which reflects that the disclosures of the components of the Integrated Business Model - Technology are all increased over the 5-year period in a steady incremental manner.

Table 2. Frequency of disclosures of the Integrated Business Model – Technology from 2015 to 2019

YEAR	INP - % of Disclosure	BUSA - % of Disclosure	OUTP - % of Disclosure	OUTC - % of Disclosure	TECH - % of Disclosure
2015	0.14	0.19	0.19	0.21	0.09
2016	0.18	0.19	0.20	0.19	0.17
2017	0.21	0.20	0.20	0.19	0.19
2018	0.23	0.20	0.21	0.19	0.25
2019	0.25	0.21	0.21	0.22	0.31



# Frequency of Disclosures for the Integrated Business Model





The frequency of disclosures for the Integrated Business Model shows an increasing trend from year 2015 to 2019 as per Table 2 and Figure 2 above. However, Outcome (OUTC), Output (OUTP) and Business Activities (BUSA) reflects high disclosure on average across the 5 years as companies are likely to disclose more of their Output, Outcome and Business Activities within the Integrated Reports and Annual Reports to the shareholders and stakeholders as these 3 main activities would increase the corporate reputation of the organisation and in turn create more business opportunities and income.

Variables	Percentage of disclosure increase from 2015-2019
INP	85.65%
BUSA	13.88%
OUTP	11.49%
OUTC	4.60%
TECH	222.58%

Table 3. Percentage of disclosure increase for the Independent Variables from 2015 to 2019



Variables	Highest frequency of disclosure (Year)	Lowest frequency of disclosure (Year)
INP	2019	2015
BUSA	2019	2015
OUTP	2019	2015
OUTC	2019	2015
ТЕСН	2019	2015

Table 4. Frequency of disclosures of the Independent Variables from 2015 to 2019

The results of the study indicated that there is an increase of disclosures of the Integrated Business Model - Technology variables from 2015 to 2019 reflects an increasing trend as per Table 3 above. Therefore, the results of Hypotheses 1 show a significant increase in the disclosure extent of the Integrated Business Model - Technology across Malaysian PLCs between 2015 and 2019.

As per Table 4, the average highest frequency of disclosures for the independent variables are in year 2019 and the average highest frequency of disclosures are in 2015. Thus, the results of Hypotheses 1 show a significant increase in the disclosure extent of the Integrated Business Model - Technology across Malaysian PLCs between 2015 and 2019.

The results below depicted as per Table 5, Table 6, Figure 3, Table 7 and Table 8 addresses Research Question 2, Research Objective 2 and Hypotheses 2 of the study.

	WOME	N BOARD OF DIRECTORS (WBOD)	INDEPENDEN	NT BOARD OF DIRI	ECTORS (INDBOD)	INTEGRATED I	REPORTING 8 CONTENT ELEMENTS (IR8CE
YEAR	Mean	Standard Deviation	Mean	Standard Deviation	Confidence Level (95%)	Mean	Standard Deviation
2015	0.2525	0.126854924	0.226666667	0.295419578	0.058617654	0.734	0.145796316
2016	0.2725	0.128584956	0.246666667	0.286705032	0.056888499	0.721	0.143755544
2017	0.3025	0.131977003	0.313333333	0.298969423	0.05932202	0.77	0.132192086
2018	0.35	0.143239927	0.3366666667	0.301492732	0.059822699	0.811	0.10814786
2019	0.3525	0.1403234	0.34	0.299569463	0.059441081	0.869	0.121185224

Table 5. Descriptive Statistics – Moderator Variables from 2015 to 2019

Descriptive statistics year-wise as reflected in Table 5 above shows that the overall lowest mean is reported in year 2015 and the overall highest mean is reported in year 2019 which reflects that the disclosures of the components of the Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements are all increased over the 5-year period in a steady incremental manner.



Table 6. Frequency of disclosures of the Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements) from 2015 to 2019

YEAR	WBOD - % of Disclosure	INDBOD - % of Disclosure	IR8CE - % of Disclosure
2015	0.17	0.15	0.19
2016	0.18	0.17	0.18
2017	0.20	0.21	0.20
2018	0.23	0.23	0.21
2019	0.23	0.23	0.22



Figure 3. Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements) component-wise trend analysis of disclosures from 2015 to 2019

The frequency of disclosures for the Women Board of Directors (WBOD), Independent Board of Directors (INDBOD) and Integrated Reporting 8 Content Elements (IR8CE) shows an increasing trend from year 2015 to 2019 as per Table 6 and Figure 3 above. However, WBOD, INDBOD and IR8CE reflects high disclosure on average across 2018 and 2019 years as companies are likely to disclose more of their awareness of the importance of employing more Women Board of Directors and Independent Board of Directors together with disclosing the 8 content elements within the Integrated Reports and Annual Reports to the shareholders and stakeholders as these 3 main activities would increase the corporate reputation of the organisation and in turn create more business opportunities and income in line with the launch of the MCCG 2017 that supports the initiatives of employing 30% Woman Board of Directors, 50% Independent Board of Directors and the publication of the full Integrated Reports through the 8 contents elements.



Table 7. Percentage of disclosure increase for the Moderator Variables from 2015 to 2019

Variables	Percentage of disclosure increase from 2015-2019
WBOD	39.60%
INDBOD	50%
IR8CE	18.39%

Table 8. Frequency of disclosures of the Moderator Variables from 2015 to 2019

Variables	Highest frequency of disclosure (Year)	Lowest frequency of disclosure (Year)		
WBOD	2019	2015		
INDBOD	2019	2015		
IR8CE	2019	2015		

The results of the study indicated that there is an increase of disclosures of the moderator variables variables from 2015 to 2019 reflects an increasing trend as per Table 7 above. Therefore, the results of Hypotheses 2 show a significant increase in the disclosure extent of the Women Board of Directors, Independent Board of Directors and the Integrated Reporting 8 Content Elements across Malaysian PLCs between 2015 and 2019.

As per Table 8, the average highest frequency of disclosures for the independent variables are in year 2019 and the average highest frequency of disclosures are in 2015. Thus, the results of Hypotheses 2 show a significant increase in the disclosure extent of the Women Board of Directors, Independent Board of Directors and the Integrated Reporting 8 Content Elements across Malaysian PLCs between 2015 and 2019.

The results below depicted as per Table 9, Figure 4, and Table 10 addresses Research Question 3, Research Objective 3 and Hypotheses 3 of the study.

Table 9. 1Comparison between pre and post MCCG 2017: Integrated Business Model - Technology components

Independent Variables	Average of 2 years (PRE)	Average of 3 years (POST)		
Input (INP)	0.77	0.01		
Business Activities (BUSA)	0.96	0.02		
Output (OUTP)	0.95	0.01		
Outcome (OUTC)	1.10	0.01		
Technology (TECH)	0.57	0.04		





Figure 4. Overall trend analysis – Comparison between pre and post MCCG 2017 of the Integrated Business Model – Technology

Table 10. Paired-sample t-test – Pre and post MCCG 2017 of the Integrated Business Model - Technology

t-Test: Paired Two Sample for Means		
	Pre-MCCG 2017	Post-MCCG 2017
Mean	0.90	0.02
Variance	0.05	0.00
Observations	4.00	4.00
Pearson Correlation	-0.98	
Hypothesized Mean Difference	0.00	
df	3.00	
t Stat	7.42	
P(T<=t) one-tail	0.00	
t Critical one-tail	2.35	
P(T<=t) two-tail	0.01	
t Critical two-tail	3.18	

The disclosures of the Integrated Business Model are higher post- MCCG 2017.

The results below depicted as per Table 11, Figure 5, and Table 12 addresses Research Question 4, Research Objective 4 and Hypotheses 4 of the study.



Table 11. Comparison between pre and post MCCG 2017: Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements)

Moderator Variables	Average of 2 years (PRE)	Average of 3 years (POST)
Women Board of Directors (WBOD)	0.93	0.02
Independent Board of Directors (INDBOD)	0.92	0.03
Integrated Reporting 8 Content Elements (IR8CE)	1.02	0.01

Pre-MCCG 2017 and Post-MCCG 2017: Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements



Figure 5. Overall trend analysis – Comparison between pre and post MCCG 2017 of Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements)



The star Deline di Trans Communitation Marsura

Table 12. Paired-sample t-test – Pre and post MCCG 2017 of Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements)

t-Test: Paired Two Sample for Means		
	Pre-MCCG 2017	Post-MCCG 2017
Mean	0.97	0.02
Variance	0.00	0.00
Observations	2.00	2.00
Pearson Correlation	-1.00	
Hypothesized Mean Difference	0.00	
df	1.00	
t Stat	16.43	
P(T<=t) one-tail	0.02	
t Critical one-tail	6.31	
P(T<=t) two-tail	0.04	
t Critical two-tail	12.71	

The disclosures of the Moderator Variables of the Integrated Business Model are higher post-MCCG 2017.

#### **5.** Conclusion and Implications

Future research might examine the implementation beyond the first year of the Code's adoption, however this study only covers the first two years after MCCG 2017 was introduced, in 2018 and 2019.

On the other side, this study will be able to observe whether Malaysian PLCs are adopting MCCG 2017 early to maintain their company reputation. With the help of close cooperation, conversation, and experimentation, Integrated Reporting was developed to maximise and generate knowledge management transparency, with the ultimate goal of providing more intelligence-linked organisational values in the twenty-first century. While future research will look at the Code's efficacy over a longer period of time, this study can only look at the first two years after its introduction in 2017.

In contrast, the purpose of this research is to examine how the top 100 publicly listed firms are making use of the MCCG 2017 to maintain a favourable corporate reputation in terms of



managing diversity through the ongoing recruitment of women key executive members of the board.

This research addresses the theoretical significance of the study with respect to stakeholder and agency theories. According to the Stakeholder philosophy, a stakeholder model of a financial report prioritises the robustness of the integrated business model which contains the five core elements of that model.

Disclosing the five components of the IBM-T explicitly, as proposed by the Agency Theory, is supposed to ease tensions between the board of directors and the shareholders.

The Integrated Business Model - Technology scoring index has real-world applications since it may be used to evaluate the level of exposures for PLCs in industries outside of Malaysia.

Consequently, the research should go on past 2020 to account for the impact of the Covid-19 pandemic on the Integrated Business Model - Technology. It is important to research how Covid-19 will affect financial reports. In addition, this analysis will be able to evaluate the extent to which the top 100 publicly traded companies in Malaysia have commenced early implementation of MCCG 2017 to safeguard corporate integrity in light of gender diversity, board independence, and efficient stakeholder communication in spite of the global pandemic.

### Acknowledgement

This research is supported by the Bridging-Incentive Grant from Universiti Sains Malaysia, Penang, Malaysia. Grant no: 304.PMGT.6316561.

## References

Adhariani, D., & De Villiers, C. (2018). Integrated reporting: perspectives of corporate report preparers and other stakeholders. *Sustainability Accounting, Management and Policy Journal*. https://doi.org/10.1108/SAMPJ-02-2018-0043

Azmi, I. A. G., & Barrett, M. A. (2013, May). Women on Boards and Company Financial Performance: A Study of Malaysian SMEs. In Proceedings of 3rd Global Accounting, Finance and Economics Conference, Melbourne, Australia.

Boesso, G., & Kumar, K. (2007). Drivers of corporate voluntary disclosure: a framework and empirical evidence from Italy and the United States. *Accounting, Auditing & Accountability Journal*, *20*(2), 269-296. https://doi.org/10.1108/09513570710741028

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review*, *38*(1), 33-53. https://doi.org/10.1111/1540-6288.00034

Christopher & Lee Ong, (2017). The Malaysian Code on Corporate Governance 2017, Rajah & Tann Asia, Client Update: Malaysia.



Day, R., & Woodward, T. (2009). CSR reporting and the UK financial services sector. *Journal of Applied Accounting Research, 10*(3), 159-175. https://doi.org/10.1108/09675420911006398

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100. https://doi.org/10.2308/accr.00000005

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, *46*(4), 1325-1359. https://doi.org/10.1111/j.1540-6261.1991.tb04620.x

Hassan, R., Marimuthu, M., & Kaur Johl, S. (2016). Women on Boards and Market Performance: An Exploratory Study on the Listed Companies. *International Business Management 10*(2), 84-91.

Hoque, M. E. (2017). Why should company adopt integrated reporting? *International Journal of Economics and Financial Issues*, 7(1), 241-248.

International Integrated Reporting Council (2013), The International Integrated Reporting <IR> Framework, www.theiirc.org

International Integrated Reporting Council (2021), The International Integrated Reporting <IR> Framework, www.theiirc.org

Jensen, M. C., & Meckling, W. H. (1976), Theory of the firm: Managerial behaviour, agency costs and ownership structure, *Journal of Financial Economics*, *3*(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

Kılıç, M., & Kuzey, C. (2018). Assessing current company reports according to the IIRC integrated reporting framework. *Meditari Accountancy Research*. https://doi.org/10.1108/MEDAR-04-2017-0138

Lok, Y. H., & Phua, L. K. (2021). Integrated Reporting and Firm Performance in Malaysia: Moderating Effects of Board Gender Diversity and Family Firms, *Estudios de Economia Aplicada*, *39*(4), ISSN 1133-3197. https://doi.org/10.25115/eea.v39i4.4588

Lückerath-Rovers, M. (2013). Women on boards and firm performance. *Journal of Management & Governance, 17*(2), 491-509. https://doi.org/10.1007/s10997-011-9186-1

Oyong, O-AJ., Aguolu, O., Bahakonfe, UU. & Ohanya, E. (2022). Effect of Integrated Reporting on Financial Performance of Quoted Finance Companies in Nigeria. *Natural Volatiles & Essential Oils*, 9(2), 1-13.

PricewaterhouseCoopers (2015). Inspiring Trust Through Insight, Integrated Reporting in Malaysia: An analysis of the reporting by Bursa Malaysia's Top 50 companies, www.pwc.com/my/ir



Securities Commission Malaysia (2017). Malaysian Code of Corporate Governance 2017, www.sc.com.my

Securities Commission Malaysia (2021). Malaysian Code of Corporate Governance 2017, www.sc.com.my

Zahid, M., & Ghazali, Z. (2015). Corporate sustainability practices among Malaysian REITs and property listed companies. *World Journal of Science, Technology and Sustainable Development, 12*(2), 100-118. https://doi.org/10.1108/WJSTSD-02-2015-0008

### Copyright

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).