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Integrated Business Model – Technology (IBM-T) practices: Bursa Malaysia Sector-Based Trends

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Abstract

Purpose – This study investigates the impact of the five main determinants of strengthening the Integrated Business Model – Technology (IBM-T) practices of the top 100 Malaysian Public Listed Companies (PLCs) through the Integrated Business Model – Technology components, moderated by the presence of the Women Board of Directors, Independent Board of Directors, and the Integrated Reporting 8 Content Elements study across the top 100 Malaysian PLCs.

Design/methodology/approach – The methodology employed includes the purposive sampling method followed by descriptive statistics, content analysis, frequency of disclosures trend analysis and the One-Way ANOVA analysis derived from the Malaysian Code of Corporate Governance 2012 (MCCG 2012) and the Malaysian Code of Corporate Governance 2017 (MCCG 2017) together with previous studies of the analysis of the annual reports and integrated reports in order to explore the reporting of the Integrated Business Model - Technology, Women Board of Directors, Independent Board of Directors and the Integrated Reporting 8-Content Elements.

Originality/value – This study is a systematic review of recent research developments in the Integrated Reporting, Business Model, MCCG 2012 and MCCG 2017. The Integrated Business Model - Technology, Women Board of Directors, Independent Board of Directors, and the Integrated Reporting 8-Content Elements scoring indices designed which could also be applied to other PLCs other than the Malaysian PLCs.

Keywords: Malaysian code of corporate governance, integrated reporting, business model, technology, women board of directors, independent board of directors and the integrated reporting 8-content elements

1. Introduction

The International Integrated Reporting Council (IIRC) was established in 2010. (Cheng et al., 2014). The International Integrated Reporting Council (IIRC) is a group of people from all over the world who agrees that "communication about value creation should be the next stage in the evolution of corporate reporting." This group includes regulators, investors, businesses, standard setters, accountants, and the Non-Governmental Organisations (NGOs) (IIRC, 2013). The IIRC's stated goal is to "allow Integrated Reporting to be adopted into mainstream business practise in the public and commercial sectors" (http://www.theiirc.org/the-iirc/). The Integrated Reporting (<IR>) Framework was released by the IIRC in late 2013. (Cheng et al., 2014). Companies can use the Framework to demonstrate a clear connection between reported non-financial information and financial information, allowing for an appraisal of the company's continued future performance, as stated by Cheng et al., (2014). It is meant to be implemented by businesses through the creation of a new report (an integrated report) that includes both financial and non-financial information (Cheng et al., 2014). The Integrated Reporting Framework provides a comprehensive understanding of Integrated Reporting (<IR>), the <IR> process, and the relevant elements that may be included in the <IR> presentation. The International Integrated Reporting Council (2013) states that the following eight components are necessary for a complete integrated report; organizational overview and external environment; governance; business model; risk and opportunities; strategy and resource allocation; performance; outlook; and basis of preparation and presentation (Oyong, Aguolu, Bahakonfe & Ohanya, 2022).

2. Problem Statement

As Integrated Reporting (<IR>) is gaining traction in many countries, its adoption in Malaysia is still in its infancy. Knowledge of <IR>is still relatively low in Malaysia, according to a survey conducted jointly by the Malaysian Institute of Accountants (MIA) and the Association of Chartered Certified Accountants (ACCA) towards a wide range of stakeholders in the corporate reporting value-chain, including both preparers and users of corporate reports~~.~~ in which of the 330 people polled, 51.0% claim to know nothing about <IR> while just 13.0% claim to be experts (Malaysian Institute of Accountants and the Association of Chartered Certified Accountants, 2016).

Positively, <IR> has stimulated participants' attention, and there is a strong desire to learn more about this new corporate reporting regime: 96.9% of corporate report preparers and 92.9% of non-reporters who have no or limited understanding of <IR> indicate they want to learn more about it in the future. In a survey of those who help put out annual reports for corporations, 27.7% of those having at least a passing familiarity with <IR> said their organisation would consider implementing <IR>, while just 12.0% said they would not. Only around a third of respondents (31%) indicated that <IR> has been considered at the board level, which is a crucial first step in helping top executives see the value in adopting <IR> and realising its potential advantages. Currently, there are not many people who are actively advocating for change and would prefer status-quo. Even while most auditors and consumers of financial statements have at least a passing familiarity with <IR>, only 32.5 percent consider themselves to be <IR> proponents at this time. (Malaysian Institute of Accountants and the Association of Chartered Certified Accountants, 2016).

Since more relevant information is made public thanks to integrated reporting disclosures, the asymmetric information issue that results from the agency problem is mitigated. As much as it provides beneficial information disclosures to investors, integrated reporting can lessen the time and money investors spend on seeking for and acquiring this information. Since "bad news" is the default assumption when it comes to non-disclosure information, it might have a negative effect on the value and reputation of the company. Due to the importance of maintaining a positive public image, businesses are increasingly forthcoming with information disclosures to their stakeholders (Uyar, 2011). Previous studies have shown a favourable correlation between integrated reporting disclosures and company success (Cosma, Soana & Venturelli, 2018; Lee & Yeo, 2016). Although prior studies demonstrated that integrated reporting disclosures did not significantly affect business performance (Adegboyegun, Alade, Ben-Caleb, Ademola, Eluyela & Oladipo, 2020). They theorised that this may be because investors place greater value on financial metrics than other types of data (Lok & Phua, 2021).

3. Research Objectives

1. To examine the levels of disclosure of the IBM-T across the 11 sectors of Bursa Malaysia.

2. To examine the levels of disclosure of the Principle A – MCCG 2017: 30% Women Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across the 11 sectors of Bursa Malaysia.

3. To examine the disclosure extent of the IBM-T and MCCG 2017 determinants on whether there is significance across the top 3 years post MCCG 2017 (Year 2017, 2018 and 2019).

4. To examine the disclosure extent of the IBM-T and MCCG 2017 determinants on whether there is significance across the top 3 Bursa Malaysia sectors (out of the 11 sectors).

4. Research Questions

1. What are the levels of disclosure of the IBM-T across the 11 sectors of Bursa Malaysia?

2. What are the levels of disclosure of the Principle A – MCCG 2017: 30% Women Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across the 11 sectors of Bursa Malaysia?

3. Does the disclosure extent of the IBM-T and MCCG 2017 determinants reflects significance across the top 3 years post MCCG 2017 (Year 2017, 2018 and 2019)?

4. Does the disclosure extent of the IBM-T and MCCG 2017 determinants reflects significance across the top 3 Bursa Malaysia sectors (out of the 11 sectors)?

5. Literature Review

The International Integrated Reporting Council (IIRC) developed the integrated reporting framework to standardise and improve the reporting processes of corporations worldwide. Value may be created in the short, medium, and long-term by examining the company's performance, strategy, governance, and prospects in the context of its external environment, all of which are communicated clearly and simply in an integrated report. The goal of integrated reporting is to combine the two mainstays of corporate reporting—financial and sustainability—into a single, forward-looking document. By combining financial and non-financial data into a single report, integrated reporting provides a more complete picture of an organization's performance (Hoque, 2017, Qureshi et al., 2020). Previous forms of corporate reporting, such as sustainability reporting, had limitations, such as a focus on the past rather than the present, and the inability to demonstrate causality between, say, a company's financial report and its main strategy and sustainability issues (Lok & Phua, 2021; Milne & Gray, 2013).

As years progresses on, the business landscape becomes more intricate. Production facilities and straightforward distribution networks have long since vanished. Companies in the modern day are digital, multinational, collaborative, and intricate. In addition to the rapidly shifting business environment fueled by technological advances, smaller and more agile competitors, and environmental factors like climate change, the success of today's companies are ascertained by their interactions with, and effect on, a rapidly increasing number of stakeholders who expect more from them. Now, more than ever, it's crucial for potential financiers to fully grasp a business's concept. Businesses must be able to provide concrete evidence of their value creation processes, adaptability to change, and the reliability and longevity of their operations. PricewaterhouseCoopers (PwC) discovered that very few company models that are prospering in 2015 would still be extant in the same form in 2020 in their 2013 research titled Business Models - Back to Basics. In 2013, authorities instituted a reporting obligation for businesses regarding their operational models. While debating how to respond, businesses ran across an unusual obstacle: unlike other crucial reporting aspects like risk or strategy, no single employee "owns" the description of the business model (PricewaterhouseCoopers, 2016).

Unquestionably, the descriptions of businesses, their important resources and interactions, and their places in their ecosystems are becoming more all-encompassing in business models. However, in doing so, they provide difficulties for the current disclosures about strategy, risk, and critical success factors, all of which tend to be rooted in the conventional approach to financial reporting. In response, businesses will have to detail how their business models are adapting to new market conditions, (ii) their strategies back up these pillars and the value creation they enable, (iii) their management takes into account opportunities and threats across their business model, (iv) money made and value created and redistributed, (v) their key performance indicators reflect these pillars, and (vi) they track the impact on key tangible and intangible resources and key relationships (PricewaterhouseCoopers, 2016).

The phrase "corporate governance" refers to the system put in place to ensure that a company's operations are led and managed in a way that benefits all its stakeholders and ultimately increases long-term shareholders wealth. Corporate governance is the system of checks and balances put in place to help a business reach its objectives while minimising the risk of negative interactions between its many parts. Companies and their management of investor money are best served by adhering to the tenets of corporate governance, which

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include ethical behaviour, accountability, transparency, and sustainability. Long-term value is more likely to be created by businesses that adhere to these principles than by those that don't (Securities Commission Malaysia, 2017).

Companies in Malaysia have benefited from the reforms made possible by the introduction of the Malaysian Code on Corporate Governance (MCCG) in 2000. The MCCG goes above the minimal requirements set forth by legislation, rules, or those required by Bursa Malaysia to represent worldwide concepts and globally recognised practises of corporate governance. The MCCG makes it possible to respond to calls for improved corporate governance in a way that is both productive and adaptable. It acknowledges that statutory control is important in certain areas of corporate governance, while self-regulation, reinforced by market regulation, may be challenging for the PLCs to adopt and adapt. There were comprehensive reviews of the MCCG in 2007 and 2012 to make sure it was up-to-date and in line with internationally accepted norms and standards. The 2017 edition of the MCCG, which replaces the 2015 version, offers a fresh approach to fostering deeper roots in corporate governance way of life (Securities Commission Malaysia, 2017).

This study's moderator variables are the three new initiatives introduced within MCCG 2017 that are distinct from the previous MCCG published in 2012: the 50% Independent Board of Directors, the 30% Women Board of Directors, and the publication of an Integrated Report which supersedes the traditional Annual Report and Sustainability Report.

In accordance with the previous MCCG 2012, the board must have a majority of independent directors if the chairperson of the board is not an independent director. However, the new MCCG 2017 guideline mandates that independent directors make up at least half of the board, for major corporations meeting the criteria of being included in the Bursa Malaysia Top 100 index or having a market valuation of RM 2 billion or more at the beginning of the firms' fiscal year.

According to the previous MCCG (2012), the commentary of the Code suggested that businesses institutes a policy on diversity in the boardroom with regards to gender equality. This is in contrast to the new MCCG 2017, which mandates that boards make public the company's strategies, objectives, and initiatives for increasing the representation of women on corporate boards. According to MCCG 2017, it is recommended that large corporations appoint at least 30% women to their board of directors.

Newly recommended in MCCG 2017 under Principle C: Integrity in Corporate Reporting and Meaningful Relationship with Stakeholders, integrated reporting is a method in which major firms are urged to report using an internationally recognised framework. In 2012, the MCCG did not suggest this course of action.

6. Theoretical Framework

Theory regarding the role of the Stakeholder

According to Jensen and Meckling (1976), an agency relationship is established when the principal (the business owner) grants the agent (the company's management) the authority to act on the principal's behalf in making business decisions.One major source of the agency problem is the lack of shared information between owners and managers. According to the agency theory, a board's independence and its capacity to carry out its monitoring function are strengthened when at least half of the directors serve independently. This is in keeping with the recommendations made by the MCCG 2017 and is consistent with the best practices of modern boards.

Theories regarding the role of Agencies

To have an efficient board and prosperous business, the agency link is essential (Jensen and Meckling, 1976). Boards that are more representative of the communities they serve are better able to exercise impartial supervision of executive and leadership teams (Hassan, Marimuthu and Johl, 2016; Carter et al, 2003). According to the Agency idea, female board members are more equipped than their male counterparts to execute the watchdog, surveillance, and consulting roles that are important to the role (Azmi and Barrett, 2013). The company's position in the market may improve if more women were represented on the board of directors (Luckerath-Rovers, 2013).

7. Conceptual Framework

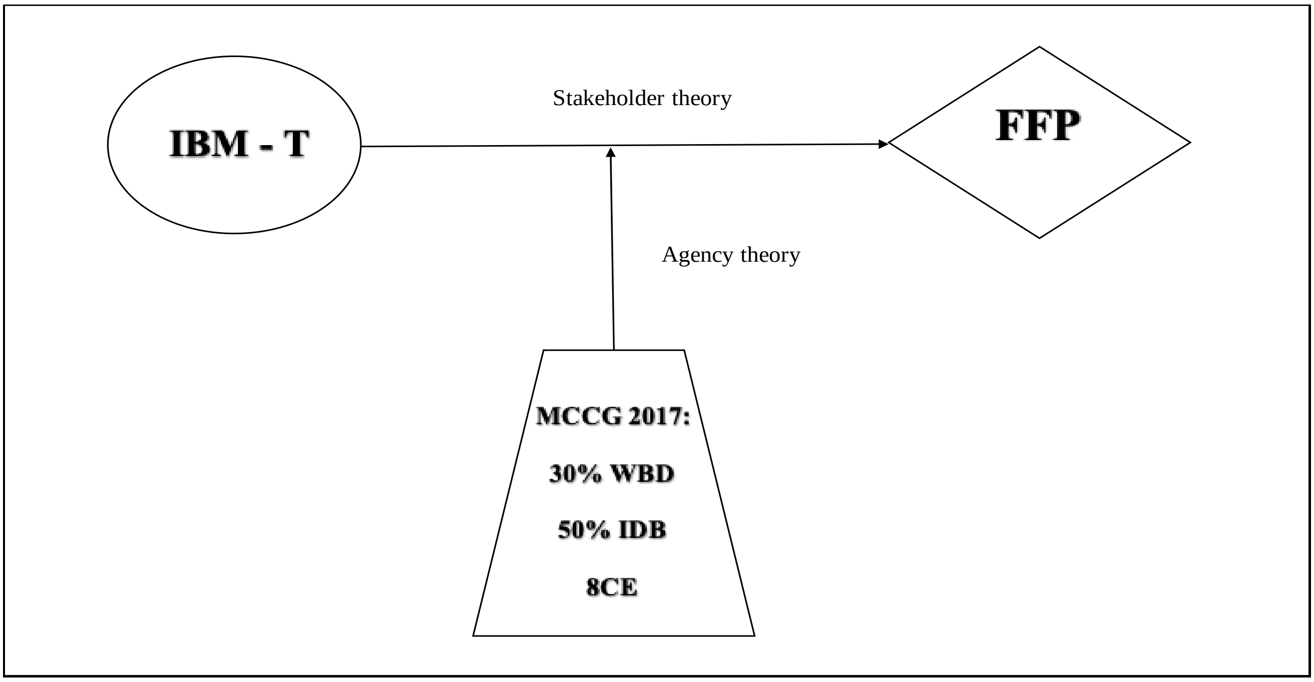

Figure 1. Conceptual Framework

The Malaysian Securities Commission Malaysia released new corporate governance principles on April 26, 2017; they are titled Malaysian Corporate Governance 2017. (MCCG 2017). The revised MCCG 2017 offers Malaysian companies’ new guidance on how to improve their corporate governance.

Following the CARE (Comprehend, Apply, and Report) methodology, MCCG 2017 has shifted from the "comply or explain" approach of MCCG 2012 to the "apply or explain an alternative" approach. As a result of the revisions made to the Code, practitioners will have more discretion in how they implement its recommendations (Christopher & Lee Ong, 2017).

8. Hypotheses of the Study

Hypothesis 1: There is a significant increase in the disclosure extent of the IBM-T across the 11 sectors of Bursa Malaysia.

Hypothesis 2: There is a significant increase of the disclosure extent of the Principle A – MCCG 2017: 30% Women Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements across the 11 sectors of Bursa Malaysia.

Hypothesis 3: There is significant difference across the top 3 years post MCCG 2017 (Year 2017, 2018 and 2019) on the disclosure of the IBM-T and the moderator variables of Principle A – MCCG 2017: 30% Women Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements.

Hypothesis 4: There is significant difference across the top 3 Bursa Malaysia sectors (out of the 11 sectors) on the disclosure of the IBM-T and the moderator variables of Principle A – MCCG 2017: 30% Women Board of Directors, Principle A – MCCG 2017: 50% Independent Board of Directors and Principle C – MCCG 2017: Integrated Reporting 8 Content Elements.

9. Scope and Methodology of the Study

This article evaluates a subset of the 900 Malaysian PLCs listed on Bursa Malaysia that provide Annual or Integrated Reports.

The data collected throughout 2015 and 2019. This study recommended choosing the top 100 PLCs from the Bursa Malaysia stock exchange as a sample. In this analysis, descriptive statistics were utilised. The frequency of disclosures was examined utilising quantitative content analysis on annual or integrated reports. The One-Way ANOVA analysis was used to analyse the samples of the top 3 years post MCCG 2017 (2017, 2018 and 2019) and analyse the samples of the top 3 Bursa Malaysia sectors out of the 11 sectors for the Integrated Business Model - Technology and its moderator variables (women on the board of directors, independence of the board of directors, and the presence of the Integrated Reporting 8-Content Elements).

Years 2015 and 2016 were chosen since the MCCG 2012 remained active and had gained saturation point by that time. Companies are in the process of transitioning from MCCG 2012 to MCCG 2017, hence 2017 was selected since it is likely that the MCCG 2017 amendments have not yet been applied in 2017 but will be implemented in year 2018 and 2019. The years 2018 and 2019 were chosen to analyse the feasibility of the new Code, which has been adopted progressively, and to determine the impact of the MCCG 2017 modifications. Thus, the collected data over the duration of these five years will allow the investigator to distinguish between the affects prior to and after the implementation of MCCG 2017.

Content analysis is by far the most prevalent and widely used approach for research and financial disclosures (Zahid and Ghazali, 2015; Boesso and Kumar, 2007). In content analysis, both quantitative and qualitative measures can be employed. Research indicates that quantitative content analysis is the most reliable technique (Zahid and Ghazali, 2015; Day and Woodward, 2009). In this study, quantitative content analysis was employed.

10. Significance of Study

To retain their trustworthiness in the minds of their stakeholders and the general public, publicly listed companies must collect and aggregate considerable data for investor and internal resource management, which is why the proposed research is so important. To ensure the growth of corporate governance across PLCs, the MCCG 2017 must be implemented gradually commencing in 2018. This research provides a breakthrough sophisticated Integrated Business Model -Technology to prevent any implementation challenges on the route to achieving company performance.

11. Results and Discussion

In this section, results are discussed based on the hypotheses of the study that addresses 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 depicted as per Table 1, Figure 2, Table 2 and Table 3 addresses Research Question 1, Research Objective 1 and Hypotheses 1 of the study.

Table 1. Descriptive Statistics – Integrated Business Model - Technology across the 11 sectors of Bursa Malaysia

BURSA MALAYSIA SECTORS	INPUT (INPT)		BUSINESS ACTIVITIES (BUSAC		OUTPUT (OUTPT)		OUTCOME (OUTCO		TECHNOLOGY (TECHN	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Construction	0.55	0.33	0.62	0.19	0.75	0.00	0.84	0.15	0.26	0.23
Consumer products and services	0.50	0.26	0.53	0.14	0.69	0.11	0.80	0.13	0.05	0.12
Energy	0.49	0.24	0.48	0.14	0.69	0.14	0.78	0.18	0.05	0.16
Health Care	0.56	0.27	0.61	0.13	0.75	0.00	0.85	0.10	0.23	0.26
Industrial Products and Services	0.59	0.30	0.55	0.18	0.69	0.16	0.78	0.20	0.13	0.20
Plantation	0.59	0.24	0.56	0.13	0.68	0.11	0.84	0.13	0.06	0.10
Property	0.57	0.15	0.43	0.00	0.75	0.00	0.82	0.13	0.00	0.00
Technology	0.56	0.23	0.54	0.14	0.68	0.14	0.83	0.08	0.11	0.15
Telecommunication and Media	0.63	0.36	0.51	0.17	0.65	0.16	0.79	0.15	0.45	0.29
Transportation and Logistics	0.61	0.30	0.52	0.14	0.69	0.13	0.83	0.13	0.17	0.15
Utilities	0.51	0.35	0.52	0.15	0.74	0.05	0.79	0.14	0.23	0.24

Descriptive statistics by sectors is reflected in Table 1 above. The lowest mean is reported for the Energy industry and the highest mean is reported for the Industrial Products and Services for INP within the Integrated Business Model. In terms of BUSA, the lowest mean is reported for the Property industry and the highest mean is reported for the Construction industry. In terms of OUTP, three industries reported the highest mean at the same value which are the Construction, Healthcare and Property industry and the lowest mean reported is from the Telecommunication and Media industry. Next, OUTC reported the highest mean from the Healthcare industry and the lowest mean reported from the Energy industry. The Construction industry reported the highest mean for TECH and the lowest mean reported was from the Property industry.

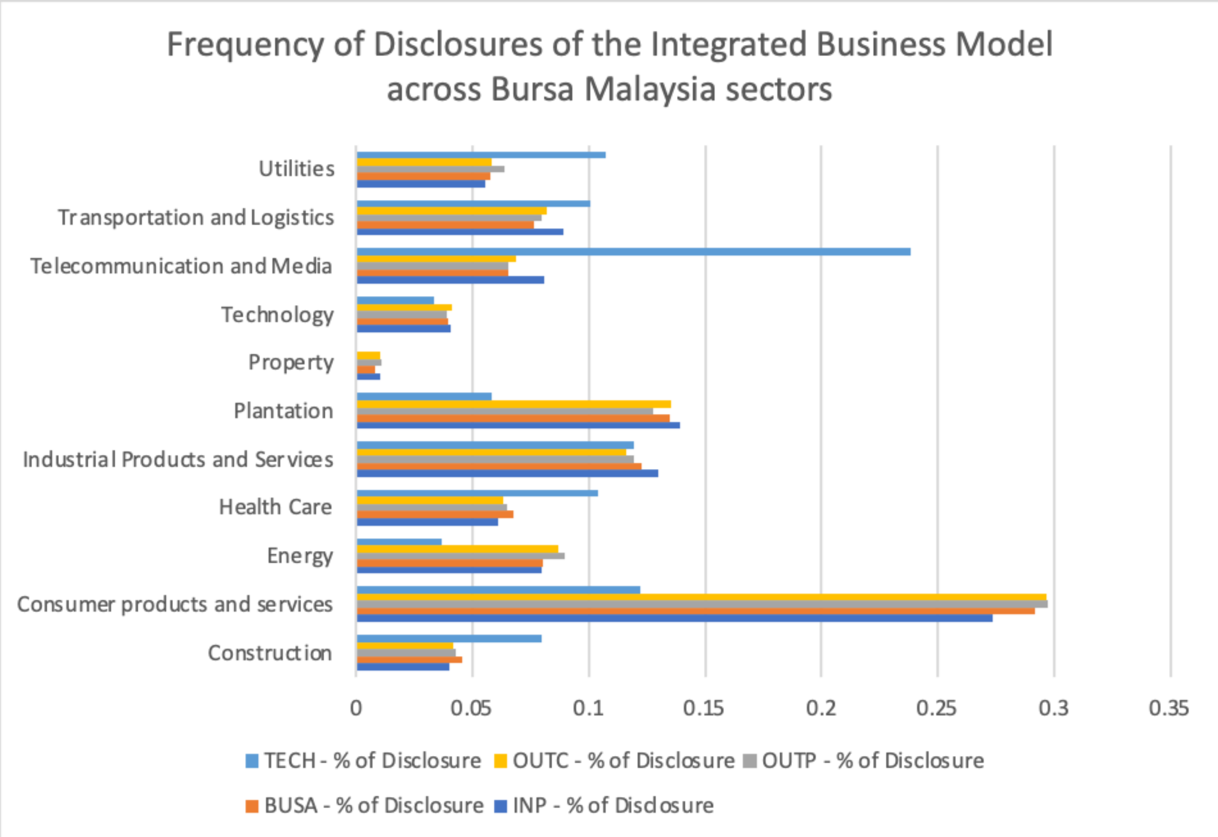

Figure 2. Integrated Business Model – Technology trend analysis of disclosures across 11 sectors of Bursa Malaysia

Table 2. Average disclosure for the Independent Variables across the 11 sectors of Bursa Malaysia

Variables	**Average disclosure across the 11 sectors**
Input	0.5583
Business Activities	0.5337
Output	0.7065
Outcome	0.8135
Technology	0.1578

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The results of the study indicated that the highest average disclosures of the Integrated Business Model - Technology variables are the Outcome and the lowest is the Technology across the 11 sectors reflecting an increase of disclosures as per Figure 2 and Table 2 above.

Table 3. Frequency of disclosures of the Independent Variables across the 11 sectors of Bursa Malaysia

Variables	**Highest frequency of disclosure (Industry)**	**Lowest frequency of disclosure (Industry)**
INP	Telecommunication and Media	Energy
BUSA	Construction	Property
OUTP	Construction, Healthcare and Property	Telecommunication and Media
OUTC	Healthcare	Energy
TECH	Telecommunication and Media	Property

The average highest frequency of disclosures for the independent variables are the Telecommunication and Media sector and the average lowest frequency of disclosures are the Property and Energy sector.

The results below depicted as per Table 4, Figure 3, Table 5, and Table 6 addresses Research Question 2, Research Objective 2 and Hypotheses 2 of the study.

Table 4. Descriptive Statistics of the Moderator Variables – across the 11 sectors of Bursa Malaysia

	WOMEN BOARD OF DIRECTORS (WBD)		INDEPENDENT BOARD OF DIRECTORS (IDB)		INTEGRATED REPORTING 8 CONTENT ELEMENTS (8CE	
BURSA MALAYSIA SECTORS	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Construction	0.24	0.13	0.35	0.31	0.78	0.13
Consumer products and services	0.33	0.13	0.29	0.30	0.78	0.12
Energy	0.33	0.12	0.31	0.30	0.75	0.18
Health Care	0.35	0.13	0.34	0.31	0.79	0.10
Industrial Products and Services	0.27	0.16	0.28	0.28	0.76	0.21
Plantation	0.21	0.10	0.28	0.30	0.78	0.12
Property	0.38	0.15	0.13	0.18	0.70	0.19
Technology	0.28	0.08	0.33	0.34	0.77	0.12
Telecommunication and Media	0.36	0.17	0.30	0.30	0.81	0.14
Transportation and Logistics	0.36	0.10	0.34	0.31	0.77	0.13
Utilities	0.32	0.17	0.16	0.26	0.88	0.09

Descriptive statistics by sectors is reflected in Table 4 above. WBD reported the highest mean from the Telecommunication and Media industry and the lowest mean from the Plantation industry. IDB reported the highest mean from the Healthcare industry and the lowest mean from the Property industry. Finally, 8CE reported the highest mean from the Utilities industry and the lowest from the Energy industry.

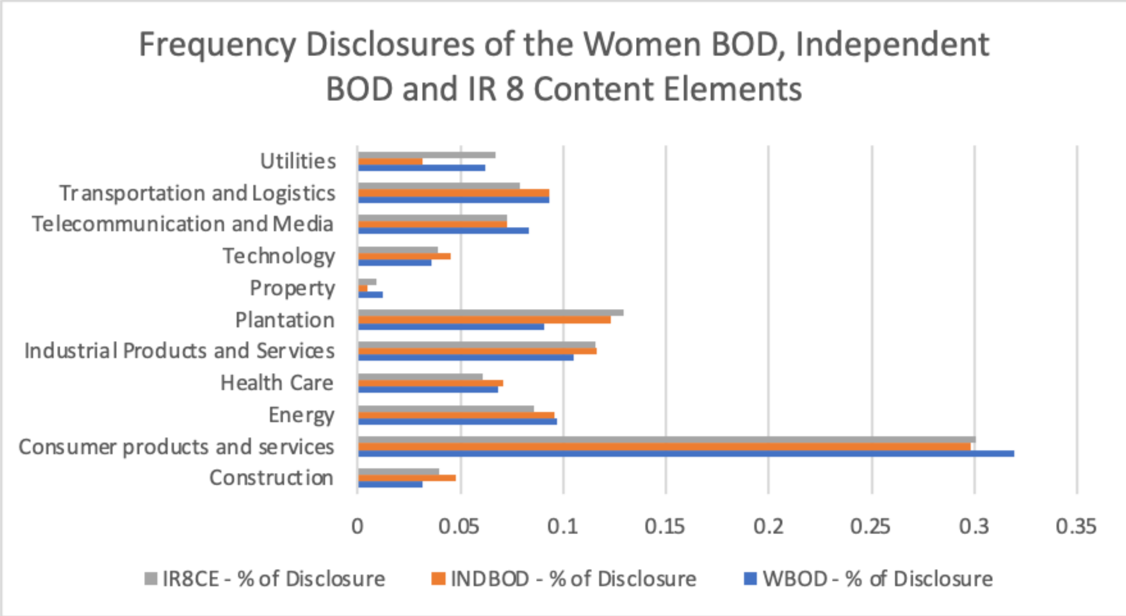

Figure 3. Moderator Variables (Women Board of Director, Independent Board of Director, and the Integrated Reporting 8 Content Elements) component-wise trend analysis of across 11 sectors of Bursa Malaysia

The frequency of disclosures for the WBD, IDB and 8CE by sectors are shown per Figure 43 and Figure 44. The highest frequency of disclosures for the WBD, IDB and 8CE is from the Consumer Products and Services industry and the lowest is from the Property industry. This reflects that the Consumer Products and Services industry are concerned with their corporate reputation through the high disclosures of the Integrated Business Model which in turn creates more business opportunities and income.

Table 5. Average disclosure for the Moderator Variables across the 11 sectors of Bursa Malaysia

Variables	**Average disclosure across the 11 sectors**
WBD	0.3109
IDB	0.2841
8CE	0.7778

The results of the study indicated that the highest average disclosures of the moderator variables is the 8CE and the lowest is the IDB across the 11 sectors reflecting an increase of disclosures as per Table 5 above.

Table 6. Frequency of disclosures of the Moderator Variables across the 11 sectors of Bursa Malaysia

Variables	Highest frequency of disclosure (Industry)	Lowest frequency of disclosure (Industry)
WBD	Telecommunication and Media	Plantation
IDB	Construction	Utilities
8CE	Utilities	Energy

The average highest frequency of disclosures for the WBD is from the Telecommunication and Media sector and the average lowest frequency of disclosures is from the Plantation sector. The average highest frequency of disclosures for the IDB is from the Construction sector and the average lowest frequency of disclosures is from the Utilities sector which is in contrast with 8CE with the average highest frequency of disclosures for the IDB is from the Utilities sector and the average lowest frequency of disclosures is from the Energy sector.

The results below depicted as per Table 7, Figure 4, Table 8, Table 9, Figure 5 and Table 10 addresses Research Question 3, Research Objective 3 and Hypotheses 3 of the study.

Table 7. Top 3 years comparison – Integrated Business Model - Technology

	YEAR		
Independent Variables	**2019**	**2018**	**2017**
Input	69.00	62.67	57.00
Business Activities	57.43	55.00	53.29
Output	72.75	71.50	70.25
Outcome	88.22	77.33	77.00
Technology	20.00	16.20	12.20

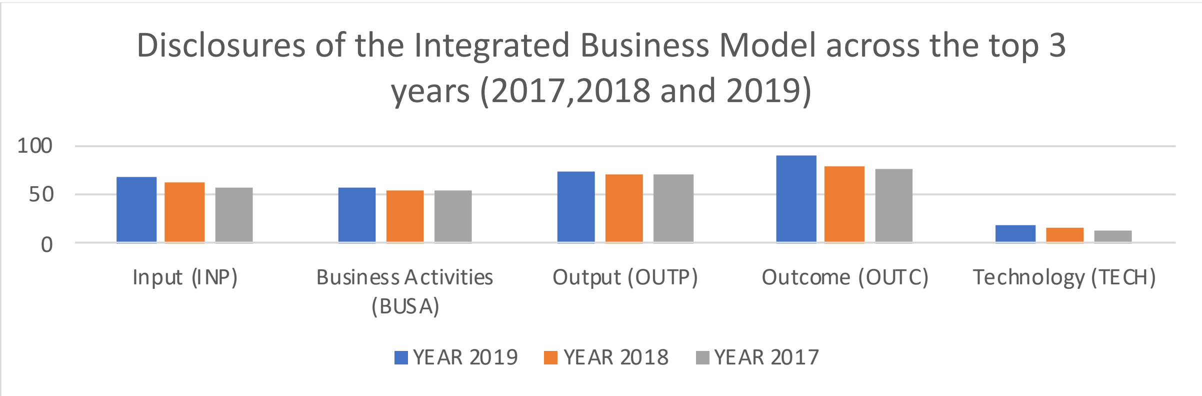

Figure 4. Top 3 years analysis – Integrated Business Model - Technology

Table 8. One-Way ANOVA analysis – Integrated Business Model - Technology

Groups	*Count*	*Sum*	*Average*	*Variance*		
2019	5.00	307.40	61.48	658.93		
2018	5.00	282.70	56.54	580.85		
2017	5.00	269.74	53.95	637.45		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	146.46	2.00	73.23	0.12	0.89	3.89
Within Groups	7508.90	12.00	625.74			
Total	7655.36	14.00				

Ho: The population means of the top three years are equal across the Integrated Business Model disclosures.

Ha: The population means of the top three years are not equal across the Integrated Business Model disclosures.

The p-value of 0.890564 is more than 0.05 which is not significant, in which we will fail to reject Ho and conclude that the population means of the top three years are equal across the Integrated Business Model disclosures.

Conclusion: This signifies that there is no MCCG 2017 influence across year 2017,2018 and 2019 on the market performance in the presence of the Integrated Business Model – Technology disclosures effect.

Table 9. Top 3 years comparison – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

	YEAR		
Independent Variables	**2019**	**2018**	**2017**
Women Board of Directors (WBD)	35.25	35.00	30.25
Independent Board of Directors (IDB)	34.00	33.67	31.33
Integrated Reporting 8 Content Elements (8CE)	86.90	81.10	77.00

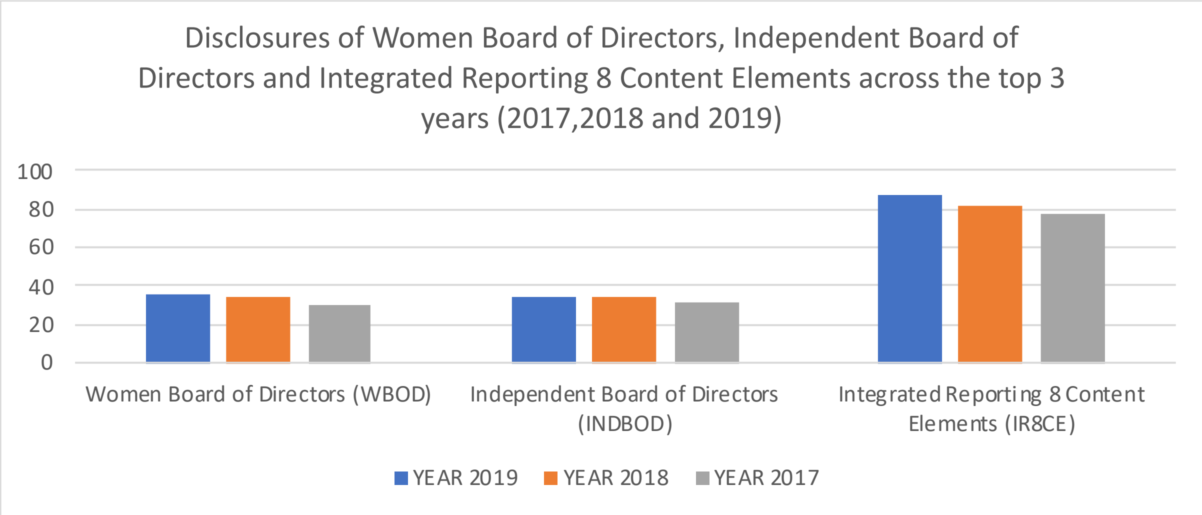

Figure 5. Top 3 years analysis – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

Table 10. One-Way ANOVA analysis – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

Groups	*Count*	*Sum*	*Average*	*Variance*		
2019	3.00	156.15	52.05	911.28		
2018	3.00	149.77	49.92	729.48		
2017	3.00	138.58	46.19	712.03		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	52.71	2.00	26.36	0.03	0.97	5.14
Within Groups	4705.59	6.00	784.27			
Total	4758.31	8.00				

Ho: The population means of the top three years are equal across the disclosures of Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements.

Ha: The population means of the top three years are not equal across the disclosures of Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements.

The p-value of 0.967133 is more than 0.05 which is not significant, in which we will fail to reject Ho and conclude that the population means of the top three years are equal across the disclosures of Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements.

Conclusion: This signifies that there is no MCCG 2017 influence across year 2017,2018 and 2019 on the market performance in the presence of the 30% Women Board of Directors disclosures effect, the 50% Independent Board of Directors disclosures effect, and the full implementation of the <IR> 8 Content Elements disclosures effect.

The results below depicted as per Table 11, Figure 6, Table 12, Table 13, Figure 7 and Table 14 addresses Research Question 4, Research Objective 4 and Hypotheses 4 of the study.

Table 11. Top 3 Bursa Malaysia sector comparison – Integrated Business Model - Technology

	INDMY		
Independent Variables	**INDMY 10 - Transportation and Logistics**	**INDMY 6 - Plantation**	**INDMY 11 - Utilities**
Input	24.33	38.17	15.17
Business Activities	20.71	36.57	15.71
Output	27.75	44.50	22.25
Outcome	33.11	54.67	23.56
Technology	6.60	3.80	7.00

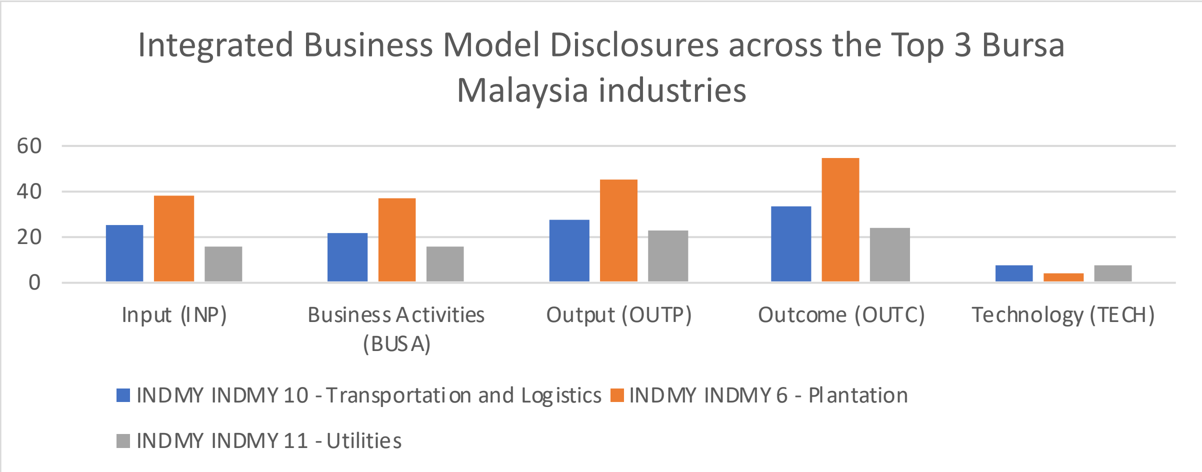

Figure 6. Top 3 Bursa Malaysia sector analysis – Integrated Business Model - Technology

Table 12. One-Way ANOVA analysis – Integrated Business Model - Technology

Groups	*Count*	*Sum*	*Average*	*Variance*
INDMY 10 - Transportation and Logistics	5.00	112.51	22.50	99.88
INDMY 6 - Plantation	5.00	177.70	35.54	365.38
INDMY 11 - Utilities	5.00	83.69	16.74	43.80

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	928.04	2.00	464.02	2.73	0.11	3.89
Within Groups	2036.23	12.00	169.69			
Total	2964.27	14.00				

Ho: The population means of the three top Bursa Malaysia industries are equal across the Integrated Business Model disclosures.

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Ha: The population means of the three top Bursa Malaysia industries are not equal across the Integrated Business Model disclosures.

The p-value of 0.105063 is more than 0.05 which is not significant, in which we will fail to reject Ho and conclude that the population means of the three top Bursa Malaysia industries are equal across the Integrated Business Model disclosures.

Conclusion: This signifies that there is no sectoral influence across the top 3 sectors on the market performance in the presence of the Integrated Business Model – Technology disclosures effect.

Table 13. Top 3 Bursa Malaysia industries comparison – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

	INDMY		
Independent Variables	**INDMY 10 - Transportation and Logistics**	**INDMY 6 - Plantation**	**INDMY 11 - Utilities**
Women Board of Directors (WBD)	14.25	13.88	9.50
Independent Board of Directors (IDB)	13.67	18.00	4.67
Integrated Reporting 8 Content Elements (8CE)	30.80	50.50	26.30

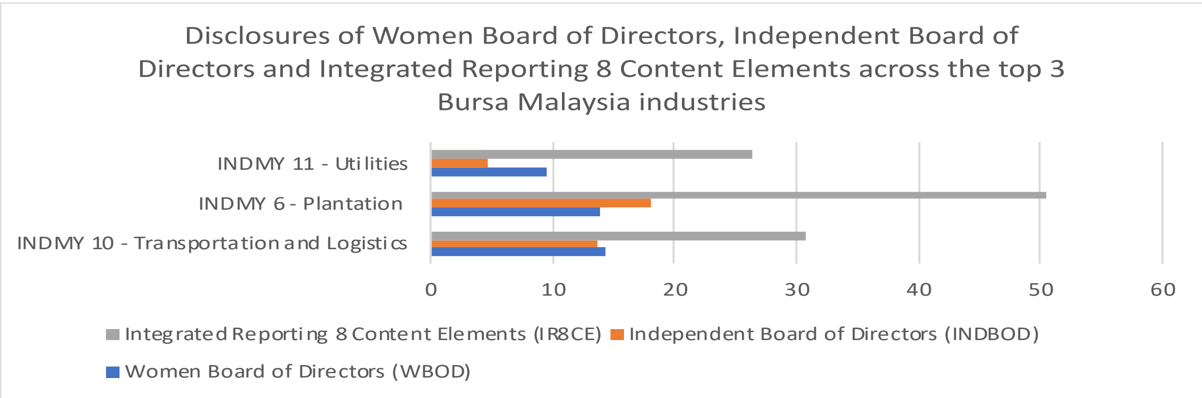

Figure 7. Top 3 Bursa Malaysia industry analysis – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

Table 14. One-Way ANOVA analysis – Women Board of Directors, Independent Board of Directors, and Integrated Reporting 8 Content Elements

Groups	*Count*	*Sum*	*Average*	*Variance*		
INDMY 10 - Transportation and Logistics	3.00	58.72	19.57	94.63		
INDMY 6 - Plantation	3.00	82.38	27.46	402.44		
INDMY 11 - Utilities	3.00	40.47	13.49	128.93		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	294.34	2.00	147.17	0.71	0.53	5.14
Within Groups	1252.02	6.00	208.67			
Total	1546.36	8.00				

Ho: The population means of the three top Bursa Malaysia industries are equal across the disclosures of Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements.

Ha: The population means of the three top Bursa Malaysia industries are not equal across the disclosures of Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements.

The p-value of 0.530761 is more than 0.05 which is not significant, in which we will fail to reject Ho and conclude that the population means of the three top Bursa Malaysia industries are equal across the disclosures of Women Board of Directors, Independent Board of Directors and Integrated Reporting 8 Content Elements.

Conclusion: This signifies that there is no sectoral influence across the top 3 sectors on the market performance in the presence of the 30% Women Board of Directors disclosures effect, the 50% Independent Board of Directors disclosures effect, and the full implementation of the <IR> 8 Content Elements disclosures effect.

12. Conclusion

This study only focuses at the first two years (2018 and 2019) after MCCG 2017 was presented, therefore further research may look at application beyond the first year of the Code's adoption.

Meanwhile, this research will be able to see if Malaysian PLCs are implementing MCCG 2017 early in order to protect their brand name. Integrated Reporting was created with the support of close interaction, dialogue, and innovation to optimize and create organizational learning openness, with the eventual objective of offering more intelligence-linked values of the organisation in the 21st century. This research can only examine the first two years after the Code's implementation in 2017, but future studies will examine its effectiveness over a longer time frame.

In comparison, this study's goal is to look at how the 100 largest publicly traded companies are using the MCCG 2017 to improve their diversity management and company image through the appointment of more women to key executive positions on the board of directors.

Relevance to stakeholder and agency theories, explored here, is discussed. A stakeholder model of financial reporting adheres to the Stakeholder tenet that emphasises the importance of a strong integrated business model and includes its five essential components.

The Agency Theory proposes that the board of directors and the shareholders can better communicate if they are both made aware of the five parts of the Integrated Business Model – Technology.

It is possible to utilise the Integrated Business Model - Technology scoring index to assess the risk profile of PLCs operating in sectors other than Malaysia.

13. Recommendations for Future Research

Therefore, studies should continue beyond 2019 to take into consideration the effect of the Covid-19 pandemic on the Integrated Business Model – Technology.

Assessing the impact of Covid-19 on the financial reporting process is crucial. The research will also be able to determine how far ahead of schedule the top 100 listed on the main board firms in Malaysia are in implementing MCCG 2017 to protect organizational transparency in light of female representation, independent directors, and effective stakeholder engagement despite the worldwide Covid-19 outbreak.

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