International Journal of Law, Humanities & Social Science ©
Volume 3, Issue 6 (October 2019), P.P. 85-114, ISSN: 2521-0793

THE INFLUENCE OF CORPORATE GOVERNANCE ATTRIBUTES OVER THE INTELLECTUAL CAPITAL DISCLOSURE OF MALAYSIAN PUBLIC LISTED COMPANIES PRE AND POST OF MCCG 2017 IMPLEMENTATION

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Abstract: *In this knowledge-based economy, the intellectual capital (IC) plays a significant role in the companies' value and bring a competitive advantage for the organization. The Securities Commission Malaysia released the new Malaysian Code on Corporate Governance (MCCG) to replace the MCCG 2012 in 2017. This has to lead to investigate more on the requirements of MCCG such as the diversity of the board of directors, independence of directors, remuneration of directors and the effectiveness of audit committee that will influence the IC disclosure after the effective date of MCCG 2017. This study contributes to the practice in the corporate world to further investigate whether the public listed are following the new MCCG requirements, the academic field from the perspective of methodology and the theoretical contribution on the agency theory and resource dependence theory. From the relevant empirical studies is supported that the board independence, gender diversity, director remuneration and the effectiveness of the audit committee have an impact on the intellectual capital disclosure in the organization. We also look into the voluntary disclosure of intellectual capital from the previous relevant research. The data collection of the study is randomly selected 30 listed companies from the population of FTSE Bursa Malaysia Top 100 Index for the year of 2016 to 2018. The financial year selection is to determine the intellectual capital disclosure for pre and post of implementation of MCCG 2017. We have selected several control variables such as firm size, firm leverage, the profitability of firm and type of audit firm that audit the organization. We have conducted the descriptive analysis, content analysis, one-way analysis of variance (ANOVA) and Bivariate Pearson Correlation to analyze our data collection. The descriptive analysis is to find out the average of overall intellectual capital disclosure in three years while content analysis is used to analyze the detailed aspects of each intellectual capital disclosure. The one way ANOVA analysis is to determine the significant difference of the intellectual capital disclosure from the years of 2016 to 2018 and the Bivariate Pearson Correlation is to analyze the relationship of the corporate governance attributes over the intellectual capital disclosure.*

Keywords: Intellectual Capital Disclosure, Audit Committee, Board of Independence, Gender Diversity
Research Area: Corporate Governance
Paper Type: Research Paper

1. INTRODUCTION

1.1 Background

In Malaysia, under the Ninth Malaysia Plan, the development of human capital such as empowerment of the human mentality and intellectual capacity (IC) of the nations is one of the focus areas. Malaysia has embarked on a mission to develop a knowledge-based society by launching a Knowledge-Based Economy Master Plan in 2002 (Husin, Ahmad, & Sapingi, 2011; Economic Planning Unit, 2001).

In this knowledge-based economy, the IC plays the significant role for the companies' value and bring the success of business entities as the function of leveraging (Saarce Elsye

Hatane, Tertiadjajadi, & Josuatarigan, 2017; Keenan & Aggestam, 2001). So recently, IC is gradually replacing the traditional physical assets as the significant factor or determinant of corporate future performance and achievement (Yau, Chun, & Balaraman, 2009).

In 2017, The Securities Commission Malaysia released the new Malaysian Code on Corporate Governance (MCCG) to replace the MCCG 2012. The MCCG 2017 is a set of best practices to strengthen corporate culture emphasized accountability and transparency. This had been motivated to investigate more on the requirements of MCCG such as the diversity of the board of directors, independence of directors and the effectiveness of Audit Committee that will influence the IC disclosure after the effective date of MCCG 2017.

1.2 Problem Statement

In this era full of the competent and knowledgeable era, the corporate development is moving forward to rely on their employees to be more innovative, equipped with new technology skills and knowledge rather than just the machine and equipment (CIMA, 2003). It is important for an organization to have capable and competent people to contribute to company development. These refer to intellectual capital (IC) and shows that IC acts as the base of competitive advantage for the organization success. IC is the knowledge within an organization which is able to create value when it is utilized in line with the mission, vision, and goals of the organization (APICC, 2017). The information is essential for the use of investors, creditors, managers and government bodies. For example, the investors need the more the information disclosed to evaluate the performance of the company and increase their investment.

In Malaysia, the MCCG 2017 is a recent practice that the public listed company must follow. It will have a turning point for the company to adopt the requirements from MCCG 2012 to the latest MCCG 2017. Currently, we found that the intellectual capital disclosure level is low in Malaysia. As we know IC disclosure is the competitive advantage of the firm, however, lack of IC information has influenced the investors not to invest as they are unable to determine the value of the company. They are also unable to compare with other companies which have disclosed information on their IC related aspects.

1.3 Research Objective

- To examine the extent of intellectual capital disclosure (ICD) in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation.
- To examine the nature of intellectual capital disclosure (ICD in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation.
- To examine the relationship between corporate governance attributes and intellectual capital disclosure (ICD).

1.4 Research Questions

- To what extent is the intellectual capital-related information disclosed in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation?
- What is the nature of the intellectual capital-related information disclosed in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation?
- Do corporate governance attributes have an influence on intellectual capital disclosure (ICD)?

1.5 Significance of Contribution

This study contributes to the practice in the corporate world to further investigate whether the public listed are following the new MCCG requirements. The results of following the code will act as a feedback for the government to look further enhance corporate governance practices in Malaysia.

1.6 Limitation of the Study

Our study was conducted by collecting secondary data by using financial statements from FTSE Bursa Malaysia Top 100 Index companies. The data was collected for the financial years of 2016 to 2018. However, there are limitations on this research which is researcher time.

1.7 Scope of the Study

The study is limited to listed companies on the FTSE Bursa Malaysia Top 100 Index. The data were collected from published annual reports in the financial years of 2016 to 2018. In the stated financial years (2016 and 2018), the corporate governance attributes like independent of the board of directors, gender diversity of the board, director remuneration, the audit committee independence, audit committee size, audit committee financial expertise, attendance to an audit committee meeting and intellectual capital disclosure were examined.

2.0 Literature Review

2.1 Introduction

After discussing the introduction of this research, we shall further examine the relevant literature to this research. Among the areas, which the literature was examined is the definition of IC, classification of IC, the importance of IC disclosure, empirical studies of IC disclosure, corporate governance in Malaysia, the underpinning theories used in this study, and corporate governance variable examined in this research.

2.2 Definition of Intellectual Capital

Intellectual capital is composed of the words of "inter" which has conveyed Latin relations, “lectio” which has expressed reading and having knowledge and “capital” which means saving and summation (AKYÜZ, 2013). According to GAAP, IC is the firms’ value which intangible assets that aren’t reflected on the balance sheet. IC defines as combined intangible assets of the market, intellectual property, human-centred and infrastructure. These combined intangible assets enable the company to function (Rađenović & Krstić, 2017; Castro, 2014; A.Brooking, 1996). Edvinsson and Malone (1997) stated that IC includes the practical experience, organizational know-how, client and supplier relationships, and professional abilities of the organization.

2.3 Classification of Intellectual Capital

The definition of IC is comprehensive and abstract. There are researchers suggest that consider the structure of IC in order to specify it and to describe it more precisely.

We found that IC has been categorized in many ways from the previous literature. This is because to measure and report IC, the researchers developed several frameworks (Abeysekera & Guthrie, 2005). Brooking (1996) who initiate to develop the ideal of IC frameworks that classifies IC into three categories and then this framework has been modified by other authors (Al-Hamadeen & Suwaidan, 2014; Abeysekera & Guthrie, 2005).

In general, the IC can be defined and grouped into three categories which include internal (structural) capital, external (relational/customer) capital and human capital (employee competence) (Evaggelia, 2015; Abeysekera & Guthrie, 2004; CIMA, 2003).

Structural capital is also known as internal capital which defines as the knowledge stays within the organization. It is essential and everything in an organization that supports employees in their work. It is the supportive infrastructure that enables human capital to function such as buildings, hardware, software, processes, patents and trademarks (Al-Hamadeen & Suwaidan, 2014; Edvinsson & Malone, 1997). It also comprises organizational routines, procedures, systems, cultures and databases (CIMA, 2003).In addition, structural capital includes things such as the organization's reputation, organization structure, information system, and proprietary databases (Al-Hamadeen & Suwaidan, 2014). Some of IC may be legally protected and owned by the firm under the separate title to become intellectual property rights. (CIMA, 2003) Thomas Stewart has defined structural capital as "the values of staffs that left to the workplace after they leave work in the evening" (Musman & Rahman, 2013; Stewart, 1997).

External capital is also known as customer capital or relational capital. It is an external relationship which covers the business relationship, interactions and loyalty of customers (Gupta & Bhasin, 2014; Stewart, 1994). The important factors that increase customer capital are customer satisfaction, repeat business, financial health and price sensitivity (Al-Hamadeen & Suwaidan, 2014; Edvinsson & Malone, 1997). As we know the most core element for the business is customers. Therefore, organizations have to well-managed on this external relation by providing the good quality of products or services to increase customer satisfaction and return of sales. Besides the customer relationship, the organization also needs to manage the relationship with the suppliers, investors or partners in the research and development in order to have good external capital. (CIMA, 2003)

The human capital that consists of knowledge, skills, talent, abilities, experience and creativity of employees. This shows the concept of the organization has no right to own the human capital. However, the organization needs to know to manage the people resources in the business process innovation and creativity (Al-Hamadeen & Suwaidan, 2014; Edvinsson & Malone, 1997). The human capital has the main objective of produce products and services in the organization. Therefore, to improve the effectiveness of human capital, managers can organize the training program, provide the motivation and job satisfaction level to them.

2.4 Importance of Intellectual Capital Disclosure

Organizational disclosure is what "was previously secret or unknown", so that "all stakeholders understand how a firm concern on the ethical, social and environmental impacts in the disclosure of IC" (Dumay, 2016). It shows that IC disclosure is a method to be used as measuring the intangible assets and describing the results of a company's knowledge based on the activities (Ismail, 2008).

Traditionally, the financial statements do not require to report on the IC of a company. So, it creates information asymmetry between the shareholders and other stakeholders. The stakeholders will find it difficult to know the exact value of the company and cause the ambiguity on the company. To reduce the issue, it is suggested that the IC is better to be disclosed for the needs of stakeholders (Maria Assunta & Giovanni, 2016).

2.5 Empirical Studies of Intellectual Capital Disclosure

Findings of IC disclosure studies are reported for countries, such as Australia (Guthrie & Petty, 2000) Canada (Bontis, 2003), Ireland (Brennan, 2001), Italy (Bozzolan & Favotto, 2003) , Malaysia (Goh & Lim, 2004), UK (Roslender & Fincham, 2004) and the US (Belkaoui, 2003). There is also a finding from Pablos (2002) explored the evidence of IC measurement in the firms of Asia, Europe and the Middle East.

Moreover, there was a Swedish insurance company, Skandia AFS is the pioneer contributor to IC development according to Roslender and Fincham (2004). The first IC report named Skandia Navigator was developed by Skandia in 1994. Therefore, other European companies decided to report on intangible resources. Besides, the research found only a few evidence on IC disclosure be the attention of management in the six companies examined. They also concluded the level of disclosure was not strong within the UK companies and their management (Amin, Saringat, Hassan, & Ismail, 2013).

Many studies have investigated the IC disclosure of several countries. Guthrie (2000) studied 20 largest Australian listed companies and concluded that IC disclosure in Australian companies is not important to Australian firms and the reporting practices are not systematic. Brennan (2001) also research on the features 11 knowledge-based Irish listed companies and concluded that the organization IC disclosure level also low in Ireland. They only have little interest in and response for enhancements in measuring and accounting for IC in Ireland.

2.6 Corporate Governance in Malaysia

Malaysia achieved strong economic growth over the decade from 1986 to 1996. As we know Malaysia experienced rapid economic growth from the 1980s until the mid-1997. However, in the year of 1997, the currency crisis in neighbouring Thailand caused the Asian financial crisis plunging the whole of Southeast Asia into recession.

The occurrence of the 1997-1998 Asian Financial Crisis was believed weak corporate governance as a major source of corporate failure (Kim, 1998), which has the impact on declining in foreign investor’s confidence in the credibility of financial reporting and influence Malaysian capital market. According to the Finance Committee on Corporate Governance (FCCG, 1999), the weak governance comes to a substantial loss of confidence by investors in the Malaysian capital market and worry about the role of directors and regulators in safeguarding their interests.

Malaysia is more advanced in its corporate regulatory environment even before the Asian financial crisis hit them in 1997-1998. In 1999, the FCCG had made two important implementations which are to establish the Malaysian Code on Corporate Governance (MCCG) and to establish the Minority Shareholders Watchdog Group (MSWG). MSWG compromises the members from the five largest institutional investors in Malaysia which are Employees Provident Fund (EPF), Lembaga Tabung Angkatan Tentera, Permodalan Nasional Berhad (PNB), Lembaga Tabung Haji and Social Security Organization (SOCSO).

The first version of MCCG was drafted in 1999 and approved in March 2000 by the Ministry of Finance in order to improve the monitoring function of the corporate governance mechanism in Malaysia. The Code organized the principles and best practices of good governance and described optimal corporate governance structures as well as internal processes (MCCG, 2007). It aimed to enhance legal and regulatory frameworks in the companies. Since then, the Securities Commission (SC) had developed MCCG 2000 and the former Code was substituted by MCCG 2007. MCCG 2007 represented the continued cooperative efforts between Government and the industries to further reinforce the board of directors and audit committees, and ensuring that the board of directors and audit committees discharge their roles and responsibilities effectively (MCCG, 2007).

Later, the MCCG 2007 is revised to MCCG 2012. The code focuses on strengthening board structure and composition recognizing the role of directors as active and responsible fiduciaries. They have a duty to be effective stewards and guardians of the company, not just in setting strategic direction and overseeing the conduct of business, but also in ensuring that the company conducts itself in compliance with laws and ethical values, and maintains an effective governance structure to ensure the appropriate management of risks and level of internal controls (MCCG, 2012).

The latest corporate development was in regard to the release of the new MCCG 2017 by SC on 26 April 2017. The new Code which is a set of best practices to strengthen corporate culture anchored on accountability and transparency represents Malaysia's continued effort in promoting good corporate governance to further enhance its capital market and ensure its sustainability. The Code which will take effect for the financial year ending 31 December 2017 essentially centres on three principles namely board leadership and effectiveness; effective audit, risk management, and internal controls; and corporate reporting and relationship with stakeholders. (MCCG, 2017)

2.7 Underpinning Theory

In this study, we found that there are two theories that can analyze the corporate governance attributes that will influence on intellectual capital disclosure. They are agency theory and resources dependence theory.

Under agency theory, it is interpreted the relationships between principal and agent. The different interest of principal and agent is the reason for conflict. It is the situation where the separation between ownership and control in companies that creates a conflict between managers' act on their economic interests and the shareholders' goals (Maria Assunta & Giovanni, 2016). In addition, the issues of corporate governance are mostly infinite, difficult and have hidden agendas in which many important and unsolved questions tend to arise from time to time. According to agency theory, a board of directors should monitor managers to ensure they behave in the interests of shareholders (Bertoni, Meoli, & Vismara, 2014). In fulfilling this role, a board of directors serves as a value-protection mechanism.

There is also empirical studies that document that the weaker the governance structures of the firms will have greater agency problems and leads to the low level of IC disclosure. However, the companies that have dominated the Board of independent directors make a better job of monitoring and management protect the best interests of the property (Maria Assunta & Giovanni, 2016). Moreover, agency theory suggests that the use of voluntary IC reporting could reduce the problem of information asymmetry and could also ease other related agency-principal conflicts (Haji & Ghazali, 2013; An & Eggleton, 2011).

Where else, resource dependence theory explains that the influence of external factors on organizational behaviour and the way of managers to reduce environmental uncertainty and dependence. In the research of Francisca Tejedo-Romero et al. (2017), they adopted resource dependence theory and found that boards perform better if members have diverse views, skills and professional experience including in terms of gender. Diversity in members' profiles including gender gives the board a range of capabilities, a pool of resources and expertise, a set of different leadership experiences, and a capacity to generate new ideas

(Quintana García, 2016). According to the EU Corporate Governance Framework (2011), there should have value-creation characteristics in the board members for instance of diverse views, skills and professional experience. Therefore, women directors are the resources of a company that can be reliable and bring an impact on information disclosure.

As a result, the agency theory is used to test whether the independent director and effective audit committee will impact on the IC disclosure. Resources dependency theory is to test whether a company with women directors on board will impact on the IC disclosure.

2.8 Independent Board of Directors

In previous studies, the percentage of independent directors is positively associated with the level of disclosure (Cerbioni & Parbonetti, 2007; García-Meca & Sánchez-Ballesta, 2010). White et al. (2007) argue that independent directors on the Board of Directors are significant to plays a role as supervisor of "watchdog". The existence of independent directors will bring more effective with regard to non-financial information disclosed in the annual financial statements.

Cheng and Courtenay (2006) studies on the relationship between the independence of the Board and the level of voluntary disclosure. The higher the percentage of independent directors in the Board of Directors are positively related to a higher level of disclosure. Moreover, their results also show that the majority of independent directors (> 50%) has a higher level of voluntary disclosure as compared to the companies that do not have the majority of independent directors in the board.

Nevertheless, there are also some researchers including Ho and Wong (2001), Haniffa and Cooke (2002) and Brammer and Pavelin (2008), found no significant relationship between the independence director with IC disclosure (Maria Assunta & Giovanni, 2016). While Francisca Tejedo-Romero et al. observes that independent directors are negative to the IC disclosure. (Tejedo-Romero, Araujo, & Emmendoerfer, 2017)

2.9 Gender Diversity Characteristics

In precise, a board of directors provides a valuable resource that renders competitive advantage to an organization (Tejedo-Romero, Rodriguesb, & Craig, 2017; Arosa, 2013). Women trust that will enhance the commercial effectiveness based on gender representation regulations (Quintana García, 2016). The company with women directors on the board can increase the competence, expertise, collective judgment, and intelligence of a board (EC, 2011). Moreover, there is a strong belief that women can improve the company performance because they are better at multi-tasking, risk management and communication compared to men (Tejedo-Romero, Rodriguesb, & Craig, 2017; Schubert, 2006). Women have a "more participative and process-oriented" communication style compared to men that can enhance their communication skills (Lucas-Pérez, 2015)

In addition, when there is better monitoring by gender-diverse boards will lead to better oversight of managers, enriched transparency, and a "richer information environment" (Lucas-Pérez, 2015). This environment is improving the level of disclosure IC information because of the women on boards will give rise to a better knowledge of the market and better identification with customers and employees. (Lucas-Pérez, 2015)

Boulouta (2013) provide support that women on boards are likely to comply with the feminine stereotype, they are more socially sensitive, have greater concerns for "soft" issues, and have "a positive influence on board responsibilities of a qualitative nature, such as strategic and corporate social responsibility (CSR) issues" (Tejedo-Romero, Rodriguesb, & Craig, 2017). Therefore, women are more sensitive when making the decision on intellectual capital performance compared to the board that only have men.

2.10 Director Remuneration

To run the company successfully, the levels of make-up remuneration should be sufficient to attract and retain the directors. The component parts of remuneration should be structured so as to link rewards to corporate and individual performance, in the case of executive directors. In the case of non-executive directors, the level of remuneration should reflect the experience and level of responsibilities undertaken by the particular non-executive concerned. Companies should establish a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual directors. Details regard to the remuneration of each director should be disclosed in the company's annual report (Nazrul Hisyam, 2014).

2.11 Audit Committee Independence

A significant monitoring role is played by the audit committee. This is to ensure the firm accountability and quality of financial reporting. Audit committee act as a liaison person between the board and external auditor in order to avoid any information asymmetry between these two parties. Therefore, it is essential to have an appropriate function of the audit committee in order to improve the effectiveness of the financial reporting and make sure financial reporting has a high quality (Azman & Kamaluddin, 2012; Chen, 2007).

The word "independence" reflects the expertise of the accounting profession. The combination of integrity and expert skills and the honest without bias are the characteristics of the independent individual while independence as objectivity emphasizes freedom from bias or prejudice. However, due to oversight role such as the audit committee, the academicians and regulators have broadly considered independence as an important feature of the committee members. (Bedard & Gendron, 2010). Furthermore, the independent audit committee enhances the function of external and internal audit, in which external and internal auditors assess financial reporting more objectively (Abbott et al., 2004).

In previous studies, the academic researchers found that the independence of the audit committee is an important concern to the quality of reporting. For example some of studies shown when audit committees that consist of fully independent directors show a consistent result of significant positive relationship between higher audit committee independence and financial reporting quality (Haji & Ghazali, 2013; Lary & Taylor, 2012; Bronson, 2009; Bedard J. C., 2004; Abbott & Parker, 2000).

There is only limited studies have been undertaken to examine the role of audit committee independence in non-financial information. Li et al. (2012) reported no significant relationship between IC disclosures and audit committee independence in the UK. In Malaysia, Akhtaruddin and Haron (2010) found a significant positive association between audit committee independence and voluntary disclosures.

2.12 Audit Committee Size

The audit committee members on the board are to determine the size of the audit committee. As we know in the revised code MCCG 2017, is advised that the board to practice have more than the mandatory size of three directors as audit committee members. The more audit committee members, the more diverse skills and knowledge are employed by the committee will enhance monitoring. A larger audit committee represents greater resources and talents to rely on in overseeing the financial reporting (Lin & Hwang, 2010). In addition, potential issues in corporate reporting disclosures are more likely to be uncovered and resolved with a higher number of audit committee members (Nor, Shafie, & Hussin, 2010)

There is a discussion on the audit committee is an expensive monitoring tool but many of the companies are willing to bear these expenses, especially those with high agency costs. (Madi, 2012) Thus, larger audit committees are willing to devote greater resources to oversee the financial accounting process. The big audit committees better protect and control financial standards than small committees could. In addition, companies with fewer members in the audit committee, on average, devote less time to oversee the hiring of auditors, questioning management, and meeting with the internal control system personnel. Therefore, there are advantages and disadvantages to having more audit committee members on the board.

2.13 Audit Committee Financial Expertise

An effective audit committee should have the characteristics of the members are finance literate. Policymakers and academics believe that financial expertise of audit committee would enhance its effectiveness in overseeing financial reporting responsibilities (Madi, 2012; Krishnan, 2009). Audit committee members typically have responsibility for oversight over the financial reporting process as well as corporate disclosures practices (PwC, 2011; Bedard & Gendron, 2010). Accordingly, audit committee members need to have the background of accounting and finance to act as effective monitors of the integrity of a company's financial reporting process and its disclosure practices (Emmerich, 2005). There is a report from PricewaterhouseCoopers (2011) stated that the lack of financial knowledge and experience will affect the firm's overall financial reporting due to they are unable to deal with the financial reporting issue and monitoring the financial reporting process. Moreover, with increasing issues related to auditing and accounting, it is further argued that the accounting expertise of audit committee members significantly influences the audit committee effectiveness (Bedard & Gendron, 2010; Lin & Hwang, 2010; Krishnan, 2009). Therefore, to be able to fulfil their responsibilities, audit committee members should have specific domain knowledge of accounting to effectively monitor the financial reporting process and disclosures.

2.14 Attendance to Audit Committee Meeting

A number of studies have focused on the association between audit committee frequency meeting and financial reporting quality. According to Beasley et al. (2000), the study investigated the relationship between the number of audit committee meetings and the likelihood of having fraud financial reports in the technology and health-care industries. The results of their study indicated a negative relationship between the number of meetings and the likelihood of fraud companies. Their study indicated that while fraud companies generally hold one meeting per year, non-fraud companies meet two or three times each year. However, the number of audit committee meetings in both groups of companies is still less than the four meetings per year recommended by the Blue Robin Committee. In a similar study, Abbott et al. (2000) indicated that firms with audit committees that meet at least twice per year are less likely to be sanctioned by the SEC for financial reporting problems. Finally, Abbott et al. (2000) found a significant and negative association between the audit committees, which meet at least four times per year, and the occurrence of financial reporting restatement.

3.0 RESEARCH AND METHODOLOGY

3.1 Introduction

This chapter is divided into a few sections which aimed to discuss the research and methodology of the study. Firstly, there will be a discussion on the theoretical framework and the hypotheses development based on the theoretical perspective and empirical studies. Next, the discussion will be further on the procedures in conducting and developing research which are variables measurement, data collection, an overview of content analysis, research models and data analysis method used in this study.

3.2 Hypothesis Development

Most of the researchers found that the higher independence board of directors will mitigate the agency problem as it is the effective mechanism control of the board. There is arguing that the board's main function is decision making and controlling and the external directors are to support the shareholders' interest and monitor the board behaviour (Alfraih, 2018). The results from the empirical studies report are mixed. From the Cerbioni and Parbonetti (2007) research found that the sample of European companies have a high level of IC disclosure when there are more external directors on the board. Li et al. (2008) also have similar and positive results in the sample of UK listed companies. In Kenya, Abeysekera (2010) found positive results from the sample of listed companies. Moreover, the result in Malaysia also shows a positive relationship between external directors and the IC disclosure (Haji & Ghazali, 2013). In contrast, there are also negative results show on the relationship between independence board of directors and the IC disclosure. This result is observed by Rodrigues et al. (2016) in Portugal and Abdul Rashid et al. (2012) in Malaysia. There is also a document that shows no relationship between external directors and IC disclosure in Mexico by Hidalgo et al. (2011).

Based on the MCCG 2017, we know that a good corporate governance practice, the organization must have independent non-executive directors at least half of the board. Moreover, shareholders usually believe that independent non-executive directors are the balance mechanism for agency problems. The non-executive directors are more responsible and always protect the interest of shareholders and stakeholders. Since they are more independent and objective in the board, the shareholders believe they can foster the quality and quantity of the IC disclosure. Therefore, it is expected that a higher proportion of independence of the board of directors is positively associated with the intellectual capital disclosure. As a result, the study hypothesizes that:

> H1: The proportion of independent directors on board is positively associated with the level of intellectual capital disclosure.

Board diversity is an important element for the sustainability of company development and to accomplish its long term goal. In this study, we focus on the board with diversifying in gender. As we know that the good control of the board will increase transparency and promote dynamic board communication to investors because the gender diversity on board which enhance the disclosure quality (Zakaria Ali Aribi, 2018). Ben-Amar, et al.'s (2017) observes the sample of Canadian companies and found that the IC disclosure increased due to the percentage of women directors increased. Fernandez-Feijoo et al. (2014) also found a similar result that boards with more women disclose more CSR information refer to the study of practice in 22 countries. Lucas-Pérez et al. (2015) also concluded that women have a greater influence on the firm on the task of disclosure information and strategic control. Prior studies were focused on whether gender diversity of directors will influences decisions and level of information disclosure.

Refer to MCCG 2017, the board of directors should have at least 30% women on board especially for a large corporation. MCCG also encourages the participation of women not only at board level but even in senior management. Since the women on board will enhance the diversity of the board and their capabilities will increase the disclosure of IC. The shareholders are more likely that concern on the quality and reliability of the information disclosed by the board. Women directors are more precise, sensitive and detailed oriented compared to the men directors so that it might influence the information disclosed. The board should utilize the women as the resource of an organization that aligns to resources dependence theory. Therefore, the following hypothesis is examined:

> H2: The higher the proportion of women directors on the board, the higher the level of intellectual capital disclosure.

As refer to the revised MCCG 2017 requires that the listed companies adopt the transparent remuneration policy and detailed disclosure on a named basis of the remuneration paid to directors which includes all fees, salary, bonus, benefits-in-kind and other emoluments. However, there is a lack of information available due to limited research on this area. Oviantari (2011) investigated the relationship between Indonesian directors' remuneration and company performance. A sample of 100 listed companies throughout the period 2008-2009 has been found that there has been a positive relationship between directors and commissioners' remuneration and company performance. Based on the discussion above, the following hypothesis is developed:

> H3: The director remuneration is positively associated with the level of intellectual capital disclosure.

Audit committee plays a key role in the corporate governance structure. It is a selected number of members of the board of directors whose responsibilities include helping internal and external auditors remain independent of management. It is reasonable and essential to have expertise, independent, diligent, having multiple directorships of audit committee members to ensure the performance is effective. The effectiveness of the audit committee will enhance transparency and provide independent judgments to oversee the financial reporting process. There is significant result shows that the audit committee's role is extended to release the non-financial information included the IC disclosure (Haji A. A., 2015; Li J. M., 2012).

The result from empirical studies on the relationship between the audit committee and the disclosure of IC are mixed. The effectiveness of the audit committee can be observed according to several characteristics which are independence of audit committee, size of the audit committee, the finance expertise of the audit committee members and the attendance of the audit committee. In the revised code MCCG 2017 requires the organization to strengthen the independence of the audit committee. An effective audit committee should consist of solely independent directors.

There is only limited studies have been undertaken to examine the role of audit committee independence in non-financial information. So, the current study examines the role of audit committee independence on IC disclosure practices following the revised Malaysian code of corporate governance in 2017.

Moreover, the effectiveness of the audit committee mostly arises from the resources which means the size of the audit committee. Most of the studies found that the recommended size for an audit committee is three to five members and preferred most of them are independent directors. (Haji A. A., 2015; Bronson, 2009) There is a number of studies investigate the size of the audit committee has a positive correlation to the disclosure of information (Haji A. A., 2015; Cornett, 2009). In the case of IC disclosures, Li et al. (2012) also documented a positive impact of audit committee size on the IC disclosures in the UK. However, other studies reported an insignificant impact on the financial reporting process (Lary & Taylor, 2012; Bedard J. C., 2004). There is a finding based on a sample of Malaysian companies, shows a strong significant association between the IC disclosure and audit committee attributes which are audit committee size, independence, financial expertise and board meeting. (Haji A. A., 2015) The audit committee function is essential to increase the quality of disclosure of information.

Besides, all the members should be financially literate and at least one must be a member of an accounting association. All the audit committee members should involve in continuous professional development to keep learning and update themselves with relevant accounting and auditing standards, practices and rules. This will enhance the effectiveness of the audit committee.

However, there is limited research on the influence of finance expertise of the audit committee on the non-financial information disclosure practices. Furthermore, the board committee meetings also show the commitment and effectiveness of the audit committee. In the Malaysian context, both Abdul Rahman and Ali (2006) and Mohamad et al. (2012), have used data before the Revised Code and found no relationship between the frequency of audit committee meetings and financial reporting quality. With respect to voluntary disclosures, Li et al. (2012) documented a significant positive association between IC disclosures and audit committee meetings in the UK.

When the audit committee is more effective, the disclosure level of the IC will be increased. Hence, the following hypothesis is developed:

H4: There is a significant relationship between the audit committee independence and the intellectual capital disclosure.

H5: There is a significant relationship between the audit committee size and the intellectual capital disclosure.

H6: There is a significant relationship between the audit committee financial expertise and the intellectual capital disclosure.

H7: There is a significant relationship between the audit committee meetings and the intellectual capital disclosure.

3.3 Theoretical Framework

3.3.1 Agency Theory

According to an economic view of risk-sharing, agency issue occurs between two parties which are principals and agents, however, each of them may have different methods to solve the problem (Bendickson, Muldoon, Liguori, & Davis, 2016; Jensen & Meckling, 1976). Agency theory is dealing with the relationship between principals and agents. From the organization perspective, this relationship refers to managers or the board of the directors that appointed and the shareholders of the company. The information asymmetry occurs due to the agent (manager) have the information advantage than the principal (shareholder) during the manager act on behalf of the shareholders. This theory also argues that the agent might exploit their position for their personal interest instead of principal interest. Due to the inability of shareholders directly monitor the managers' action at all the time, this caused the moral hazard issue and increase the agency cost.

Effective corporate governance practice can diminish agency problems. Good corporate governance is the organization fulfil the requirement in the MCCG 2017 such as independent directors and effective of the audit committee in the organization. Fama and Jensen (1983) suggest that the independence of the board act as an important role in diffusing internal agency conflicts. Moreover, the organization should provide meaningful disclosure of information that can achieve the needs of shareholders and stakeholders.

The effective of audit committees is an important tool for the decision control system and internal monitoring by the boards of directors. There are several characteristics that can justify the effectiveness of audit committees such as the independence, the size, the financial expertise and attendance to the audit committee. The shareholders will be confident towards the company that has an effective audit committee that can protect the interest of shareholders. This is because the shareholders are lack of internal information. Independent audit committee and the directors on board will enhance the disclosure of information in the organization that meet the need of shareholders. Hence, good corporate governance will enhance the transparency and disclosure of information in an organization. As a result, from the points discussed above in agency theory, the independent directors and effective audit committee will enhance the disclosure of IC.

3.3.2 Resources Dependence Theory

Resources dependence theory interprets organizations needs to dependent on their external environment and resources to monitor their behaviour. The gender diversity characteristic we discussed in this study can be used the resources dependence theory to explain the importance of the women as the directors on board. We found that women as valuable resources for the organization from the resources dependence view. This is because a study found that the legitimacy of the organization will be improved with the appointment of women directors (Dang, 2014).

The organization can depend on the women director on board due to their role is essential in terms of the business case and justice case (Seierstad, 2016). Female directors on boards will attain new abilities, which may develop business performance in an organization. On the other hand, to fight for justice and have the same representation of all individuals on the team, the organization needs to establish heterogeneity. There is also a study argue that women directors can increase the competitive advantage for the business due to women on board are differently when in decision-making processes compared to men (Hoobler, Masterson, Nkomo, & Michel, 2016).

Therefore, women directors are the resources of the organization that can influence the disclosure level of IC which have illustrated in the resource dependence theory.

Based on the discussion of the theory above, the following theoretical framework is derived.

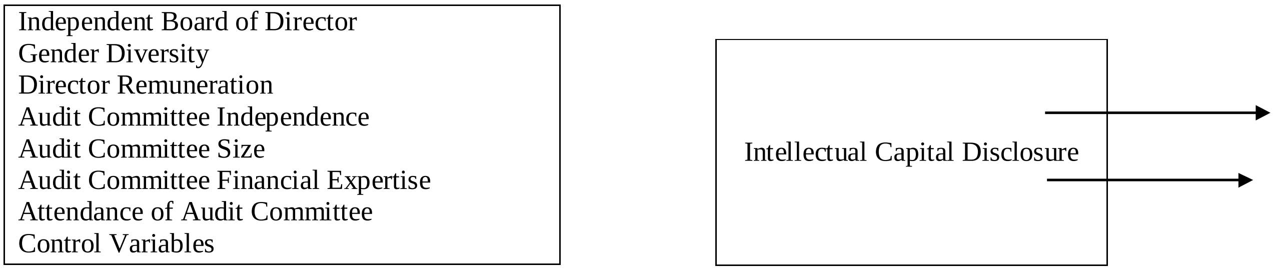

Figure 1: Theoretical framework of the study

3.4 Control Variable

Previous literature on corporate governance characteristics and level of IC disclosure have identified a number of variables that may influence the relationship between corporate governance characteristics and level of IC disclosure. We found that the following variables are controlled in this study: firm size, profitability, leverage, and type of audit firm which is whether the audit firm is big 4 or otherwise.

3.5 Sample of Study

3.5.1 Population

Population for this study are the companies listed on the FTSE Bursa Malaysia Top 100 Index. This is due to the MCCG 2017 ruling is fully applicable to them.

3.5.2 Sample Selection

The sample selected is a random selection from the population of FTSE Bursa Malaysia Top 100 Index for this study with financial year ending from 2016 to 2018. The sampling list can be referred to in Appendix 1. The financial year 2016 was selected because in 2012 onwards all the public listed companies need to disclose their corporate governance practices. The financial year 2017 and 2018 were selected as there is new revised code 2017 has been implemented. Therefore, it is interesting to observe and compare the level of the change of IC disclosure in the audit report before the MCCG 2017 implemented and the after which are 2017 and 2018.

3.6 Measurement of Dependent Variable and Measurement of Independent Variable

3.6.1 Dependent Variable

3.6.1.1 Content Analysis

“Content analysis seeks to determine the meaning of written or visual sources (like newspapers) by systematically allocating their content to pre-determined, detailed categories, and then both quantifying and interpreting the outcomes” (Payne, 2004). This technique has been widely utilized in prior disclosure studies such as environmental and social investigation pattern, evaluate and determinants of such disclosure which make this method more valid and reliable in measuring IC disclosure. This technique has also been widely used in previous IC disclosure studies (Guthrie and Petty, 2000; Bozzolan et al., 2003; White et al., 2007; Li et al., 2008; Anam & Fatima, 2012; Haji and Mohd Ghazali.,2013). Guthrie et al. (2004) mentioned that content analysis permits disclosure studies to codify the written text into several groups or categories based on selected criteria. Similarly, Guthrie and Petty (2000) stated that in the field of ICD, identification of the content of the disclosures made by firms in their annual reports has become a central research method. The content analysis became an efficient method to organize and capture different IC empirical data. There are several main requirements that should be met in order to conduct this technique. Firstly, clearly defining an operational classification of categories. Secondly, items should be clearly related to their specific category. Thirdly, the ability to quantify information. Fourth, for consistency purposes, the coder should be reliable.

Finally, in measuring any type of disclosure a scoring scheme should be identified. The majority of ICD literature used a dichotomous process where 1 is assigned if the item in the disclosure index checklist is available in the annual report and 0 otherwise. Following previous ICD researches, this research adopted the dichotomous index to measure ICD extent in the annual report

3.6.1.2 Voluntary Disclosure Index

The objective of the current study is to develop a disclosure index which is compatible with the current research context. The purpose behind using an index checklist is to measure the extent of different types of disclosure, mandatory, voluntary, or both. Since the current research aims to measure the extent of IC disclosure in the annual reports of Malaysian listed companies, the index is developed as follows:

1. This study started with the ICD index checklist's sub-categorization of prior studies, where ICD has been categorized into internal capital, external capital and human capital (Sveiby, 1997).

2. The study reviewed considerable number of prior literature on ICD index checklist, as well as give special focus to studies that have been conducted in the Malaysian context (Guthrie and Petty, 2000; Abeysekera and Guthrie, 2005; White et al., 2007; Cerbioni and Parbonetti, 2007; Li et al., 2008, Haji and Mohd Ghazali, 2013).

3.6.1.3 Scoring

The mandatory, voluntary, and total ICD items were measured by a dichotomous process which assigns a score of 1 if a company discloses an item and a score of 0 if it does not (White, Lee and Tower, 2007; Cerbioni and Parbonetti, 2007; Haji and Mohd Ghazali, 2013). Thus, the approach to scoring is a weighting scheme used for the two parts. The mandatory items that might not be relevant to every firm were scored as "not relevant" (Tsalavoutas & Dionysiou, 2014) and the mandatory voluntary IC disclosure index for each firm will be measured as follows (White et al., 2007; Cerbioni and Parbonetti, 2007; Haji and Mohd Ghazali, 2013).

3.6.2 Independent Variable

3.6.2.1 Independent of Board Directors

The independent of board directors were measured by the ratio of independent non-executive directors to the total board directors. Such measurement has also been used by prior studies in the literature in the context of developing countries (Bukair & Rahman, 2015; Ahmed Haji & Mohd Ghazali, 2013; Hidalgo et al., 2011; Akhtaruddin & Haron, 2010; Taliyang & Jusop, 2011).

3.6.2.2 Gender Diversity

The gender diversity was measured according to the MCCG 2017 requirements that the percentage of women directors is at least 30% will be scored. If there is reach the requirement, it is coded as 1 and 0 otherwise.

3.6.2.3 Director Remuneration

The director remuneration was measure where the company has disclosed the named basis of directors in the annual report according to the requirement of MCCG 2017. If there is reach the requirement, it is coded as 1 and 0 otherwise.

3.6.2.4 Audit Committee Independence

Audit committee independence is measured by the proportion of independent directors on the audit committee relative to the total number of audit committee members, as was also used by Akhtaruddin and Haron (2010) and Othman et al. (2014). If the audit committee comprises independent members only, it is coded as 1 and 0 otherwise.

3.6.2.5 Audit Committee Size

The size of the audit committee is measured by the number of directors on the audit committee. This number includes both non-executive independent directors and non-executive non-independent directors. The number of audit committee directors has been extensively considered in audit committee studies as a measure of committee size and has been used by many researchers, such as Hidalgo et al. (2011), Li et al. (2008), (2012), and Taliyang and Jusop (2011). If there is more than an average number of 3, it is coded as 1 and 0 otherwise.

3.6.2.6 Audit Committee Financial Expertise

The MCCG 2017 requires listed companies to include in their committees at least one member with accounting certification or financial expertise. Following Akhtaruddin and Haron (2010) and Othman et. al (2014), this study measures the financial expertise of the audit committee by the proportion of members with accounting or financial expertise on the audit committee. If there is 2 over 3 members with a financial background and involved in continuous professional development to keep learning and update themselves with relevant accounting and auditing fields will be coded as 1 and 0 otherwise.

3.6.2.7 Audit Committee Meetings

The meetings of the audit committee are measured by the disclosure of audit committee meetings held within the financial year of the annual report, as suggested by many researchers, such as Azman and Kamaluddin (2012), Li et al. (2012), Othman et al. (2014), and Taliyang and Jusop (2011). If there is an audit committee meeting and attendance disclosed will be coded as 1 and 0 otherwise.

3.7 Data Collection

This study is focused on the listed FTSE Bursa Malaysia Top 100 Index that requires to abide with MCCG 2017 regarding have a greater governance practice. The data collection is used secondary sources which include financial and non-financial information from the annual report that can be used in the research. Most of the researcher found that the annual report is reliable to use as the medium of analysis such as content analysis in order to provide confidence to the stakeholders. (Azman & Kamaluddin, 2012)

3.8 Data Analysis

There are several statistical techniques that can be used to analyse data and obtain the conclusion regarding the IC disclosure. We used descriptive and inferential statistics to analyze the data collection. In descriptive statistics, frequency count and percentage are used to analyze the research data, while the statistical tools of maximum, minimum, mean, standard deviation and variance are appropriate for measuring the central tendency. Correlation is used for inferential statistics. The Bivariate Pearson Correlation is used to measure the significance of linear bivariate between variables in the study. Moreover, the current study analyses the data using SPSS software (version 24.0). In order to examine the extent of IC disclosure across and within the selected years, the current study conducted one-way ANOVA in order to test the IC disclosure extent.

4.0 Findings of the Study

4.1 Descriptive Analysis

Our research has applied the disclosure Index to evaluate the disclosure practices of IC information of the 30 companies' annual report for the year 2016 until 2018. We evaluated the annual report based on the 38 items included in the Disclosure Index.

Table 1: Overall Intellectual Capital Disclosure

Intellectual Capital Disclosure By Year	Mean	Standard Deviation
2016	.620	.126
2017	.673	.121
2018	.731	.122

Σ n=90

As the above Table 1, we can summarize that the result of the overall intellectual capital disclosure is increasing from the year 2016 (62.0%) to 2018 (73.1%).

Table 2: Descriptive Result of Intellectual Capital Disclosure by Category

Intellectual Capital Disclosure	2016		2017		2018	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Internal Capital	.804	.100	.830	.126	.889	.111
External Capital	.535	.174	.575	.165	.588	.152
Human Capital	.603	.189	.694	.146	.722	.181
Overall Disclosure	.620	.126	.673	.121	.731	.122

Σ n=90

Table 2 shows the descriptive analysis of the intellectual capital disclosure by three categories which is internal capital, external capital and human capital. The results indicate that disclosing information of internal capital is the highest (80.4%, 83.0% and 88.9%) followed by external capital (53.5%, 57.5% and 58.8) and human capital (60.3%, 69.4% and 72.2%) for the respective years from 2016 to 2018.

4.2 Content Analysis

Table 3: Intellectual Capital Disclosure by Items

Intellectual Capital Disclosure		Year	Mean
Internal Capital	Other Internally generated intangible assets	2016	.03
		2017	.10
		2018	.27
	(Copyrights, Patents, Trademarks, Innovative products)	2016	.90
		2017	.87
		2018	.93
	Management philosophy	2016	.70
		2017	.83
		2018	.93
	Corporate Culture	2016	.97
		2017	.90
		2018	.97
	Management Process	2016	.97
		2017	1.00
		2018	1.00
	Information systems /communication systems)	2016	.97
		2017	.97
		2018	1.00
	Financial relations	2016	.93
		2017	.93
		2018	1.00
	Leadership	2016	1.00
		2017	1.00
		2018	1.00
	Quality	2016	.77
		2017	.87
		2018	.90
External Capital	Business collaborations	2016	.83
		2017	.93
		2018	.90
	Joint venture	2016	.57
		2017	.60
		2018	.67
	R&D	2016	.60
		2017	.73
		2018	.73
	Goodwill	2016	.77
		2017	.73
		2018	.73
	Information about separately acquired intangible assets	2016	.53
		2017	.53
		2018	.67
	Brands	2016	.67
		2017	.73
		2018	.83
	Brand development	2016	.53

		2017	.50
		2018	.70
	Customers Information	2016	.53
		2017	.57
		2018	.67
	Customer satisfaction and loyalty	2016	.57
		2017	.70
		2018	.80
	Customer care	2016	.67
		2017	.67
		2018	.83
	Company reputation	2016	.30
		2017	.43
		2018	.50
	Company Name	2016	.10
		2017	.10
		2018	.20
	Market share	2016	.73
		2017	.77
		2018	.93
	Beating the competition	2016	.73
		2017	.70
		2018	.87
	Distribution channels	2016	.43
		2017	.50
		2018	.60
	Licensing agreement	2016	.40
		2017	.40
		2018	.37
	Franchising agreements	2016	.13
		2017	.17
		2018	.10
Human Capital	Employee benefits	2016	.97
		2017	.90
		2018	.93
	Education	2016	.33
		2017	.57
		2018	.63
	Training	2016	.97
		2017	1.00
		2018	1.00
	Innovativeness of employees /teams of employees	2016	.17
		2017	.23
		2018	.37
	Vocational qualifications	2016	.20
		2017	.30
		2018	.33
	Know-how	2016	.40
		2017	.53
		2018	.53

	Professional experience	2016	.87
		2017	.93
		2018	.93
	Employee Information	2016	.60
		2017	.73
		2018	.83
	Employee numbers	2016	.57
		2017	.67
		2018	.70
	Employees retirement information	2016	.63
		2017	.63
		2018	.57
	Employee safety/health	2016	.70
		2017	.97
		2018	.97
	Employees thanked / award	2016	.83
		2017	.87
		2018	.87

Σ n=90

In further to investigate the result of each category disclosure, Table 3 above shows the results of the content analysis on the IC disclosure components. The result shows that there are variations in disclosing the IC information from the category of internal capital, external capital and human capital.

In the results, we found that organizations tend to disclose the management process, company information system, finance relation and leadership information in their firms for the category of internal capital. It refers to the organizations are willing to disclose their manager's actions towards to achieve the targets, communication system to engage with the stakeholders, investor relation and the information of the board of directors and key personnel management. This information is important for the operation organization, therefore, is disclosed by the majority of the organization. The other internally generated intangible assets are the weakest (3%, 10% and 27%) information to disclose within the aspects of internal capital for three years respectively from 2016 to 2018. A probable explanation on the least disclosure of the other internally generated disclosure may be due to the cost instead of a benefit to the organization. They might lack understanding and difficulty of measurement and disclosure of internally goodwill, trademark, copyright and the operating rights.

Moreover, in terms of external capital, the information about the business collaboration which referring to the organization cooperate or partner with the external parties are the highest (83%, 93% and 90%) disclosure for the year of 2016 to 2018. The disclosure of information will show that a particular organization has a strong partnership with external parties and being reliable to the partner. However, the information about company name that esteems held by the stakeholders is the least disclosure among the external capital components.

Furthermore, the result of disclosure human capital shows that the information training provided to employees is the highest for the respective three years. This might due to this information can show the organization is empowering and developing their workforce. With the sustenance of human capital, the organization can achieve its target. Whereas, the vocational qualification is the weakest (20%, 30% and 33%) aspect disclosed by the companies. This weakness in disclosure might be due to the companies lack detailed disclosing on the new knowledge and ability to work as a team.

4.3 ANOVA Analysis

Table 4: One way ANOVA Analysis

ANOVA					
ICD					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.183	2	.092	6.043	.003
Within Groups	1.320	87	.015		
Total	1.503	89			

This study also used one-way analysis of variance to compare the means of the intellectual capital disclosure on samples for these three years from 2016 to 2018. The result from the ANOVA test shows the intellectual capital disclosure is significant as the ($p > 0.05$) for the 3 years period which was from 2016 to 2018.

4.4 Bivariate Pearson Correlation

Table 5a: Normality of data

Dependent Variable	Intellectual Capital Disclosure
Skewness	-.012
Std. Error of Skewness	.254
Kurtosis	-1.127
Std. Error of Kurtosis	.503

Table 5b: Normality of data

Independent Variable	Gender Diversity	Independent Directors	Director Remuneration
Skewness	1.714	-.136	-.947
Std. Error of Skewness	.254	.254	.254
Kurtosis	.960	-2.027	-1.128
Std. Error of Kurtosis	.503	.503	.503

Table 5c: Normality of data

Independent Variable on Effectiveness of Audit Committee	AC Independent Director	AC Size	AC Finance Expertise	AC Attendance Meeting
Skewness	-1.526	.320	-2.194	-9.487
Std. Error of Skewness	.254	.254	.254	.254
Kurtosis	.334	-1.941	2.877	90.000
Std. Error of Kurtosis	.503	.503	.503	.503

Table 5d: Normality of data

Constant Variable	Size	Leverage	ROA	ROE	Audit Firm
Skewness	4.127	2.263	2.777	4.045	-3.534
Std. Error of Skewness	.254	.254	.254	.254	.254
Kurtosis	17.700	4.025	8.932	17.345	10.724
Std. Error of Kurtosis	.503	.503	.503	.503	.503

Before conducting the Bivariate Pearson Correlation, we have analyzed the normality of data collected from our samples.

As a general rule of thumb:
If skewness is less than -1 or greater than 1, the distribution is highly skewed.
If skewness is between -1 and -0.5 or between 0.5 and 1, the distribution is moderately skewed.
If skewness is between -0.5 and 0.5, the distribution is approximately symmetric.
So, the results of skewness and kurtosis that show between -1 and +1 which defines the data is normal.

From Table 5a, the data of intellectual capital disclosure is normal as its skewness is -0.012. Besides, the result from Table 5b shows the gender diversity data skewness is highly skewed with greater than 1 but the kurtosis is 0.96. This might due to there is only 16 annual reports data that show the company adopted at least 30% of women on the board. The independent directors and directors' remuneration variable data are normal that fall within the range of -1 and 1. The data for an independent director, finance expertise and attendance meeting of the audit committee in Table 5c are highly skewed as the skewness is greater than 1. This is due to most of the companies are adopting the practices in their companies. While the size of the audit committee is normal because of fall within the range of -1 and 1.

The constant variable is highly skewed as the data from Table 5d is depending on the respective company's asset and leverage. The different company have different size and amount of asset and liabilities that will highly affect the skewness of data.

Table 6b: Correlation between Independent Variable and Dependent Variable

Variables		AC Independen Director	AC Size	AC Finance Expertise	AC Attendance Meeting
Intellectual Capital Disclosure	Pearson Correlation	-.122	.256**	.110	.208*
	Sig. (1-tailed)	.126	.007	.150	.025
	N	90	90	90	90

**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

Table 6c: Correlation between Control Variable and Dependent Variable

Variables		Size	Leverage	ROA	ROE	Audit Firm
Intellectual Capital Disclosure	Pearson Correlation	.222*	.160	.071	.115	.198*
	Sig. (1-tailed)	.018	.066	.252	.141	.031
	N	90	90	90	90	90

**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

Table 6a shows the result of the correlation between board director characteristics and intellectual capital disclosure. We found that there is a highly significant positive relationship between independent directors and the intellectual capital disclosure. Besides, the remuneration of directors has also a high signification relation to intellectual capital disclosure. This is due to the significant value of independent directors (0.003), director remuneration (0.0001) is lesser than 0.01 shows the highly significant relationship.

Moreover, the result of the effectiveness of the audit committee on intellectual capital disclosure has shown in Table 6b. There is a highly significant correlation between audit committee size (0.007) and the intellectual capital disclosure and the positive relationship between audit committee attendance (0.025) and the intellectual capital disclosure. In Table 6c, the firm size and the type of audit firm either Big 4 or not have also a positive relationship with the intellectual capital disclosure. This is due to their significant value is lesser than 0.05.

5.0 CONCLUSION

5.1 Introduction

The purpose of this chapter is to discuss and conclude the main findings of the proceeding chapter as well as suggest some recommendations for the appropriate regulatory bodies, relevant agencies and interested parties to consider. Accordingly, this chapter is organized as follows. First, a summarization of the study is presented. This is followed by the implications of the study. Next, the limitations of the study and suggestions for future research are offered. Finally, a conclusion is made.

5.2 Summary of the Study

Research Objective	Hypothesis	Analysis	Conclusion/ Findings
1. To examine the extent of intellectual capital disclosure (ICD) in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation. 2. To examine the nature of intellectual capital disclosure (ICD in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation. 3. To examine the relationship between corporate governance attributes and intellectual capital disclosure (ICD).	The following hypotheses were tested: H1: The proportion of independent directors on board is positively associated with the level of intellectual capital disclosure. H2: The higher the proportion of women directors on the board, the higher the level of intellectual capital disclosure. H3: The director remuneration is positively associated with the level of intellectual capital disclosure. H4: There is a significant relationship between the audit committee independence and the intellectual capital disclosure. H5: There is a significant relationship between the audit committee size and the intellectual capital disclosure. H6: There is a significant relationship between the audit committee financial expertise and the intellectual capital disclosure. H7: There is a significant relationship between the audit committee meetings and the intellectual capital disclosure.	1. Descriptive Analysis 2. Content Analysis 3. One Way ANOVA Analysis 4. Bivariate Pearson Correlation	1. We can summarize that the result of the overall intellectual capital disclosure is increasing from the year 2016 (62.0%), 2017 (67.3%) and 2018 (73.1%). 2. The results indicate that disclosing information of internal capital is the highest (80.4%, 83.0% and 88.9%) followed by external capital (53.5%, 57.5% and 58.8) and human capital (60.3%, 69.4% and 72.2%) for the respective years from 2016 to 2018. 3. The correlation results show there are 3 attributes (i.e. independent directors, director remuneration and audit committee size) that are a highly significant relationship with the intellectual capital disclosure.

In conclusion, the first objective of the study is to examine the extent of intellectual capital (IC) disclosure in the annual reports of Malaysian public listed pre and post the MCCG 2017 implementation. The results of the study indicate that public listed companies in Malaysia that disclose information about their IC. The mean of the result was increasing from the year 2016 (62.0%), 2017 (67.3%) and 2018 (73.1%) for overall intellectual capital disclosure.

Besides, the second objective of this research focused on the nature of the intellectual capital aspects disclosed in the organization. We found that mainly categorized into three aspects which are internal capital, external capital and human capital. The results from the research mean by categories and years. It could be concluded that the level of disclosure varies for issues related to each component. For instance, information of internal capital is the highest (80.4%, 83.0% and 88.9%) followed by external capital (53.5%, 57.5% and 58.8) and human capital (60.3%, 69.4% and 72.2%) for the respective years from 2016 to 2018. It shows the internal capital is the highest disclosed in the sample of the public listed companies. A deeper analysis reveals that the management process, company information system, finance relation and leadership information in firms represent the most disclosed information within the category of internal capital. In the same vein, information related to business collaboration to external parties is the most frequently reported under the external capital category whereas the training program information represents the most disclosed issues within the human capital dimension.

Overall from the ANOVA analysis, the voluntary disclosure of the intellectual capital is increasing from the ANOVA analysis throughout the year from 2016 to 2018 which shows that public listed companies are increasingly disclosing their IC. It shows a significant result on the disclosure of intellectual capital in the organization annual reports.

Furthermore, we identify the impact and influence of the good corporate governance attributes on intellectual capital disclosure. The independent of directors is found highly significant relationship to the intellectual capital disclosure. It is supported with the previous study in Malaysia a positive relationship between independent directors and the IC disclosure (Haji & Ghazali, 2013). Gender diversity is found not significant which is in contradict with studies by Tejedo-Romero, Rodriguesb, & Craig in 2017 that found gender diversity is a complementary corporate governance mechanism that has a significant positive effect on levels of disclosure of IC information. This is due to there are only 8 out from 30 companies that adopt the practice of at least 30% women on board that required by MCCG 2017. The remuneration of directors has the significant relation to the intellectual capital disclosure and this can be similarly as the previous studies of Nazrul Hisyam in 2014 that found that the director remuneration is positive to the company performance.

Moreover, the audit committee size has a highly significant association with intellectual capital disclosure. This is supported by the previous studies of audit committee size is significant to the disclosure practice. (Haji A. A., 2015) The attendance to audit committee has a positive relation to the intellectual capital disclosure which consistent with the studies from Abdifatah Ahmed Haji (2015). However, the audit committee independence and finance expertise have the contrast result from Abdifatah Ahmed Haji (2015) which are no significant association with the intellectual capital disclosure. Therefore, audit committees seem to have become aware of the recent public attention towards their commitment to discharging their roles effectively, which could have resulted in an improved intellectual capital disclosure.

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