



INTELLECTUAL CAPITAL, CORPORATE  
GOVERNANCE AND FIRM VALUE: PRE-AND POST-  
MALAYSIAN FINANCIAL REPORTING STANDARDS  
ADOPTION

BY

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## ABSTRACT

Intellectual Capital is gaining prominence in a knowledge-based economy. This is because in this type of economy, firms' value creation depends more on intangible assets, including intellectual capital, rather than tangible assets. Therefore, the current research emphasizes on intellectual capital disclosure and intellectual capital performance practices, taking into consideration Malaysian Financial Reporting Standards (MFRS) adoption and Malaysian Code of Corporate Governance (MCCG) amendment in 2012. The current study has four objectives: First, it systematically studies firm characteristics as determinants of intellectual capital disclosure using the meta-analysis technique. Secondly, it investigates the trends and determinants of intellectual capital disclosure, including the regulatory changes of Malaysian listed companies. Thirdly, it examines the association between intellectual capital disclosure and intellectual capital performance with firm market capitalisation in the Malaysian context. Finally, it tests the moderating effect of corporate governance on the association between intellectual capital disclosure and intellectual capital performance with firm market capitalisation in the Malaysian listed companies. The study gathered secondary data (published papers, DataStream and annual reports data for the years 2011, 2012 and 2013). Meta-analysis technique was used to review intellectual capital disclosure determinants literature. The study developed a disclosure index to measure the extent of intellectual capital disclosure in the annual reports and another index to measure corporate governance. Then, Value Added Intellectual Coefficient was calculated to measure intellectual capital performance. The main statistical techniques, conducted in this study, are: descriptive statistics, univariate analysis (i.e. one way ANOVA) and multivariate analysis (i.e. panel data regression). Findings from the meta-analysis technique indicated that firm size, profitability and industry type are determinants of intellectual capital disclosure. Subsequently, results from the descriptive statistics revealed moderately high intellectual capital disclosure extent, although there was no significant improvement over the years 2011 to 2013. Moreover, Malaysian listed firms disclosed more human capital information compared to other categories of intellectual capital. The study's regression results provide evidence that Malaysian Financial Reporting Standards and corporate governance are determinants of intellectual capital disclosure. However, neither intellectual capital disclosure nor intellectual capital performance were significantly associated with firm market capitalisation. This is because only Capital Employed Efficiency, a component of intellectual capital performance, was significantly associated with firm market capitalisation. Nevertheless, the study found that the association between intellectual capital performance with firm market capitalisation became significant only when it is moderated by corporate governance. This study is considered useful because the meta-analysis technique has summarized the literature and highlighted the determinants of intellectual capital disclosure for future reference of researchers. Then, the regression results have provided empirical evidence that the regulatory requirements of Malaysian Financial Reporting Standards and Malaysian Code of Corporate Governance, both have had a positive effect on intellectual capital disclosure. These findings indicate that regulators' efforts have been worthwhile. Then, from the findings, a recommendation may be made to companies to invest more on structural capital as Capital Employed Efficiency influences firm value, however human capital is disclosed most in the annual reports of Malaysian companies. Finally, the findings provide empirical support for agency theory and the importance of corporate governance in enhancing intellectual capital performance's effect on firm value. As Malaysia strives to become a developed nation and promotes a knowledge based economy more efforts should be directed toward increasing intellectual capital since the study's findings revealed that intellectual capital performance does influence firm value, consequently the capital market, through a direct interaction with corporate governance.



## **APPROVAL PAGE**

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## DECLARATION

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*My beloved father, beloved mother, beloved sisters, my lovely sisters, grandmother,  
all my teachers, especially Ousstadh Taki, Dr. Fatima, and the Ummah*

أهدي هذا البحث إلى أبي و أمي الحبيبة و أخواتي و إلى جميع أفراد عائلتي وعلى رأسهم خالي فاتح و  
أساتذتي في مختلف المراحل الدراسية وبالخصوص د. فاطمة عبد الحميد و إلى زوجتي المستقبلية و إلى  
الأمة الإسلامية بشكل عام

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## LIST OF ABBREVIATION

AGE	Firm Age
ANOVA	Analysis of Variance
CEE	Capital Employed Efficiency
CEO	Chief Executive Officer
CG	Corporate Governance
CGI	Corporate Governance Index
CSR	Corporate Social Responsibility
FASB	Financial Accounting Standards Board
FRS	Financial Reporting Standards
GCC	Gulf Cooperation Council
HCE	Human Capital Efficiency
IC	Intellectual Capital
ICD	Intellectual Capital Disclosure
ICDM	Intellectual capital Disclosure for Mandatory Items
ICDT	Intellectual capital Disclosure for Total Items
ICDT	Intellectual capital Disclosure for Voluntary Items
ICP	Intellectual Capital Performance
IFRS	International Financial Reporting Standards
INDUSTRY	Industry Type
IPO	Initial Public Offering
LEV	Firm Leverage
MASB	Malaysian Accounting Standards Boards
MCAP	Market Capitalization
MCCG	Malaysian Code on Corporate Governance
MFRS	Malaysian Financial Reporting Standards
MV	Market Value
NACRA	National Annual Corporate Report Awards
PLC	Public Listed Companies
PROFIT	Profitability
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
RQ	Research Question
SCE	Structure Capital Efficiency
UK	United Kingdom
USA	United State of America
VA	Value Added
VAIC™	Value Added Intellectual Coefficient
VIF	Variance Inflation Factor

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND**

One of the key aspects highlighting the importance of Intellectual Capital (IC) in companies is the switch from focusing on tangible to intangible capital in value creation (Abeysekera, 2006). Research argues that intangible assets have grown to become an essential factor in generating additional value and gaining competitive advantage. This is consistent with Lev and Daum (2004) who state that the percentage of intangible assets in organisations' value has rapidly increased from 38% in 1982 to 62% in 1992. Whereas, Kaplan and Norton (2004) stated that firms' value from mid-1990 to 1998 might be represented by more than 75% of intangible assets. This growth has drawn attention to the issue of intangible assets. In an emerging economy, Salamudin, Bakar, Ibrahim and Hassan (2010) found that intangible assets represent 44% of Malaysian firms' market value. These statistics indicate a shift in the focus of management from tangibles to intangibles.

In this regard, an intangible asset can be defined as an asset without physical substance and is non-monetary in nature. Assets such as corporate intellectual property, goodwill, patents, and copyrights are classified as intangible assets. More importantly, a significant proportion of intangibles is intellectual capital (IC). Chen, Cheng and Hwang (2005) argued that firms' financial statements no longer depend on material goods in explaining firm value, but on the creation of IC. IC has been defined from various perspectives. From the knowledge perspective, Riahi-Balkaoui (2003) defined IC as the unique and precious knowledge that belongs to the firm. Similarly, Wagiciengo and Belal (2012, p.111) mentioned that "IC refers to the resource base of

an organisation which relates to, inter alia, knowledge and skill set retained by the organisation”. Closely linked to the knowledge perspective, IC could also be considered from an intellectual perspective. Kamath (2007) defined IC as the product of human intellect. IC could also be defined from a firm value creation perspective. Alipour (2012, p. 54) defined IC, “as the group of knowledge assets that are owned and/or controlled by an organisation and most significantly drive organisation value creation mechanisms for targeted company key stakeholders”. In line with the value creation perspective, Rehman, Rehman, Usman and Asghar (2012) stated that IC draws a gap between firms’ market and book value, which is a measurement viewpoint. Thus, IC can be defined as the difference between the market and book value of a firm (Liu, Tseng and Yen, 2009).

The intention to narrow the gap between firms’ market and book values has attracted more research on IC’s hidden value (Salamudin, Bakar, Ibrahim and Hassan, 2010; Maditinos, Chatzoudes, Tsairidis and Theriou, 2011). Specifically, IC improves firms’ competency towards its competitors, strategic asset, provides a better competitive position in the global market and creates firm value. It also portrays a clearer view of a firms’ real value thereby improving the company’s financial performance (Mavridis and Kyrmizoglou, 2005; El-Bannany, 2013). In light of the above, Abeysekera (2006) opines that since IC is a vital part of intangible assets and creates firm value, companies are placing greater focus on IC.

The intention to capture IC’s hidden value, motivated researchers, to focus on intellectual capital disclosure (ICD) and intellectual capital performance (ICP). In relation to the former, Ahmed Ousama, Fatima and Hafiz Majdi (2011) studied ICD’s impact on firms’ value. On the other hand, Firer and Williams (2003), Chen et al.

(2005), and Mehralian et al. (2012) investigated ICP, as measured by the impact of Value Added Intellectual Coefficient (VAIC) on firm value and performance.

The present research examines the effects of ICD and ICP on firm value. The study focuses on the period where Malaysian firms adopted the Malaysian Financial Reporting Standards (MFRS), and the Malaysian Code of Corporate Governance (MCCG) was amended.

## **1.2 PROBLEM STATEMENT**

IC is a crucial asset in the firm as it, directly and indirectly, influences firm value (Riahi-Balkaoui, 2003; Mavridis and Kyrmizoglou, 2005; Abeysekera, 2006; El-Bannany, 2013). Regardless of IC's significant influence on firm value, there is no agreement among researchers concerning its definition, measurement, determinants, and framework. This is perhaps due to its intangible nature, seemingly complex and subjective issues which make it hard to determine, especially issues related to ICD. This complexity resulted in prior studies studying the determinants that shape the presence of ICD in the firm using different methodologies (i.e. regression analysis and panel data analysis), samples, measurements, period and environment, all of which led to different results. These mixed findings present inconsistencies and contradictions that should be resolved prior to extend the literature further. This study attempts to integrate the results from prior studies by using the meta-analysis approach. Meta-analysis will help the current study to collect and integrate the findings of the previous ICD determinants' studies. The accumulation of prior ICD determinants' studies permits the present research to set up a conclusion about the most effective ICD determinants. The technique permits the study to examine determinants not previously studied.

Since disclosure is important, reporting standards have been issued to enhance disclosure practices. Given that Malaysia is targeting to become a developed nation by 2020, it has undergone developments of standards and strategies in line with globalisation, global market changes, and a knowledge-based economy. Specific initiatives have been employed to meet this target. The Malaysian government has also promulgated the idea of becoming a knowledge-based society and has incorporated this in its economic plan from 2001 to 2010 (Economic Planning Unit, 2001). These initiatives would promote an awareness of IC amongst the corporate sector as well as the society. In addition to the efforts of becoming a knowledge-based economy, on 1 August 2008, the Malaysian Accounting Standards Board (MASB) declared its plan of full convergence to International Financial Reporting Standards (IFRS) by 1 January 2012<sup>1</sup>. This resulted in a shift from Financial Reporting Standards (FRS) to MFRS. The MFRS is equivalent to IFRS so that reporting practices align with international standards. Complying with the MFRS would enable Malaysian firms to enhance their competitive level to be at par with their international counterparts. Moreover, the Malaysian government initiated a code of corporate governance (CG) in the form of the MCCG in 2000. This code has been revised on 2007 (Securities Commission, 2007) to require more transparency and disclosure in companies as a whole, particularly in relation to corporate governance. In 2012 the MCCG witnessed further amendments. The 2012 MCCG's aims to strengthen the board of directors and audit committees and the internal audit function and ensures that they discharge their responsibilities excellently. MCCG (2012) captures eight principles. The principles focus on the clear roles of the board, reinforce the effectiveness of independent directors, and ensure timely and high-

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<sup>1</sup> Malaysian Accounting Standards Board (MASB), [http://www.masb.org.my/index.php?option=com\\_content&view=article&id=1431](http://www.masb.org.my/index.php?option=com_content&view=article&id=1431)

quality disclosure (Bhatt, 2016). In other words, the new version of the code emphasises on strengthening board structure and composition by identifying the duties of directors as responsible and active fiduciaries. Thus, it can be argued that the new 2012 MCCG focuses more on CG effectiveness. These changes in the standards should have an effect on disclosure and figures in the financial statements, including those related to IC since an effective CG system provides better monitoring of disclosure practices. Furthermore, better CG mechanisms may effectively monitor ICP attributes as measured by VAIC (humane, structural and customer capital efficiency), effectively resulting in a positive influence of ICP on firm value.

On the other hand, Boekestein (2006) argued that the inclusion of IC in the company and enhancing IC information in the firm contribute to a company's competitive advantage, market value, and performance. Also, prior empirical studies found that IC practices have improved after standards adoption (Branco, Delgado, Sousa and Sa, 2011; Kim and Taylor, 2011; Haji and Mubaraq, 2012; Haji and Mohd Ghazali, 2012; 2013; Lia et al., 2013; Wang, 2013; Haji, 2015). Even though prior studies showed a significant impact of accounting standards on IC practices, none of these studies tested the joint impact of both MFRS and CG jointly on IC practices. Therefore, it is worthwhile to test whether this 2012 MFRS adoption and MCCG amendment in Malaysia result in increasing the ICD trend. It is also useful to examine whether the adoption of MFRS and amendment of MCCG in 2012 significantly influenced the extent of ICD. Moreover, companies and stakeholders are not convinced unless these efforts are reflected in firm value. Therefore, it is important to test whether adoption efforts and costs result in better reflection of IC on firm value.

Finally, companies and stakeholders are concerned with the MCCG amendment and its association with IC practices on firm value. Kenann and Aggestam

(2001) stated that wisdom and expertise of corporate governance, mobilised efficiently, harmonise different IC components toward realising firms' targets and values. Thus, it is worthwhile to test the extent to which MCCG influences IC towards better firm value. Furthermore, the MFRS adoption and MCCG amendments require better more disclosure quality and transparency, which reflect better disclosure practices. Thus, it is worthwhile, to test whether the shifts in new standards reflect in better ICD practices.

### **1.3 OBJECTIVES OF THE STUDY**

The study investigates the effect of IC on firm value of Malaysian listed companies considering MFRS (2012) adoption<sup>2</sup> and MCCG (2012) amendment for the years 2011, 2012, and 2013.

With respect to MFRS, the study focused only on MFRS 116: Property, Plant and Equipment; MFRS 119: Employee Benefits; MFRS 136: impairment of assets and MFRS 138: Intangible assets, as these standards contain requirements related to IC practices. In this regard, the mentioned standards can be related to ICD practices; where these standards requirements can be related to ICD categories (human capital, structural capital and external (customer) capital disclosure). This can be seen in the MFRS 119 requirements, which can be related to ICD items under human capital disclosure such as employee benefits. While, MFRS 136 and MFRS 138 can be related to items under both structural and customer capital disclosure such as other internally generated assets, joint venture, good will, and information about separately acquired intangible assets.

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Also, MFRS 116, MFRS 119, MFRS 136 and MFRS 138 are related to ICP by measurement ratios. Where, ICP is measured through value added to the intellectual capital coefficient (VAIC) method. VAIC is calculated through the total of three ratios namely; human capital efficiency (HCE), structural capital efficiency (SCE) and customer capital efficiency (CEE) (more details are provided in chapter five). In this respect, HCE can be related to MFRS 119 since HCE measures the value added of the amount of money spent on human capital. SCE can be related to MFRS 119 since SCE measures firm value added by the amount of money spent on firms' internal equipment. MFRS 119, MFRS 136 and MFRS 138 can be related to CEE measuring values since CEE is a ratio of (total assets-intangible assets) divided by (operating revenues –operating expenses). Thus, MFRS adoption may result in an efficient ICP measurement. For this, the following five objectives were developed:

- To examine firm characteristics (firms size, profitability, leverage, age and industry type) as determinants of ICD using the meta-analysis technique.
- To investigate the extent and determinants (MFRS and CG) of ICD in the annual reports of Malaysian listed companies for the years 2011, 2012 and 2013.
- To examine the association between ICD and ICP with firm value in the annual reports of Malaysian listed companies.
- To examine the moderating effect of corporate governance on the association between ICD and firm value in the annual reports of Malaysian listed companies.
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