

UNIVERSITI TEKNOLOGI MARA

**THE RELATIONSHIP BETWEEN
INTELLECTUAL CAPITAL AND
INNOVATION CAPABILITY**

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ABSTRACT

The primary aims of this research are to measure the level of innovation capability of the selected Malaysian public listed companies and to examine the relationship between intellectual capital and innovation capability of the firms. The unit of analysis was the managers of companies which comprised the assistant managers, managers, senior managers and general managers. The data collected were analysed using factor analysis and multiple regressions. The research posited twelve IC dimensions extracted from past literature i.e. human capital, structural capital, customer capital, organisational capital, social capital, relational capital, business capital, technological capital, intellectual property, infrastructure assets, process capital and renewal and development capital. The study revealed a substantial perceived level of IC residing in the firms. The Resource based view (RBV) postulates that IC is an important resource of the firms to sustain competitive advantage while the Knowledge based theory (KBT) argues that IC resources embedded with special characteristics and different types of knowledge capabilities are important for a firm to sustain competitive advantage and enhance its innovation capability. In addition, human capital was found to be the main dimension that is significantly and positively related to innovation capability. The study also revealed that structural capital, customer capital, organisational capital, technological capital, intellectual property, technological capital process capital, and renewal and development capital are also related to innovation capability. The empirical results provide strong evidence that Malaysian public listed companies which put greater emphasis on the intellectual capital (IC) can lead to better enhancement of innovation capability. Thus, the power of each IC dimension when combined together can lead to a more significant contribution to enhance innovation capability. The implication is that the ability of the management to develop and deploy IC resources is vital. Most importantly, a more substantial impact from intellectual capital on company innovation capability can be reaped. Nonetheless, to facilitate for intended interactions and outcomes, appropriate strategies to integrate and combine all the IC resources are crucial. Likewise, human capital is considered as apex dimensions of IC. Thus, managers should invest more in their human capital, as its interaction with other dimensions of IC can generate greater impact on innovation capability. They should continue to develop the skills and capability of the individuals in order to exploit their benefits. Nevertheless, the management should also continue to develop other dimensions of IC, as they are also contributors to company innovation capability. Finally, the main contribution of this study is that a broader set of IC dimensions were used to examine the relationship between IC and innovation capability from the Malaysian perspective. The research also managed to identify the perceived theoretical framework of IC definition from a Malaysian's perspective, namely among the assistant managers, managers, seniors and general managers of selected Malaysian Public listed companies.

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

The emergence of intellectual capital (IC) in the knowledge-based economy has made the traditional accounting method seems inadequate to capture the true value and performance of companies. IC which is also referred to as intangible resources and capabilities is now widely acknowledged as the most important source of value creation and competitive advantage (Drucker, 1991; Grant, 1996). Accordingly, Grant et al. (1991) point out that these intangible assets with no physical existence are at the core of the unique and inimitable endogenous resources on which firms rely on to generate and sustain their competitive advantage, in which Tumwine, Kamukama & Ntayi (2012) refer to as intellectual capital.

Accordingly, there is an increasing trend to relate the innovation capability of an organisation to knowledge management, measured in terms of IC, as reflected in the Oslo Manual (OECD, 2005). Lopez-Saez (2010) and Dumay, Rooney and Marini (2013) argue that IC which embedded with much knowledge is a primary resource of innovation capability Therefore, central consideration to nurture this knowledge where intellectual resources are embedded should be observed (Grant, 1991).

For innovative companies, particularly those that are technology intensive, intangible assets often play a critical role in business success (Sanchez et al., 2001). Kramer, Marinelli, Iammarino and Diez (2011) argue that in the knowledged - based economy, IC has emerged as a vital resource for an organisation's innovation strategy. Therefore, IC is considered as the most powerful asset of an organization in promoting firms' innovative capability (Kuan & Chao, 2014). Imperatively, the knowledge capabilities that IC is embedded in, has led it to be conceived as the most strategic resource to create and sustain competitive advantage (DeNisi, Hitt & Jackson (2003).

The Resource-based theorists, on the other hand assert that the dimensions of IC are the primary sources of a firm competitive advantage and innovation capability (Grant, 1991; Wu & Sivlogahthasan, 2013). Thus, it shows a clear relationship exists