

The Influence Of Knowledge Management And Leveraging Of Intellectual Capital On The Organization Performance : A Case Study Of Telekom Malaysia

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ABSTRACT

This paper investigates the influence of Knowledge Management and Leveraging of Intellectual Capital on the performance of Telekom Malaysia. The study was conducted through questionnaire survey of 400 Telekom Malaysia (TM)'s executives from the TM's headquarters and all the state business areas. The dependent variable is the performance of TM which includes the operating efficiency, business performance, organisational leadership and business leadership. The independent variables are knowledge management, intellectual capital and leveraging of the intellectual capital. Relevant statistical techniques such as regression and correlation test, factor analysis and ANOVA are used in this study. It was found that knowledge management has an indirect influence to the performance whereas leveraging the intellectual capital has the greatest positive influence to the performance. The results of this study have significant contribution to TM's strategy in managing, leveraging and develop the intangible asset for a sustainable overall performance of TM.

Keywords

Knowledge Management, Leveraging, Intellectual Capital, Performance, Human Capital, Structural Capital, Relational Capital, Spiritual Capital

1.0 INTRODUCTION

Economists frequently describe the basic resources necessary for an industrial enterprise in terms of the three classic kinds of assets – land, labour and financial or other economic assets (Sullivan, 2000). During the last two decades, the business environment have progressively moved into a knowledge-based fast-changing, technology intensive company in which investments in human resource, information technology and research and

development have become essential in order to strengthen the firm's competitive position and ensure its future viability (Canibano, 2000). The current business environment cannot be predicted with relative ease as before due to the messy and complex challenges that are happening now and in the future. Many organizations believe that, embarking into the knowledge economy is one of the best business strategies to making sure for the organization to survive in the very competitive and turbulent environment. Companies have recently given focus on knowledge and intellectual capital by managing and leveraging their intellectual capital with the hope to improve their immediate and long term business.

2.0 KNOWLEDGE MANAGEMENT AND INTELLECTUAL CAPITAL

Generally intellectual capital is considered to be the stored knowledge possessed by an organization, which may be tacit knowledge, personal knowledge possessed by an employee and may be explicit knowledge, codified and stored by the organization and available to individuals throughout the structure (Nonaka & Takeuchi, 1995). The importance of intellectual capital is emphasised in the revolution in information technology and the information society, the rising importance of knowledge and the knowledge-based economy, the changing patterns of interpersonal activities and the network society and the emergence of innovation as the principle determinant of competitiveness (Petty & Guthrie, 2000).

Knowledge is the meaningfully structured accumulation of information which may be categorized as explicit or tacit (Hubert & Stuart, 1984). Explicit knowledge can be formally articulated, more easily transferred or shared but is abstract and removed from direct experience. Tacit knowledge is developed from direct experience and action often referred to as knowledge-in-practice. It is

highly pragmatic, situation-specific, subconsciously understood and applied, difficult to articulate and usually shared through highly interactive conversation, story-telling and shared experience (Zack, 1996). Knowledge must be internalized and made tacit to be truly understood and applied to practice, it is best exchanged, distributed, or combined among communities of practice by being made explicit. Once shared, explicit knowledge can be internalized and made tacit again by reapplying it to practice furthermore knowledge is a resource of value creation with a major attribute of appreciating value with continuing use and sharing of knowledge instead of depreciating value of tangible resources (Arthur, 1996). This constant cycle of tacit creation leading to explicit combination and exchange enlarges the total knowledge base of the organization (Nonaka, 1995).

Intellectual capital and knowledge have a very strong relationship. The definitions of intellectual capital by many authors clearly include the element of “knowledge” such as – intellectual capital is, intellectual material-knowledge, information, experience, intellectual property that can be put to create wealth (Stewart, 1999; Chatzkel, 2002), the ‘stock’ of knowledge that exists in an organization at a particular point of time (Bontis *et al.*, 2001). At the same time the critical role of “knowledge” in intellectual capital is highlighted by other authors such as – an organization increases its intellectual capital by creating, sharing and leveraging knowledge (Allee, 2003) and managing and integrating knowledge to develop intellectual capital (MacDougal & Hust, 2002). Intellectual capital can be seen as the framework for intangible resources in an organization as well as a way to understand the stock of those resources. Knowledge management leverages intellectual capital through an integrated approach to create, share, and apply knowledge for desired outcomes and both intellectual capital and knowledge management are two branches of the same tree (Chatzkel, 2002). Stewart (2001) identifies three pillars for knowledge economy to stand. The first is that knowledge has become what we buy, sell and do. The second pillar is a mate, a corollary to the first: knowledge assets – that is, intellectual capital – have become more important to companies than financial and physical assets. The third pillar is the need of new vocabularies, new management techniques, new technologies and new strategies to exploit these newly vital assets.

Knowledge management involves gathering, structuring, storing, and accessing information to build knowledge. It also involves creating a culture that encourages and facilitates the creation and sharing of knowledge within an organization (Boyet & Boyett, 2001). Organizations which manage

knowledge effectively exhibit the following characteristics (Zack, 1996):

- (i) Applying maximum effort and commitment to creating, sharing and applying their knowledge.
- (ii) Applying an appropriate level and mix of skill, knowledge and expertise to problems and opportunities.
- (iii) Employing an organizational and technical knowledge processing strategy appropriate to the situation.
- (iv) Engaging in effective communication as evident by the reliable, accurate, timely and meaningful exchange of information and knowledge.

3.0 KNOWLEDGE MANAGEMENT, INTELLECTUAL CAPITAL AND BUSINESS PERFORMANCE

Intellectual capital has been identified as a key resource and driver of organizational performance and value creation (Itami, 1991; Teece, 1998; Mayo, 2000). Narver and Slater find that market orientation, relational capital and business performance (ROA) are strongly related (Narver & Slater, 1990) and Jaworski & Kohli (1993) find that market orientation is an important determinant of performance on his study of 222 US business units. Intellectual capital, which is considered the most important intangible asset in the company, significantly affects the valuable change and success of the organization through understanding, developing and managing the company’s intangible assets (Nonaka & Takeuchi, 1995). Youndt (1998), Bontis (1998), Bontis *et al.* (2000), Walker (2001) and Shook (2002) empirically shows the are a positive relationships between intellectual capital and performance.

Beside intellectual capital, knowledge which has a strong relationship with intellectual capital also forms the foundation of company business performance (Marr *et al.*, 2002), it is a strategic resource for the company to develop its sustainable competitive capability (Davenport & Prusak, 1998) and knowledge stocks, flows and creation are closely related to business performance (Grant, 1996; Bontis, 1999). However the most knowledgeable firms are not always the most profitable. Knowledge only leads to superior performance if the industry characteristics enable the knowledgeable company to appropriate the profits from the new ideas (Bierly & Daly, 2002).

4.0 RESEARCH METHODOLOGY

In this case study research, a quantitative research approach is used with a pragmatic knowledge claim with strategies of inquiry that involve qualitative data

collection – questionnaire survey. The aim of this study is to investigate the influence of knowledge management and leveraging of intellectual capital on the performance of Telekom Malaysia. Two important independent variables have been identified – knowledge management and leveraging of intellectual capital and the dependent variable is the perceived performance improvement of Telekom Malaysia. Knowledge management determines the extent of knowledge identification, acquisition, application, sharing, development, creation and preservation of knowledge to the overall performance of Telekom Malaysia. Leveraging of intellectual capital in to determine the extent of leveraging of intellectual capital to the overall performance of Telekom Malaysia. These aspects are important to ensure intellectual capital which consists of human capital, structural capital, relational capital and spiritual capital that exists in the minds, hearts of the employees and in the organization of Telekom Malaysia is leveraged to achieve sustained and improved business performance. The dependent variable is the perceived performance of Telekom Malaysia which covers the aspect of operating efficiencies, business performances, organizational leadership and business leadership. The perceived performance of Telekom Malaysia is based from the understanding of the respondents on Telekom Malaysia performance as stated in the Telekom Malaysia's 2005 annual report and any other official literature or documents on Telekom Malaysia which had been read by the respondents. These performance indicators are relevant and important in measuring the stage of Telekom Malaysia performance as a telecommunication industry leader in Malaysia.

5.0 DATA COLLECTION, DATA ANALYSIS AND DISCUSSION

For the purpose of data collection, a Likert-type scale questionnaire with 45 items has been designed, pilot-tested, re-designed and distributed to 400 executives at various departments and states as respondents, based on disproportionate stratified random sampling method. 344 respondents responded. The data analyses begin with quantitative data analysis, performing relevant statistical tests to determine the correlation between variables and to understand the generalised results, followed by qualitative data analysis, to identify the relationship and corroboration between them for a holistic understanding of the phenomena under study to make a conclusion. The internal consistency reliability of the measures from the survey is acceptably good with all variables from Cronbach's Alpha Coefficient more than 0.7. A response bias check is done to the non-responded respondents and the results show that the integrity of this survey is highly maintained. The overall mean for knowledge management is at 3.35

and leveraging of intellectual capital is at 3.32 and finally the perceived performance improvement is at 3.01. From the T-test analysis and ANOVA test against the demographic items, the results show that generally there are no significant difference between age, gender, department and place of works of respondents for all variables. However, there are significant difference between qualification, job-grades and length of service for all variables. This may be due to the respondent's knowledge, exposures, responsibilities and expectations in their daily works.

The regression analysis and path analysis show that all the variables have a significant positive relationship amongst them. Leveraging of intellectual capital has a significant positive causal relationship with perceived performance whereas knowledge management has an indirect positive causal relationship with performance. In-depth study from the data has been done with the following findings:

- (i) Knowledge management practice is critical in order to leverage, at the maximum, the present intellectual capital and at the same time to allow the process of intellectual capital to grow especially the values, skills, knowledge, attitude, behaviours and practices of the employees.
- (ii) Performance improvement of Telekom Malaysia needs to be supported by a strong leadership especially at the higher management, competence and skills of the employees in the areas of technical and the soft-skills. The employees also must have strong values, a clear vision and understand the overall framework and direction of the company. All these will strengthen their commitment, sincerity, loyalty and motivation to perform their jobs.
- (iii) Evidence from the means of the survey show that the respondents moderately disagree when expressing their opinion that the performance of Telekom Malaysia is improving in term of profit, market share, revenue, operating efficiency, customer satisfaction index and new products and services launched. They also moderately disagree when expressing their opinion that Telekom Malaysia's performance is improving in the aspects of leadership index, employee satisfaction index, responsiveness to market needs and that Telekom Malaysia is a forward-looking organization. The respondents seem to agree that Telekom Malaysia is a Malaysian telecommunication industry leader and able to compete globally.
- (iv) Tentatively evidence may suggest that Telekom Malaysia is not improving in terms of business performance, operational

performance, customer satisfaction, leadership and employee satisfaction indexes due to, moderately average level of knowledge management practices and moderately average level of leveraging of intellectual capital in Telekom Malaysia. Evidence seems to suggest that all these have a strong influence on the performance of the company.

6.0 CONCLUSION

Knowledge management has a significant positive relationship with leveraging of intellectual capital and leveraging of intellectual capital has a significant positive relationship with perceived performance of Telekom Malaysia. This means that knowledge management practices in Telekom Malaysia such as identification and acquisition of knowledge in quality improvement activities such as problem solving techniques, cycle time reduction, Six Sigma and sharing of the knowledge by the employees will enhance the experience, skills, know-how and competencies of the employees. All these have a relationship with the understanding and implementing of the overall quality management system such as TMBEA, the commitment, confidence and courage of the employees to deliver an excellent service to customers. This will result in an improvement in customer's satisfaction level, which will in turn cause Telekom Malaysia's performance improvement. These findings support the previous findings by Choo (2003) that suggest that the motivational potential and systematic method has a positive relationship with knowledge, and knowledge has a positive relation with performance. Bontis (1999) express that knowledge stocks, flows and creation are closely related to business performance and Marr *et al.* (2002) in their case study of three e-business companies' show that knowledge forms the foundation of a company's business performance.

The survival and performance sustainability of an organization in the long run will be determined by how the right capital mix between physical and intellectual capital of the organization is leveraged to satisfy the interest of its stakeholders. Conventional assets – financial and physical capital – have not disappeared and will not, but given how important knowledge has become, as a product and process that add value to work, it's inevitable that intangible asset would become a more important asset for organizations – their most important assets (Stewart, 2001) comparable to the traditional land, labour and tangible assets (Sullivan, 1998) and intellectual capital will play a central role in fuelling the success of companies in this century (Zohar, 2004).

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