INTELLECTUAL CAPITAL IN INNOVATIVE FIRM

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Abstract - This research was conducted to investigate the influence of intellectual capital on overall innovation and R&D activities in an innovative firm. The firm is a leader in natural goat's milk-based cosmetics and health products in Malaysia. Intellectual capital consists of four components, human capital, structural capital, relational capital and spiritual capital. This research was a case study and qualitative approach was applied to gather data. The Marketing Manager, Human Resource Manager, Factory Operation Manager, administrative workers, factory workers, IT personnel and customers of the firm were interviewed. The information from the interviews was analyzed using codes and transcription. Finding of the study indicates that among the intellectual components, structural capital is the highest contributor to the firm's innovation. Among the recommendations made to the firm are to increase human capital with high expertise, to have a systematic documentation, to cooperate with organization's external environment and strengthen spiritual value. Future researches are suggested to use instruments other than interviews and widen the scope to more than one firm or industry.

Keywords - Intellectual Capital; Human Capital; Structural Capital; Relational Capital; Spiritual Capital; Innovation

I. INTRODUCTION

In a fully competitive world, intangible assets are very important for an organization (Stewart, 1999) because in the 21st century, economy requires high investments in knowledge assets such as information technology, Internet business, brands, patents, and copyrights. These knowledge assets are also known as intellectual assets or Intellectual Capital (IC) (Seetharaman et al., 2002; Dean and Kretschmer, 2007). IC's existence is fundamental to the success of the organization. IC becomes a critical resource for the viability and success of the firms as it has an impact on business performance (Bontis et al., 2002). This research focused on the firm that manufactures natural goat milk-based cosmetics and health products purely made in Malaysia. Formulas and modern technology are applied as innovation to further strengthen the company's excellence in local and international markets.

II. PROBLEM STATEMENT

IC is gaining firms' attention in leading their activities in order to be more valuable. Therefore, the firms need to pay attention to IC and its components and apply it strategically. Since this firm is innovative, it is important and interesting to find out how they use existing assets of the firm to generate revenue. The challenge here is to sustain the human capital so that they continue generating knowledge and ideas (Roos et al., 1997). Customers are important to this firm, however, their satisfaction is difficult to maintain. It should be sustained if the firm wants to keep good relationship with them. Ethics is also emphasized among the employees in order to carry out the firm's business transaction as well as their earnestness and enthusiasm in achieving sales target. These IC components is directly related with the firms' innovation as today it has become very critical and is a priority in all aspects of the business. Apart from that, product innovation highly depends on IC. With the challenges of globalization today, every business needs to complete the science of innovation in products and services in order to compete locally and internationally.

III. OBJECTIVES OF THE STUDY

This study examines the use of IC and innovation in an innovative firm. Intellectual capital components were studied in detail and the role of innovation was also investigated. The objectives of this study were: (1) to examine the use of IC in an innovative firm. (2). to learn how to do product innovation in an innovative firm. (3). to assess how the firm develops innovation capital.

IV. LITERATURE REVIEW

4.1 Human Capital. Human capital consists of knowledge, education, skills and characteristics of members of the organization (Edvinsson and Malone, 1997), information, and capabilities and it is brought by individuals on behalf of the firm through an employment relationship (Bontis (1998), Galunic and Anderson, 2000).

4.2 Structural Capital. The Structural capital is defined as knowledge that remains in the firms even though the employees are no longer members of the firms (Roos et al., 1998). According to Skandia (1994), it is the ability in organization, organizational commitment, knowledge management system, technology systems, databases, institutional arrangement, the operation, maintenance philosophy, organizational culture, reputation image, patents, copyrights, and trademarks and all other items related to procedures and software (Bounfour, 2003).

4.3 Relational Capital. Relational capital refers to the ability of organizations to interact in positive manners

with outsiders and creating wealth creation potential of human capital and structural capital. It requires resources associated with the external relations of the firms such as relationships with customers, suppliers, partners, and local communities as well as the knowledge that underlies this relationship (Sveiby, 1997; Edvinsson and Malone, 1997; Bontis, 1998).

4.4 Spiritual Capital. Spiritual capital is the intangible knowledge, beliefs and emotions contained in the minds and hearts of individuals and organizations which involve vision and direction, principles, values and culture, motivation, confidence, enthusiasm, strength, commitment, teamwork, desire, and passion to work in groups (Mazlan, 2005). It covers all aspects of psychological, moral and spiritual knowledge and expertise (Zohar and Marshall, 2004).

4.5 Innovative Firm. Innovation research provides the elements that add commercial value that is element used by the firm to develop products (Porter, 1990). One way for the firm to innovate is through product innovation which defined as the process of updating and improving products, processes, materials and services that are developed and converted to the appropriate market (White and Bruton, 2007).

V. METHODOLOGY

Data is obtained qualitatively from interviews, observations, archival documents such as reports, magazines and company budgets. The total of interviewees was 25. They were among marketing manager, operation manager, finance manager, product development manager and human resource manager, company employees, stockists, customers and consumers. They were selected because they involved directly in the internal and external activities of the organization and have broad knowledge of the organization. Data analysis was conducted by the process of transcribing, coding and categorizing from interviewees answer scripts.

VI. FINDINGS

6.1 The Use and Development of IC in Innovative Firm

The employees are research experts who constantly making new discoveries to produce better quality products for the benefit of users, for examples, goat's milk tablet and supplement drinks. The experts have many years of experience from their previous job in large corporations in Malaysia. With the existence of these individuals, firms can be innovative in create value (Miller, 1999). This firm keeps information on the related people to the firm such as customers, the technology process to manufacture a product being documented, in the database (Andriessen, 2001). An online system is used to facilitate product orders from members, distributors and stockists, records informations pertaining to purchases and sales, as well as product distribution process (Andriessen, 2001) for the firm's products to reach consumers. The relationships are not solely a business based, but they involve long association with suppliers, cooperation with government agencies, competitors and social responsibility to the community. Rewards and bonuses are given as a way to show appreciation and give motivation to attain the company goals. Members of the firm have the awareness and intention to succeed in life. In order to achieve that, they passionately perform the business activities as it is their responsibilities to ensure that the firm can reach its goal (Wilber, 1996). In conclusion, the results showed that to understand and develop the different types of IC, firms need to create unique and new paths for innovation. When the firm understands the value and the important of innovation, it can automatically align the uniqueness that will be added in their future product with the abilities of IC that the company have.

IC is fully utilized through organization learning which individuals in the company can share their knowledge (Bontis et al., 2000). This firm is looking after the welfare of its employees because the firm knows that they are important assets that drive business activities. Employees' knowledge leads to the good quality of production, as they knew what the benefits that can be obtained from certain products (Marta, 2009). The firm established a system of patent protection which can prevent the occurrence of products counterfeit cases in the market (Carroll and Tansey, 2001). The firm is also working with government bodies such as Federal Agriculture and Marketing Authority (FAMA) to obtain supplies of raw materials, namely goat's milk. Marketing plan which is designed to increase employee motivation was created and a considerable portion of the firm's profits can be distributed to distributors and qualified recognized members.

6.2. Product Innovation in Innovative Firm

The findings indicate that the firm's product, which is goat's milk tablet, is designed to meet the needs of the market. All the deficiencies that exist in each product are taken into account by getting the feedback from customers. Each of their comments and views is recorded and the extent of their truth and rationale is analyzed. Improvement process of the product innovation is a technical knowledge resulting from R&D done in this firm (Pablos, 2004). The new discovery, namely the production of goat's milk from liquid to powder form and goat's milk are innovations which led by the firm. This innovation eliminates the disadvantages of liquid milk.

VII. FUTURE RESEARCH

This study was conducted through interviews and study of archival documents but method can be expanded to other instruments such as observation

and visual materials. This type of study can also be conducted in other types of firms that also have high investment in IC.

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