

## INTELLECTUAL CAPITAL AND ITS MAJOR COMPONENTS

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### ABSTRACT

*The purpose of this paper is to examine a number of major theoretical and empirical contributions in the field of intellectual capital with an attempt to identify the major components of intellectual capital. Today the concept of intellectual capital is increasingly recognized as one of the most important strategic assets of organizations in knowledge-based economy. In knowledge-based economy, modern and high tech enterprises not only focus on innovation of new products, services, and marketing, research and development activities but also pay particular attention to the development and management of organization intellectual capital.*

**Key words:** Intellectual Capital, Physical Capital, Financial Capital

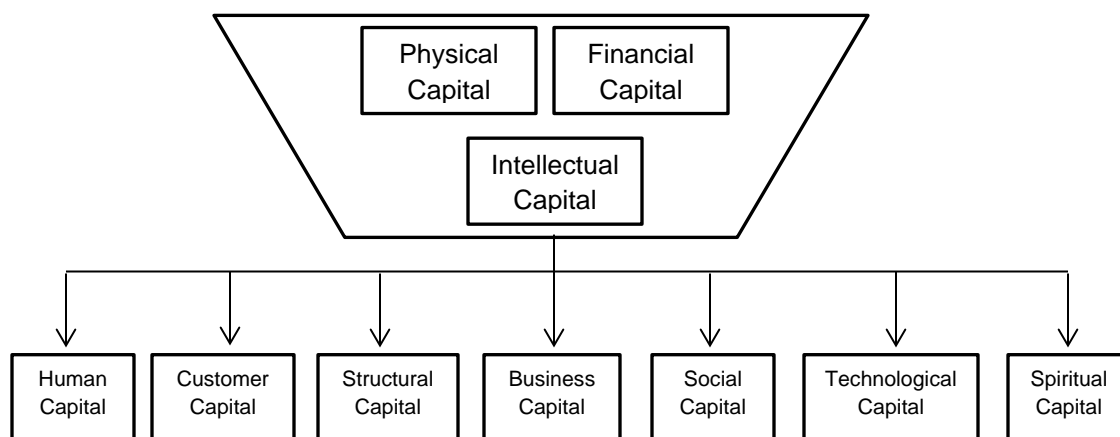
### INTRODUCTION

In the last two decades, the concept of intellectual capital has been catching eyes. There is a significant number of researchers, practitioners, and academicians who discussed the concept and its importance in knowledge-based economy. According to Akhavan et al., (2009) stated that knowledge is considered as one of the most important properties of organizations in the contemporary management theory and practice. However, knowledge is accepted as a sustainable strategic asset to achieve and maintain competitive advantages (Drucker, 1985; Grant, 1991). According to Kozak, (2011) the traditional factors such as land, labor, and capital do not disappear but they become secondary. As Foray (2004), point out that in the knowledge-based economy the contribution of intangible assets is greater than tangible assets. In knowledge-based economy intellectual capital is the most critical asset of the organization (Amiri et al., 2010; Shaari et al., 2010 ; Ramezan, 2011). Ramezan (2011) stresses that intellectual capital is based on knowledge, therefore intellectual capital is at the heart of organization capabilities. Hosnavi and Ramezan , (2010) stated that intellectual capital is used to create and enhance the organizational value and performance. There is no doubt in knowledge-based economy organizations face fierce global competition. Bagherzadeh et al., (2010), said, to fight the business threats at local or global level the concept and practice of knowledge and intellectual capital should be researched and applied.

Furthermore, organizations need to utilize their all resources both tangible as well as intangible assets to gain competitive advantage. Now days, the importance of intellectual capital is highly

recognized as a successful factor not only in knowledge-intensive organizations but also for most other types of organizations (Lonnqvist and Mettanen, 2002). Therefore, it is indispensable for organizations to understand the concept of intellectual capital in real sense then they will be able to utilize their intellectual capital more efficiently and effectively.

However, researchers in the early stage of the development of intellectual capital include in a Stewart, (1997), Sveiby, (1997), Brooking, (1996), Edvinsson, (1997), Roos et al.,(1997) and Bontis, (1998) agreed that intellectual capital is mainly based on three components namely human capital, customer capital and structural capital. They also stated that, intellectual capital based on various intangible resources such as employees, competence, knowledge, education, skill, intellectual agility, brand name, customer relation and organization structure (Kujansivu, 2009; Bontis et al., 2000). Even though, the concept of intellectual capital in their research and introduces two more components namely social capital and technological capital (Bueno et al., 2004; Wu and Tsai; 2005). Heterogeneity of external agents recommends the explicit diction between business capital and social capital, both are included in the relation capital component as can be seen in Euroforum, (1998), Bueno, (2001), or in the customer capital (Bontis, 1996; Stewart, 1997). According to Ismail (2005) extends the concept of intellectual capital and indentified spiritual capital as another important component. He found that’s spiritual capital has positive impact on the performance of organizations. However, Ramezan (2011) stated that the components of intellectual capital includes human capital, organizational capital or structural capital, technological capital, social capital, business capital and customer capital. A synthesis from existing literature provides seven important components of intellectual capital which are given in figure 1.



**Figure 1**  
Integrated Intellectual Capital Model

**MAIN COMPONENTS OF INTELLECTUAL CAPITAL**

Several contributions in literature review have provided different frameworks for identifying and classifying the concept of intellectual capital. Even through intellectual capital dimensions are

sources of benefit for the firm competitive (Bontis, 1998). However, one or several dimensions of intellectual capital have effect on the performance of organizing in varying magnitudes (Bontis, 2001; Wang and Chan, 2005; Pablos, 2004). Even though, it is indispensable for organizations to understand the concept of intellectual capital in depth and explore the components of their intellectual capital in organizations. Therefore, on the basis of the above discussion we can conclude that intellectual capital is mainly based on human capital, customer capital, structural capital, business capital, social capital, technological capital and spiritual capital.

### **HUMAN CAPITAL**

The principal sub components of an organization's human capital (HC) are its workforce's skill sets, depth of expertise, and breadth of experience. Human resources can be thought of as the living and thinking part of intellectual capital resources (Roos et al., 1997). However, human capital is the heart of intellectual capital. It relates to employee's knowledge, competence, skill, capability and innovation (Edvinsson and Malone, 1997; Bontis, 1998; Shaari et al., 2010; Isaac et al., 2010; Khalique, 2011). Moreover, employees also generate intellectual capital through their competence, attitude and intellectual agility (Roos et al., 1997 ; Bontis et al., 2000). Human capital includes the skill and competencies of employees, their know-how in certain fields that are important to the success of enterprise and their aptitudes and attitudes. Employee loyalty, motivation and flexibility will often be significant factors too, because a firm's expertise and experience pool's developed over time. A high level of staff turnover may mean that a firm is losing these important elements of intellectual capital.

### **CUSTOMER CAPITAL**

Customer capital (CC) is one of the most important components of intellectual capital. It is pointed out based on knowledge embedded in the marketing channels and customer relations with organizations that develops in conducting business (Bontis et al., 2000). However, customer capital is mainly based on the relationship between the organization and its customers (Edvinsson and Malone, 1997, Shaari et al., 2010; Tai-Ning et al., 2011). Even though, relationship with customers is very important for organization because customers buy products or services from the enterprises (Roos et al., 2001; Hill and Jones, 2001). According to Tai-Ning et al., (2011) customer are main source for revenue generation of organization and it is very important for organizations to satisfy their customer needs. Therefore, customer capital is an important component of intellectual capital and it is based on customer satisfaction, loyalty and engagement.

### **STRUCTURAL CAPITAL**

Structure capital (SC) of organization represent all the non-human storehouses of knowledge including database, organizational chart, strategies routines, process manuals and policies (Bontis et al., 2000; Wu and Tsai, 2005). Therefore, structural capital as "what remains in the company when employees go home for the night" (Roos et al., 1998). Cohen and Kaimenakis (2007), organizations do not have their own human capital while structural capital belongs to the organization as a whole and it can be replicated and shared. According to Joshi et al., (2010) structural capital is a knowledge created by an organization and it cannot be separated from the

entity. However, structural capital provides the environment that support individuals to invest their human capital to create and leverage its knowledge (Steward, 1997; Shin et al.,2010). Ramezan, (2011) argued that structural capital mainly deals with the system and structure of an organization. Even though, Bontis, (1998) stated that if an organization has poor structural capital then it will be difficult to reach the full utilization of overall intellectual capital. Strong structural capital of an organization lead full utilization of intellectual capital (Ramezan, 2011).According to the literature it can be summed up that structural capital consists of infrastructure, data and information, procedures and policies.

### **BUSINESS CAPITAL**

Business capital (BC) refers to the value to the organization of relationships with the main agents connected with its basic business process (Gregorio, 2000). Furthermore, business capital consists of (1) relationships with customers – relations with different segments of customers who demand or could demand the product which make up the basic business process of the entity, (2) relationships with suppliers which relationships with different suppliers of necessary resources for the basic business process, (3) relationship with shareholders, institution and investor which make up the market in which the organization operates, (4) relationship with allies which collaboration agreements which the organization maintains with a certain level of intensity, continuity and structure with other institutions, (5) relationship with competitors which existing relationships with other competitor in the same industry as well as in related ones, (6) relationships with quality improvement and promotion institutions which those that the institution maintains with the aim of improving this key issues in its processes, products as well as in managing the entire company. Otherwise, business capital as a “sum of resources accumulated in the organization by a stable network of intra-organizational relationships”, (Bourdieu and Wacquant, 1992). Therefore, business capital is an important component of intellectual capital and it is based on partnership, alliances and joint venture.

### *Social Capital*

Social Capital (SC) that is another important component of intellectual capital. Naphat and Goshal, (1998) stated organizations having high social capital can take more competitive advantage. Otherwise, social capital is a “sum of current and potential resources incorporated in, available in, and derived from the network of relations possessed by an individual or social unity”, (Nahapiet Ghoshal, 1998).According to Paldam, (2000) social is “the glue that holds societies together”. It can emphasized that social capital are value of human connections based on confidence and personal networks (Cohen and Prusak, 2001).Even though, they stress that without social capital innovation, sharing of knowledge and productivity can be dramatically reduced in organization. Yazdani dan Yogoubi , (2011) stated that social capital include relationship, attitudes and value that manage interactions among people and contribute to economic and social development in a society. Moreover, social capital is playing highly significant role in the development of intellectual capital in an organization (Cohen and Prusak, 2001; Bueno et al., 2004; Hamzah and Mat Isa, 2010). Social capital is a major value added in organization and it is based on social networks, informal relation, formal relation and trust.

### *Technological Capital*

Technological capital (TC) is the role that is related to knowledge –based economy and it is highly acknowledged. Otherwise it also knowledge that related to access, use of innovation of production techniques and product technology (Fernandez et al., 2000). According to Bueno et al., (2006) argued that technological capital is the set of intangible asset which is based on innovation and technical process. According to Rami’rez (2010), technological capital is an intangible asset and it is derived from technical knowledge. Furthermore, Ramezan (2011) also stated that technological capital is a part of intellectual capital and is a combination of knowledge related to the development and technical system of an organization. Both internal and external scope which are related to the development of products and services of the organization. Technological capital is based on the research & development and information technological knowledge (Bueno et al., 2006). According to the literature it can be summed up that technological capital consists of information technology (IT), knowledge research development (R & D) and protection rights.

### *Spiritual Capital*

Spiritual Capital (SpC) is a critical component that important an intellectual capital. According to Berger and Hefner, (2003) stated that, spiritual capital is a combination of power, influence, spirit and knowledge that can gain through religion. However, spiritual capital is a leader can deploy spiritual resources in social context and they follow God’s will by following divine laws or values in their daily lives (Fry, 2003). Ismail (2005), stated that, spiritual capital as an additional components of intellectual capital. He also found that spiritual capital is playing very an important role to enhance the organizational performance of Telecom Malaysia. Otherwise, he also said, spiritual capital is an “intangible knowledge, faith and emotional embedded in the minds of individuals and in the heart of the organization which includes vision, direction, guidance, principles, value and culture”. Even though, Liu (2008) argued that spiritual capital as the power and influence that are created by a person or organization with the help of spiritual and religious beliefs and knowledge. Howard, (2002) stated spiritual capital has consistence and definite purpose for people such as looking for meanings of life. Spiritual Capital consists of forgiveness, integrity, empathy, faith, kindness, happiness and honesty. Base on the above literature reviewed, it can be summed up that spiritual capital also an important component of intellectual capital and it is making significant contribution to the performance of organization. Lastly, spiritual capital can be divided into two dimensions such as religious and ethical value.

## **CONCLUSION AND FUTURE RESEARCH**

Consequently, based on the above discussion, intellectual capital is recognized as one of the most important assets for organization to gain competitive advantage. The concept of intellectual capital was introduced in the west. However, a significant number of studies from west found that intellectual capital of organizational performance. Even though, the term intellectual capital of organizations is still quite new for Eastern countries, particularly the Asian Sub Continents. This research hopes to be able to assistant the understanding the concept of intellectual capital in depth. Future research can apply this integrated intellectual capital model in organization to examine the benefit of intellectual capital on organization.

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