INTELLECTUAL CAPITAL AND ITS MAJOR COMPONENTS

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ABSTRACT

The purpose of the present paper is to re-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, marketing, research and development activities but also pay particular attention to the development and management of organization intellectual capital.

INTRODUCTION

In the last two decades, the concept of intellectual capital was eyes catching. A significant number of researchers, practitioners and academicians discussed the concept and its importance in knowledge-based economy. 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. 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 disappeared but they become secondary. Foray (2004) pointed 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). Intellectual capital is the lubricant of knowledge-based economy. According to Ramezan (2011) intellectual capital is based on knowledge, therefore intellectual capital is a heart of organizational capabilities. Intellectual capital is used to create and enhance the organizational value and performance (Hosnavi and Ramezan, 2010). There is no doubt in knowledge-based economy organizations face fierce global competition. Therefore, to fight the business threats at local or global level the concept and practice of knowledge and intellectual capital should be researched and applied (Bagherzadeh et al., 2010).

In these days organizations need to utilize their all resources both tangible as well as intangible assets to gain competitive advantage. Today 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 effectively and efficiently.

The term intellectual capital was first introduced by Jon Kenneth Galbraith in 1969 (Chang and Hsieh, 2011). Generally there is no uniformly accepted definition of intellectual capital (Chang and Hsieh, 2011). Kozak (2011) pointed out that the concept of intellectual capital is still underdeveloped, and there is no uniform definition accepted for identifying its subcomponents. However, many researchers defined the same concept of intellectual capital but in different ways. One of the most short and snappy definition of intellectual capital is given by Stewart (1997, p. 67) as “packaged useful knowledge.” Stewart (1997) stated that intellectual capital is a total stock of the collective knowledge, information, technologies, skills, expertise, intellectual property, customer loyalty and team management that can be used to create value of the products and services in organizations. Edvinsson, (1997) defined that intellectual capital is the sum of human capital and structural capital. Stewart (1997) extended intellectual capital into three part human capital, customer capital and structural capital.

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Many well known researchers in the early stage of the development of intellectual capital included 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 stated that intellectual capital based on various intangible resources, such as employees competence, knowledge, education, skill, intellectual agility, brand name, customer relationship and organization structure (Kujansivu, 2009; Bontis et al., 2000). Bueno et al., (2004) and Wu and Tsai (2005) extend the concept of intellectual capital in their research and introduced two more components namely social capital and technological capital. In the same way, Ismail (2005) extends the concept of intellectual capital and indentified spiritual capital as another important component. He found that spiritual capital has positive impact on the performance of organizations. However, Ramezan (2011) identified the component of intellectual capital includes human capital, organizational capital or structural capital, technological capital, social capital and business process capital or customer capital. A synthesis from existing literature provides six important components of intellectual capital which are given in Fig.1.

![Figure: 1 Integrated Intellectual Capital Model](image)

In most cases intellectual capital includes intangible assets, e.g., knowledge, skills of employees, customer satisfaction, loyalty, policies, procedures, social value, intellectual property, industrial property, faith, ethics etc., (Edvinsson and Malone 1997; Sveiby 1997; Brooking 1996; Bontis, 1998; Ismail, 2005; Bueno et al., 2004). Therefore, on the basis of the above discussion we can conclude that intellectual capital is mainly based on human capital, customer capital, structural capital, social capital, technological capital and spiritual capital.

**Main components of intellectual capital**

Several contributions in literature review have provided different frameworks for identifying and classifying the concept of intellectual capital. Bontis (1998) stated that intellectual capital dimensions are sources of firm competitive advantage. However, one or several dimensions of intellectual capital can affect on the performance of organizations in varying magnitudes (Bontis, 2002; Wang and Chang, 2005; Pablos, 2004). Therefore it is indispensible for organizations to understand the concept of intellectual capital in depth and explore the components of their intellectual capital in organizations. Six important components of intellectual capital are highlighted.

**Human Capital**

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). Roos et al. (1997) and Bontis et al. (2000) pointed out that employees generate intellectual capital through their competence, attitude and intellectual agility. Competence includes skills and education; attitude covers the behavioral dimensions of the employee’s work while intellectual agility based on innovativeness and solution of business problems. Fitz –enz (2000) stated that human capital consist of knowledge, talent and experience of employees. Human capital is a major source of value addition in organizations and it is based on skills, knowledge and expertise, competence, attitude, and intellectual agility of employees.

**Customer capital**

Customer capital is also one of the most important components of intellectual capital. 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). Bontis et al. (2000) pointed out that it is based on the knowledge embedded in the marketing channels and customer relationships that an organization develops through the course of conducting business. Roos et al., (2001) and Hill and Jones (2001) stated that the relationship with customers is very important for organizations because customers buy products or services from the enterprises. Therefore, customers are the main source for revenue generation of organization. It is very important for organizations to satisfy their customers needs (Tai-Ning et al., 2011). In the same way, Bontis et al., (1998) and Ngah and Ibrahim, (2009) also stated that customer capital or relational capital is based on the relationship that the organization has established with its customers, suppliers stakeholders. Therefore, customer capital is an important component of intellectual capital and it is based on customer satisfaction, loyalty and network.

**Structural capital**

Structural capital of organizations represents all the non-human storehouses of knowledge including databases, organizational charts, process manuals, strategies, routines and policies (Bontis et al., 2000; Wu and Tsai, 2005). Roos et al. (1998) pointed out that structural capital as “what remains in the company when employees go home for the night”. According to 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. In the same way Joshi et al., (2010) stated that structural capital is a knowledge created by an organization and it cannot be separated from the entity. According to Stewart (2000) and Shih et al. (2010) structural capital provides the environment that support individuals to invest their human capital to create and leverage its knowledge. However, Ramezan, (2011) argued that structural capital mainly deals with the system and structure of an organization. Structural capital is very important for the organizations to create value added products and to take competitive advantage. 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. Ramezan (2011) argued that strong structural capital of an organization lead full utilization of intellectual capital. According to the literature it can concluded that structural capital of organizations is consisting of infrastructure, system policies and procedures.
Social capital

Another important component of intellectual capital is Social capital. Organizations having high social capital can take more competitive advantage (Naphat and Ghoshal, 1998). Bourdieu and Wacquant (1992) defined social capital as a “sum of resources accumulated in the organization by a stable network of intraorganizational relationships”. According to Nahapiet Ghoshal, (1996), 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”. Paldam (2000) stated that social capital is “the glue that holds societies together”. Cohen and Prusak (2001) emphasized that social capital represents the value of human connections based on confidence and on personal networks. They stressed that without social capital innovation, sharing of knowledge and productivity can be dramatically reduced in organizations. Social capital includes relationships, attitudes and values that manage interactions among people and contribute to economic and social development in a society (Yazdani and Yagoubi, 2011). Nahapet & Ghoshal (1998) introduced three dimensions of social capital which is widely accepted such as structural, cognitive and relational. These dimensions of social capital create the value of the intellectual capital of an organization. Bueno, (2002) and Bueno et al., (2004) stressed that it must be noted that it should not be erroneously identified social capital with business capital or customer capital that derived from the relationships with agents such as customers, suppliers and competitors. Social Capital includes the set of relationship with the remaining social agents. 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 Matt Isa, 2010).

Technological Capital

In a knowledge-based economy the role of technological capital is highly acknowledged. Fernandez et al (2000) argued that technological capital which includes knowledge related to access, use of innovation of production techniques and product technology. Bueno et al., (2006) stated that technological capital is the set of intangible assets which is based on innovation and technical process. According to Ram’rez (2010), technological capital is an intangible asset and it derives from technical knowledge. In the same way, Ramezan (2011) 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. It is based on the activities and functions both internal and external scope which are related to the development of products and services of the organization. Technological capabilities of organizations, particularly knowledge intensive organizations, are seemed as one of the basic foundations of their competitiveness (Afuah, 2002; Nicholls-Nixon and Woo, 2003; Zott, 2003; Wang et al., 2004). Bueno et al., (2006) stated that technological capital is based on the research & development and information technological knowledge. Garch’a-Muin’a and Pelechano-Barahona (2008) argued that the higher the technological knowledge of an organization, the greater the protection of intellectual capital against imitation. Therefore, on the basis of above mentioned literature, it can be concluded that technological capital is one the most important component of intellectual capital, and it is based on information technology (IT), knowledge research development (R&D) and protection rights.

Spiritual capital

Spiritual capital is a critical component of intellectual capital. Spiritual capital is a combination of power, influence, spirit and knowledge that can gained through religion (Berger and Hefner, 2003). Fry (2003) stated that due to spiritual capital 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. Ismail (2005) introduced spiritual capital as an additional component of intellectual capital. In his study Ismail found that spiritual capital is playing very a important role to enhance the organizational performance of Telecom sector in Malaysia. According to Ismail (2005) spiritual capital is defined as “the intangible knowledge, faith and emotion embedded in the minds of individuals and in the heart of the organization which includes vision, direction, guidance, principles, values and culture”. In the same way, 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. Spiritual capital has consistence and definite purpose for people such as looking for meanings of life (Howard, 2002). Spiritual capital consists of happiness, forgiveness, kindness, faith, integrity, empathy and honesty (Mitroff and Denton, 1999; Kriger and Seng, 2005). Consequently, on the basis of literature reviewed it can be concluded that spiritual capital is also an important component of intellectual capital, and it is playing significant contribution to the performance of organizations. It is mainly based on two dimensions such as religious and ethical values.

Conclusion and Future Research Avenue

Intellectual capital is recognized as one of the most important assets for organization to gain competitive advantage. The concept of intellectual capita was firstly introduced in the West. A significant number of studies from West found that intellectual capital is the most important ingredient that it playing critical role to increase the organizational performance. However, the term intellectual capital of organization is still quite new for the Eastern countries, particularly the Asian Sub Continents. This paper hopes to be able to assistant the understanding the concept of intellectual capital in depth. Future research can apply this proposed integrated intellectual capital model in organization to examine the impact of intellectual capital on organizations.

REFERENCE


