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Enhancing Employee Human Capital Benefits through Investment in Knowledge Management: A Conceptual Model

Birasnav M

Park Global School of Business Excellence,
Coimbatore - 641659, India

Rangnekar S

Indian Institute of Technology Roorkee,
Roorkee - 247667, India.

Dalpati A

Indian Institute of Technology Roorkee,
Roorkee - 247667, India.
Email: birasnav@gmail.com

Abstract

Organizations nowadays have been more concerned on human capital development as intangible resources or human capital have remarkable contribution on sustaining competitive advantage. Though many researchers reported the significance of human resource management practices in this kind of developmental process, they have also shown interrelationship between human capital and knowledge management (KM). However, a precise theoretical framework or hierarchical structure explaining the relations between human capital creation or human capital benefits and KM is scarce in the literature. Following previous researches, this paper concentrates on KM process architecture and KM infrastructure (organizational culture and communication) to predict employee perceived human capital benefits symbolizing the creation of human capital at an individual employee level. This review is integrated using a model and propositions that relate KM process and infrastructure with human capital benefits.

Keywords: *human capital; knowledge management process; organizational culture; communication*

Introduction

In this context of innovation focused industrial development, most of the organizations have greatly been involved in exploring essential ways of creating sustainable competitive advantage. Many researchers asserted that intellectual capital is the most important source to sustain competitive advantage and emphasized the establishment of an integrated mechanism to develop intellectual capital (for example, Roos and Roos, 1997; Williams, 2001). In this direction, organizations concentrate on their employees to generate intellectual capital. Researchers describe these people who contribute to generate intellectual capital as human capital which is referred to as employee's knowledge, skills, capabilities, and commitment (Skandia, 1998; Snell and Bohlander, 2007), and in addition with these attributes, some described as know-how and ideas and health (Ulrich *et al.*, 1999; Sullivan, 1999; Becker, 1962). Thus, human capital is a part of intellectual capital (Skandia, 1998), and consequently,

literature highlights the importance of human capital management aspects on augmenting organizational performance (see Bontis and Fitz-enz, 2002). On focusing human capital developmental process, leadership and human resource management (HRM) practices are very much concentrated in the researches (Edmondson, 1996; Lepak and Snell, 2002). As well, a few studies described the relationship between knowledge management (KM) and human capital development (for example, Smith, 1998; Darroch, 2003), and nevertheless, a precise theoretical framework explaining the relations between these two is needed. Even though the hierarchical structure of KM comprising of KM process architecture and KM infrastructure is well-analyzed in the literature, researchers explained this structure to predict KM performance and KM effectiveness (Lindsey, 2002; Zaim *et al.*, 2007). KM process architecture describes the process of knowledge acquisition, knowledge documentation, knowledge transfer, knowledge creation, and knowledge application (Filius *et al.*, 2000). In this paper, we focus on established organizational culture and communication flow under KM infrastructure. Apart from leadership and HRM practices, this study focuses upon the contribution of KM on employee perceived human capital creation in terms of the benefits they receive from their human capital.

Though proper investment in human capital augments organizational financial performance and productivity (Acemoglu and Pischke, 1999), it is inevitable that this investment also renders certain benefits to employees (Birasnav and Rangnekar, 2009). Supporting the nexus of KM with human capital benefits, we review both theoretical and empirical researches in the field of human capital management and KM. This review is integrated using a model shown in Figure 1 and propositions that relate KM aspects with human capital benefits.

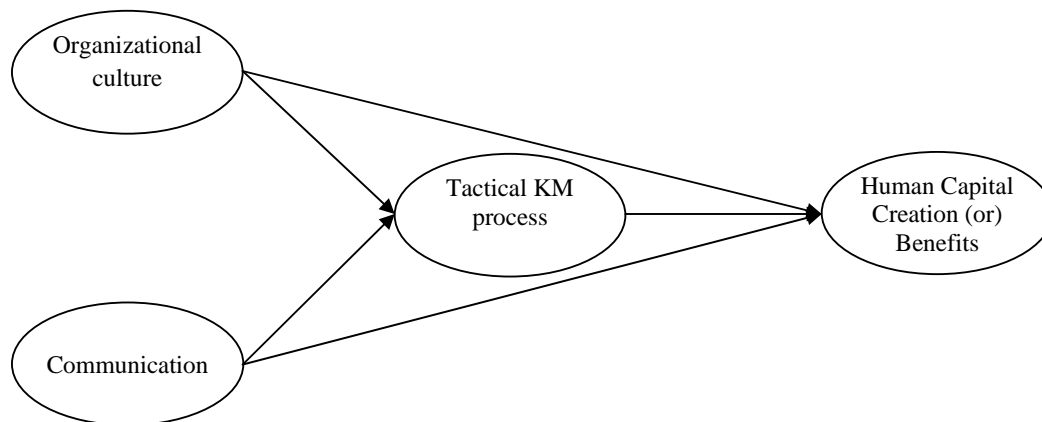


Figure 1. Knowledge management and Human capital benefits

Definition of KM variables and Human capital benefits

In order to manage the turbulent economic environment, organizations create unique knowledge derived from their employees through establishing knowledge supportive environment to acquire, share, and create knowledge among employees. Since knowledge is in employee's brain in the form of knowing about their customers, products, and processes, and as well their mistakes and successes (Grayson and O'Dell, 1998), it is viable to create organizational knowledge. So firms are more concerned on managing employees' knowledge effectively. Botha (2007) defines KM as "the ability to utilize the knowledge resources effectively and in a timely manner, for company benefit or advantage" (p. 7). Researchers frequently quote two

perspectives of KM such as tactical and operational perspective (Wiig, 1997), and some of them describes as tactical and strategic KM (Bukowitz and Williams, 1999). In tactical perspective, employees' involvement in knowledge activities is immensely focused, and in strategic perspective, knowledge based assets are focused (Filius *et al.*, 2000). Recognizing the contribution of KM on human capital, tactical KM process is considered due to the reason that employees are involved in the entire KM process which is a cyclical process constituting of knowledge acquisition, documentation, transfer, creation, and application (Filius *et al.*, 2000).

Establishing conducive environment and necessary communication facilities are necessary for acquiring, documenting, transferring, creating, and applying knowledge (Davenport *et al.*, 1998). In this direction, this paper considers organizational culture as "holistic, historically determined, and socially constructed, and it involves beliefs and behaviour; it exists at a variety of levels, and manifests itself in a wide range of features of organizational life" (Detert *et al.*, 2000, p. 854). Consequently, organizations involve in executing activities that ensure uninterrupted cyclic flow of KM process. Communication infrastructure is essential to transfer knowledge from top management to employees and among employees. Emphasizing the prevalence of communication in the organization, Loveridge (1996) defines communication as "a dimension of structure in which information is transmitted throughout the organization to provide data for decision making, to motivate employees, to exercise control, and to express satisfaction or dissatisfaction with operations" (p. 9). Therefore, employees must be given information about the organizational activities, goals, and directions, and they also must be allowed to have channels to convey information to top management (Rodwell *et al.*, 1998).

As stated earlier, tactical KM process is integrated with knowledge workers, and so it has significant role on human capital developmental process in the organizations. According to Wiig (1997) and Bontis (2001), human capital is defined as employees who possess competence, capabilities, and innovativeness and apply to accomplish organizational goals. In this direction, investments on human capital not only create intellectual capital for organizations, and simultaneously, it yields some extent of benefits to employees as well. Such human capital benefits are high individual return on investment, increase in compensation, being a future leader, opportunity to participate in high profile project, and increase in status and authority (Ulrich *et al.*, 1999; Bontis and Fitz-enz, 2002; Birasnav and Rangnekar, 2009). In this paper, we consider these benefits to represent human capital creation at an individual employee level throughout the organizational life. Thus, we define employee perceived human capital creation or benefits as the degree to which an employee feels human capital creation or benefits when efforts are taken for mutual benefits of employee and organization.

Organizational culture, KM process, and Human capital benefits

According to Barney (1986), organizational culture has potential to contribute to sustainable competitive advantage. Though many kinds of organizational culture are described in literature, authors showed through research studies that establishing innovation-supportive culture among employees promotes employees' creativity, willingness to experiment, and risk-taking skills (O'Reilly *et al.*, 1991; Jassawalla and Sashittal, 2002). In particular, Bontis (2001) mentioned innovativeness as a component of human capital, and thus, innovation-supportive culture renders certain human capital benefits to employees, specifically, improving employees' performance

and earnings in their organization. The improvement of innovative behavior helps employees to perform better than other employees, and consequently, these employees would be considered as future leaders (Conger and Fulmer, 2003). Thus, culture develops future leaders and enhances human capital benefits. Miron *et al.* (2004) found that when outcome is uncertain in the organization, established innovative culture encourages employees to find entirely new ways to solve task problems, and supports employees to involve in risk-taking activities and to explore new ideas. Consequently, this kind of culture immensely augments employees' innovative performance. Particularly, they also found that when detail-oriented culture is integrated with innovative culture, the researched employees' performance were not satisfactory.

Further, towards linking organizational culture and human capital benefits, Corbett and Rastrick (2000) found from a research study conducted among 40 New Zealand manufacturing firms that firms working under constructive culture report high quality performance through reducing defects in the production volume. These results ensure that having a stable organizational culture causes employees to deliver high return on investment. Bontis and Fitz-enz (2002) described employee satisfaction, motivation, and commitment as the antecedents of human capital development. Focusing from their view, Pool (2000) concluded from a study conducted among 305 various kinds of US business organizations that widespread of constructive culture in the organization supports to reduce role conflict and ambiguity among employees, and consequently, it augments employees' performance, commitment, and satisfaction through lowering job tension. However, it should be noted that the effective contribution of organizational culture on human capital benefits requires the longevity of employees in the current organization (Bontis and Fitz-enz, 2002).

Of linking both organizational culture and KM, Bontis and Fitz-enz (2002) describe that combined employees' tacit knowledge which resides in their human mind and behavior are in the pattern of organizational culture. It has more chances to interact with explicit knowledge created by an individual employee. As a result of conversion, a new knowledge is generated among employees. In addition to describe the importance of organizational culture for KM implementation, Devenport *et al.* (1998) quote that culture is required to change employees' behavior toward knowledge activities and to improve KM process. In the direction of discussing knowledge creation, established knowledge-supportive culture in firms encourages employees' gathering to discuss job related problems and current developments and to deliver knowledge-based solutions. Thus, collaborative knowledge culture provides an opportunity to improve managers' technical and conceptual knowledge (Yao *et al.*, 2007). Lai and Lee (2007) found that entrepreneurial culture is positively related to implemented knowledge activities such as knowledge transferring, diffusing, storing, and innovating new knowledge. It implies that entrepreneurial culture promotes knowledge creation and transfer among employees through which it facilitates employees' innovativeness and risk-taking skills. Further, knowledge-supportive culture fosters employees to participate in expert networks comprising of professionals, suppliers, customers, and employees. McCampbell *et al.* (1999) described this type of network as KM approach executed in the organization. Due to the nature of multi disciplinary expertise, employees acquire and share knowledge, and consequently, they improve problem solving skills and creativity. These innovative and creative behaviors enable employees to produce high return from the

investments made at them and increase the chances of improving their salary progression.

Al-Alawi *et al.* (2007) study revealed that organizational culture explains significant positive relation with knowledge sharing. In specific, organizational culture significantly predicts knowledge transfer performance in terms of speed, accuracy, and reliability (Syed-Ikhsan and Rowland, 2004). On particularly focusing knowledge sharing and human capital benefits, Srivastava *et al.* (2006) found from a research conducted among 102 teams that knowledge sharing is positively related to performance. In other words, knowledge sharing enables employees to produce high return on investment in the form of intellectual assets. As knowledge is one of the components of human capital, improvement in the current knowledge increases the benefits derived from human capital. Knowledgeable employees are participating in high profile projects not only to utilize their human capital for organizational benefits, but to create new knowledge among employees also (Filius *et al.*, 2000). However, it should be noted that many organizations are lacking in establishing organizational culture to create, share, and disseminate knowledge (Pillania, 2006). Thus, these arguments lead to

Proposition 1: *The widespread of organizational culture supports employees to achieve their human capital benefits.*

Proposition 2: *Organizational culture augments employee's human capital benefits through tactical KM process implemented in the organization.*

Communication, KM process, and Human capital benefits

It is commonly accepted that communication has a vital role in both organizational functioning and organizational effectiveness improvement (Bush and Frohman, 1991). As well, open and easy communication contributes to achieve competitive advantage (Zander, 1994). In the organizations, prevalence of communication is realized through conveying safety information to employees to prevent loss of human capital, disseminating information about management activities to employees, collecting feedback from employees, presence of intranet and internet facilities to acquire and share information. In nature, employees mostly perform interdependent jobs in any organizations, and involving in communication network is a prerequisite since acquiring information to effectively complete jobs is vital. In this direction, communication or communication network affects individual employee performance (Brass *et al.*, 2004). Further, Smidts *et al.* (2001) conducted a research among 402 employees, which revealed a significant direct relationship between communication and organizational identification that augments employee performance.

In contrast, Rodwell *et al.* (1998) found in the Australian companies that communication significantly negatively affected employee's self-rated performance. However, they showed that prevalence of communication ensures increased commitment and job satisfaction of employees. According to Ulrich *et al.* (1999), commitment increases employees' human capital in addition with their capabilities. In the current turbulent economic environment, all firms established advanced technology based communication facility to augment human capital. The reason is that Valacich *et al.* (1993) found from a research study that groups using computer-mediated and electronic communication for interactions highly generate more unique and high-quality ideas that help them to improve their human capital. Further, technology integrated communication network has significant contribution in

employee creativity (Brass *et al.*, 2004). However, creating a fit between task and technology is essential in any organization while using computer mediated communication for interaction due to the reason that technology would not be equally suited with many employees (Gutek, 1990). On comparing electronic and face to face communication, Bordia (1997) found that employees using computer mediated communication deliver good job performance than employees using face-to-face communication when available time is limited.

Following direct impact of communication on human capital benefits, there are also certain literature which explains mediation effect of KM process in the relationship between communication and human capital benefits. Literature acknowledges the positive relationship between communication and knowledge sharing (Lu *et al.*, 2006; Al-Alawi *et al.*, 2007). As said earlier, knowledge sharing supports employees to generate high return on investment in the form of intellectual properties. Importantly, it should be noted that Syed-Ikhsan and Rowland's (2004) study found insignificant relationship between communication flow and knowledge transfer and between communication and knowledge assets in terms of tacit and explicit knowledge. However, they found positive relationship between information and communication technology infrastructure and knowledge transfer and knowledge assets. Smith *et al.* (2005) found that the rate of introducing new products is higher when a team uses stronger communication networks. This network supports employees to incorporate ideas into new products or processes development through which knowledge creation takes place (Filius *et al.*, 2000). Leaders reward employees who create new knowledge in the organization (Goodwin *et al.*, 2001; Bass and Riggio, 2006). Since this kind of reward augments employee salary progression, communication has certain impact on employee perceived human capital benefits through KM process. The above arguments lead to

Proposition 3: *Prevalence of communication flow in the organization supports to enhance employee perceived human capital benefits.*

Proposition 4: *Tactical KM process has potential to mediate the relationship between communication and employee perceived human capital benefits in the organization.*

Conclusion

Researchers deeply investigated the human capital management field to identify the impact of the human capital aspects on organizational performance (for example, Bontis and Fitz-enz, 2002). These researches emphasized the need of developing human capital in the organization. In literature, the relationship between KM and human capital is very well explained and combined knowledge process capability and knowledge infrastructure capability is focused to measure KM effectiveness (Lindsey, 2002). However, employee perceived human capital benefits and KM structure which includes tactical KM process, organizational culture, and communication is not much studied in both KM and human capital management field. To bridge this gap in the literature, this paper explores the relationship between KM and employee perceived human capital benefits such as high individual return on investment, increase in compensation, being a future leader, opportunity to participate in high profile project, and increase in status and authority. The conducted systematic literature review in this paper suggests the following conclusions: established organizational culture in the organization supports employees to achieve their human capital benefits; the prevalence of communication flow in the organization leads to augmenting employee

perceived human capital benefits; and in these relationships, tactical KM process executed in day to day activities by employees plays a mediator role.

Future research may focus on empirically testing the proposed model (see Figure 1). Empirical testing requires standard scales or constructs for organizational culture, communication, tactical KM process, and employee perceived human capital benefits. In this direction, O'Reilly *et al.* (1991) developed a scale for organizational culture; for communication, a scale developed by Al-Alawi *et al.* (2007) could be used; Filius *et al.* (2000) constructed a questionnaire for tactical KM process; and from combining the arguments of Ulrich *et al.* (1999), Bontis and Fitz-enz (2002) and Birasnav and Rangnekar (2009), creation of construct for employee perceived human capital benefits is viable. The linkage between culture and communication is not much focused in this paper, and in future, concentrating this relationship would produce certain appealing results in KM field. As this model emphasizes employees' human capital benefits, there are certain employee's personal variables to be controlled for and considered for further research. For example, employee's age, gender, education, rank, and tenure should be considered. The reason is that education is the prime component of human capital (Becker, 1962). In general, highly educated employees receive better compensation, and so education affects employee perceived human capital benefits. Therefore, after controlling for these variables, the mediation effect of tactical KM process could be tested.

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