COMPETITIVE ADVANTAGE AND KNOWLEDGE MANAGEMENT: THE ROLE OF HRM

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Abstract

Knowledge Management has gained popularity in the last decade and is increasingly becoming a central topic in management philosophy. Knowledge management (KM) is about developing, sharing and applying knowledge within the firm to gain and sustain a competitive advantage (Petersen and Poufelft, 2002). Knowledge Management has emerged as an important tool to improve organizational effectiveness.

Our purpose is to identify the inter-linkages between knowledge management and an organization’s competitive advantage from the vantage point of employee learning, satisfaction and HR practices.

The RBV (resource based view) of the firm has been used as a strategic framework for aligning knowledge management with strategic planning. The paper explores the importance of people management practices and their impact on competitive advantage in the knowledge economy. The paper explores challenges to human resource management in managing knowledge workers and aims to identify some key HR strategies for effective people-centric management in knowledge organizations.

The paper concludes by offering the practitioner a conceptual understanding of strategy and knowledge management linkage and its impact on multiple stakeholders with emphasis on people management practices.

Key words: Knowledge Management, RBV, people management, competitive advantage.

Introduction:

In today’s intensely competitive business environment, keeping up with the demands of clients, competitors, investors and regulators has become a major challenge for most organizations. In such a scenario, it is being increasingly realized by managers across the globe that knowledge in the form of expertise and competence is emerging as one of the organisation’s most important asset and that its quality and availability can help them to face the demands of the knowledge economy. Organisations that excel at leveraging their knowledge assets in a systematic way will create and sustain a competitive advantage that will exceed the current and future demands placed upon them.

The challenge of managing the knowledge assets of the organisation introduces a new business philosophy, namely knowledge management, which directs decisions on where, how and when to create,
accumulate, update and account for new knowledge. It was in the mid-late 1990s that Tom Stewart (1998) began developing the case for knowledge as one of an increasing number of “intangible assets” that were beginning to dominate late twentieth-century organizations. Knowledge management (KM) is about developing, sharing and applying knowledge within the firm to gain and sustain a competitive advantage (Petersen and Poulsen, 2002). The leveraging of knowledge entails understanding the complex web of social, technical, financial and human resources that must be tapped by organizations if any competitive advantage is to be derived (Davenport et al., 1998; Prusak, 1997). Knowledge management applies systematic approaches to find, understand, and use knowledge to create value (O’Dell, 1996). Knowledge management is the formulation of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value (Beckman, 1997). KM is a strategy that turns an organization’s intellectual assets—both recorded information and the talents of its members into greater productivity, new value and increased competitiveness, it teaches cooperation from managers to employees, how to produce and optimize skills as a collective entity (Murray, 1998). Knowledge management is a mindful strategy of getting the precise knowledge to the right people at the precise time and helping people share and place information into action in methods that attempt to develop organizational performance (American Productivity Quality Center, 1999a).

Knowledge management is a cross-disciplinary field drawing from a wide range of technologies such as cognitive science, expert systems, artificial intelligence and knowledge-based management systems, computer-supported collaborative work (groupware), library and information science, technical writing, document management, decision support (business intelligence) systems, semantic networks, relational and object databases, simulation and organizational science (Barclay and Murray, 2000).

KM is a sense that it has technical social and economic components. In technical terms it involves centralizing knowledge that is currently scattered across the organization. Moreover, it extends to the attempt to codify tacit forms of knowledge. In this more centralized and explicit form, knowledge can be accessed by a variety of groups according to business needs. This is of course the rationale that has been driving intranet, database and groupware approaches to KM.

In social and political terms, KM involves collectivizing knowledge so that it is no longer the exclusive property of individuals or groups. Thus knowledge is abstracted from highly situated processes of social learning such that its use is no longer so closely tied to its creation. Such a view of KM goes to the heart of potential conflicts between the organization and occupational groups over the ownership of particular knowledge and related problems. In economic terms, KM is a response to organizations’ need to intensify their creation and exploitation of knowledge. This reflects the rising competitive pressures for innovation and the more rapid turnover of new products and services. KM may serve to increase the throughput rate for converting knowledge into new products and services.

2. Knowledge Management and Strategy Models

This section describes Porter’s five forces model followed by a review of the resource-based-view of the firm as defined by Wernerfelt (1984). The discussion attempts to highlight the difference between competitive advantage and sustained competitive advantage.
**Porter’s five forces model:**

According to Porter (1979), the nature and degree of competition in an industry hinge on five forces: the threat of new entrants, the bargaining power of suppliers, the threat of substitute products or services and the jockeying among current contestants. The focus of this model is on the external side of strategy, helping firms utilize the opportunities and countering threats in the industry. According to Barney (1995), firms that use their internal strengths in exploiting environmental opportunities and neutralizing environmental threats, while avoiding internal weaknesses, are more likely to gain competitive advantage than other types of firms.

**Resource-based view of the firm:**

Developing and sustaining a competitive advantage has become a key driver of organizational success in today’s dynamic business environment. To develop and exploit a competitive advantage, firms must possess capabilities that can be used to create valuable, rare and imperfect imitable resources (Barney, 1991).

The resource-based theory of the firm stems from the work of Penrose (1959), among others, and has been developed in work by Wernerfelt(1984). Resource-based theory of the firm suggests that firm resources and capabilities influence the growth and performance of the firm( Penrose, 1959; Barney, 1991).The resource-based theory focuses on costly to copy firm resources that could be a source of sustainable competitive advantage (Dierickx and Cool, 1989; Peteraf, 1993).

Firm’s resources consist of all assets both tangible and intangible, human and non-human that are possessed or controlled by the firm and that permit it to devise and apply value-enhancing strategies (Barney,1991, Wernerfelt, 1984).Resources and capabilities that are valuable, uncommon, poorly imitable and nonsubstitutable (Barney, 1991) comprise the firm’s unique or core competencies (Prahlad and Hamel, 1990) and therefore present a lasting competitive advantage. Intangible resources are more likely than tangible resources to generate competitive advantage (Hitt et al.,2001). Specifically, intangible firm-specific resources such as knowledge permit firms to add up value to incoming factors of production(Hitt., et al. 2001).Such an advantage develops over a period of time and is not easy to replicate. It is imperative to understand that knowledge can become a source of competitive advantage which not only is difficult but also time consuming to imitate.

KM can be presented as a convergence of ideas promulgated over the last decade, including core competencies and resource-based theories of the firm, “info-mapping” and information resource management, the ‘balanced scorecard’, and intangible/intellectual assets, the learning organization and communities of practice, total quality management, business process reengineering, the networked organization and the ‘boundaryless firm’ (Corall, 1998).
3. Driving Forces behind Knowledge Management

Knowledge management is increasingly recognised by senior executives as an important dimension of the business strategy and a contributor to organisational performance. Malhotra (1998), Nonaka (1991), Skyrme (1997) and Wiig (1993) identify a number of driving forces behind knowledge management. These include the realisation of the changing role of knowledge, cost avoidance, the leveraging of knowledge to enable corporate success, value and measurement of intangible assets, globalisation of business and international competition, and sophisticated customers, competitors and suppliers. In this paper, we have explored the importance of people management practices and their impact on competitive advantage in the knowledge economy.

4. Knowledge Management and People Practices

Scholars have argued recently that knowledge is dependent on people and that HRM issues, such as recruitment and selection, education and development, performance management, pay and reward, as well as the creation of a learning culture are vital for managing knowledge within firms (Evans, 2003; Carter and Scarbrough, 2001; Currie and Kerrin, 2003; Hunter et al., 2002; Robertson and O’Malley Hammersley, 2000). Smith and Kelly (1997) believe that:

. . . Future economic and strategic advantage will rest with the organisations that can most Effectively attract, develop and retain a diverse group of the best and the brightest human Talent in the market place.

Obviously, this puts HR at the forefront of knowledge economy (Soliman and Spooner, 2000).

6. KM and HRM strategies

Hansen et al. (1999) argue that there are basically two strategies for managing knowledge. They term these strategies “codification” and “personalisation.” The former refers to the codification of explicit knowledge that is formal and objective and can be expressed in words, numbers and specifications. Such knowledge tends to be stored in databases where it can be accessed and used readily by anyone in the company. Such organisations invest heavily in ICT for projects like intranets, data warehousing and data mining, knowledge mapping (identifying where the knowledge is located in the firm) and electronic libraries. This increases effectiveness and growth (Hansen et al., 1999, p. 110): “The re-use of knowledge saves work, reduces communications costs, and allows a company to take on more projects.”

Personalisation refers to personal development of tacit knowledge that is based on insights, intuition and personal skills for solving complex problems. Such knowledge is mainly shared through direct person-to-person contacts. Dialogues, learning histories and communities of practice are among the techniques that have to be used in order to facilitate tacit knowledge sharing. It is based on the logic of “expert economics”, i.e. it is used primarily to solve unique problems, where rich, tacit personal knowledge is needed, such as in strategy consulting. Hansen et al. link both KM and HRM to the competitive strategy of the firm; i.e. it is not knowledge in itself but the way it is applied to strategic objectives that is the critical ingredient of competitiveness. This account stresses the need for best fit between HRM practices
such as reward systems and an organisation’s approach to manage knowledge work. According to Hansen et al. (1999, p. 113) the relevant fit is as follows:

The two KM strategies call for different incentive systems. In the codification model, managers need to develop a system that encourages people to write down what they know and to get those documents into the electronic repository [. . .] In fact, the level and quality of employees’ contributions to the document database should be a part of their annual performance reviews [. . .] Incentives to stimulate knowledge sharing should be very different to companies that are following the personalisation approach. Managers need to reward people for sharing knowledge directly with other people.

### 7. Key HR challenges in Knowledge Management

In spite of the increasing significance of intellectual capital as a source of sustained competitive advantage, there are many challenges in aligning people practices within a knowledge culture. In many KM initiatives, an emphasis on people issues continue to be neglected while IT issues tend to dominate the agenda (Davenport and Prusak, 1998). Part of the reason for this unbalanced approach lies with HR practitioners who have been slow to seize the moment and make their mark (Storey and Quintas, 2001).

Thus one of the critical challenges is to realize the importance of focusing on people issues in knowledge organizations through strategic focus and ensuring line management participation.

The success of strategic HRM in the knowledge economy also depends on its ability to harness the potential hidden in the informal social architecture, including tacit knowledge, co-operation, informal learning, that emerge over a long period of time and are largely unplanned (Mueller, 1996). Sometimes, the informal culture may override the formal HR policy and therefore, both need to work together to produce desired results. Storey and Quintas (2001) identify five key HR challenges in the knowledge economy, namely, developing and sustaining a knowledge and innovation centric culture, accessing tacit knowledge, securing trust and commitment, handling non-traditional employees, and organisational vulnerabilities, such as changing balance of power, arising out of heavy dependence on key knowledge workers. Similarly, Currie and Kerrin (2003) believe that “employees’ unwillingness to share knowledge with others is crucial in determining the contribution HR practices can make to managing knowledge”.

In an organisational context, learning takes place at the individual, group and organisational level and HR can facilitate learning at all these levels (Rus-Eft et al., 1997). At the individual level, HR is entrusted with the responsibility of recruiting and retaining knowledge workers who can develop right competencies both in technical and behavioural areas. They need to be motivated through a range of performance management and reward measures to convert their expert mental models in to explicit knowledge. At the group level, HR needs to enable people to work in autonomous teams both within and outside organisational boundaries sharing mental models. At the organisational level, strategy, system, style and staff need to work in tandem to create a knowledge conducive learning atmosphere. By drawing on mental models of subject matter experts, explicit knowledge can be codified and transferred through training and development, in routine and non-complex work situations, HR can transform novice performance in to expert performance. Watkins and Marsick (1992) believe that “human resource developers who are systematically and developmentally increasing the learning capacity of the organisation are creating learning organisations”.

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Through right philosophy and systems, HR can play a leading role in KM, irrespective of whatever perspective on the concept of knowledge (Gourlay, 2001, p. 40). The challenge is to secure organisational commitment from knowledge workers to whom their profession comes first. Successful organisations are trying to meet the challenge by creating a learning environment that can quench their thirst for knowledge by building hubs of voluntary co-operation and treating people as “bundles of potentiality” (Handy, 1997) and not as costs to be reduced or assets to be controlled. Thanks to the knowledge economy, today HRM is seen to be a key competitive advantage by the senior management and taken seriously in strategic decision making. In fact, it is difficult to practice customer-centric strategic management without first achieving employee satisfaction.

8. Aligning HR systems in Knowledge Organizations

- Attracting and Retaining Talent:

In today’s dynamic and competitive business environment, the boundaries between employment, tasks, authority, markets and organizations are blurring and attracting and retaining employees emerges as a key challenge to cope with the same. The new economy expects a differing skill set from its employees encompassing emotional intelligence, self leadership, systems thinking, cross-cultural sensitivity and capacity to continuously embrace and adopt change. Organizations are increasingly using varied methodologies to emerge as the employer of choice.

In terms of selection, the more structured the interview process, the more is its reliability and validity (Fernandez-Aaroz, 1999). Extensive research suggests that a battery of selection techniques, such as general mental ability, integrity test, work sample tests and structured interview, rather than any single method alone, is the most successful way to select the best candidates for both entry level as well senior positions (Schmidt and Hunter, 1998).

It has been increasingly realized by organizations and cultures across the globe, that retention strategies, specially for knowledge workers require a judicious blend of financial rewards along with a clear focus on non-financial aspects such as employability, security of employment, autonomy, open culture, ownership of idea, social network and flexible working conditions.

- Training and Developing the Knowledge worker

Continuous up-gradation of skills and knowledge is an essential activity for professional and knowledge workers. In order to stay at the forefront of their professional fields they must be constantly aware of the developments within their specific disciplines and professions and they need to participate in activities that offer opportunities to further their own professional development (Robertson and O’Malley Hammersley, 2000).

Many researchers on KM take this as given, and do not devote considerable attention to it. However, Hansen et al. (1999) and Gloet and Berrell (2003) argue, that firms adopting codification strategies tend to hire undergraduates and train them in groups to be implementers, i.e. to emphasise knowledge acquisition, manipulation, and storage, including the focus on technology. Personalisation firms hire
graduates to be inventors, i.e. to use their analytical and creative skills on unique business problems, and to share and disseminate knowledge. Once on board, their most important training comes from working with experienced consultants who act as mentors. If one relates this to Argyris’s (1999) theory on single and double loop learning, then codification strategy focuses on single loop learning, while double loop learning is emphasised in personalisation strategy.

- **Optimizing employee and organizational performance**

Performance management identifies who or what delivers the critical performance with respect to the business strategy and objectives, and ensures that performance is successfully carried out (Roberts, 2001). Performance management systems can inhibit knowledge sharing, as much of the conflict between different functions can be due to the divergent objectives set out for employees in the performance agreements. The objectives are, moreover, often short-term and mostly measurable in nature. The opposite is the case in long-term developmental focus on performance management found in many knowledge intensive companies (Currie and Kerrin, 2003; Swartz and Kinnie, 2003). Finally, Gloet and Berrell (2003) emphasise that the KM strategies see effort, measurement and rewards differently. As a result, within the codification strategy, efforts associated with systems and technologies are more likely to be recognised and rewarded. Inside such a paradigm, key performance is related to technology, technology application and the volume of data. The personalisation paradigm focuses more on people, where key performance indicators are related to people and tacit forms of knowledge as well as the quality of data.

- **Creating an optimal Reward Management Strategy**

Reward systems indicate what the organisation values and shapes individual’s behaviour. Studies on knowledge workers have found that they tend to have a high need for autonomy, significant drives for achievement, stronger identity and affiliation with a profession than a company, and a greater sense of self-direction. These characteristics make them likely to resist the authoritarian imposition of views, rules and structures (Despres and Hiltrop, 1995; Herzberg, 1997; Horowitz et al., 2003) accordingly, mixtures of rewards are needed to motivate knowledge workers. These include: equitable salary structures; profit-sharing or equity-based rewards; a variety of employee benefits; flexibility over working time and location, as well as being given credit for significant pieces of work. For many knowledge workers it is as motivating to have free time to work on knowledge-building projects, going to conferences or spending time on interesting projects, as monetary rewards (Evans, 2003; Despres and Hiltrop, 1995).

It has already been noted that Hansen et al. (1999) has argued that the two KM strategies call for different incentive systems. Furthermore, it is worth recalling that Gloet and Berrell (2003) emphasise that within the codification strategy efforts associated with systems and technology are more likely to be recognised and rewarded, while the personalisation paradigm focuses more on people.
9. Implications for Managers:

The array of knowledge management products has been increasing in the past few years. This paper offers a framework for the practitioner to develop a conceptual understanding of knowledge management as a process and the relevance of its integration with business strategy. It not only helps the manager expand his understanding of knowledge management but also demonstrates significant thrust areas such as employee satisfaction, learning and effectiveness which drive business results.

Corporate executives and top management require evidenced justification for investment in Knowledge Management infrastructure. The practitioner needs to be able to link the corporate vision, resource availability and the culture of the organization to achieve desirable results and ensure that knowledge management and human resource management practices act as key enablers in realizing business outcomes.

Discussion and conclusion

The knowledge-based economy is a reality. Firms must build strategies to sustain competitive advantage by leveraging their intellectual assets for optimum performance (Turban et al., 2001)

Many organizations may not appreciate the strategic significance of their knowledge assets in building and maintaining sustainable competitive advantage. Organizations need to focus on creating well-developed strategic models that integrate knowledge methods, technologies and organizational forms to business strategy. Hence, future research could attempt to explore critically the circumstances and systems under which knowledge management and human resource management can create and sustain competitive advantage for organizations.

References


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