

## SUSTAINABLE COPMETITIVE ADVANTAGE THROUGH KNOWLEDGE MANAGEMENT: AN HR PERSPECTIVE

*Dr. Dharendra Kumar Tripathi*  
*(Asst. Professor - Management)*  
*Advance Institute of Management, Ghaziabad*  
*E-Mail: [dhiren\\_vns@yahoo.com](mailto:dhiren_vns@yahoo.com)*  
*Mobile: 09953320245*

### **Abstract:**

This is the era of globalization and in twenty-first century landscape; firm must compete in complex and challenging context that is being transformed by many factors from globalization, and increasingly rapid diffusion of new technology, to the development and use of knowledge. This new landscape requires firms to do things differently in order to survive and prosper. Specially, they must look to new source of competitive advantage and engage in new forms of competition. This requires a clear understanding of the nature of competition and competitive dynamics.

Knowledge Management plays a vital role to get sustainable competitive advantage in globalization era. This paper aims to address this important perspective with particular emphasis on sustainable development as an area of concern. One popular approach to understanding competitive dynamics is the resource based view of the firm. According to this view, the explanation for why some firms ultimately succeed and others fail can be found in understanding their resources and capabilities.

**Introduction:**

In the twenty-first-century landscape, firms must compete in a complex and challenging context that is being transformed by many factors, from globalization, technological development, and increasingly rapid diffusion of new technology, to the development and use of knowledge. This new landscape requires firms to do things differently in order to survive and prosper. Specifically, they must look to new sources of competitive advantage and engage in new forms of competition. This, in turn, requires a clear understanding of the nature of competition and competitive dynamics.

One popular approach to understanding competitive dynamics is the resource-based view of the firm. According to this view, the explanation for why some firms ultimately succeed and others fail can be found in understanding their resources and capabilities. A firm's resources and capabilities influence both the strategic choices that managers make and the implementation of those chosen strategies.

To understand why certain competitive strategies are more effective than others, one must consider the distribution of resources in competing firms. Although a given firm may possess more or less of any particular resource, only those resources that are rare, valuable, and difficult to imitate provide a sustainable competitive advantage. When the strategies employed are successful in leveraging the firm's rare, valuable, and difficult-to-imitate resources, that firm is likely to gain an advantage over its competitors in the marketplace and thus earn higher returns. Competitive advantages that are sustained over time lead to higher performance. These arguments are somewhat clear when we consider tangible resources such as buildings, machinery, or access to capital. And in the more traditional competitive landscape, these tangible resources were the most important potential sources of competitive advantage. Thus, if a firm could modernize its plant, or develop a more efficient distribution process, or access cheaper credit, it could compete successfully and prosper. But firms employ both tangible and intangible resources in the development and

implementation of strategies, and as the nature of work and competition changes, intangible resources are becoming more important. Examples of intangible resources are reputation, brand equity, and—for our purposes the most important of these— human capital. In fact, in any competitive landscape it has been argued that intangible resources are more likely to produce a competitive advantage because they often are truly rare and can be more difficult for competitors to imitate.

Any organization that seeks a competitive advantage through human resources thus must both acquire the “right” resources and take the steps required to leverage them. Generally speaking, human capital is more mobile than other intangible resources. Therefore, it may seem an unlikely source of sustained competitive advantage. Once an organization integrates human capital with other complementary resources and uses this integration to create organizational capabilities (that is, leverages them), losing one or a few individuals may not lead to a loss of competitive advantage. Instead, a competitor would have to gain access to all of the resources and the system in place to leverage those resources. Thus, human capital is now seen as one of the most important sources of competitive advantage.

### **Human Capital as a Strategic Resource**

Human capital is a general term that refers to all of the resources that individuals directly contribute to an organization: physical, knowledge, social, and reputation. However, we need to understand what it is about human capital resources that helps individuals contribute to gaining and sustaining a competitive advantage. During the industrial age, human capital was valued because of physical resources such as strength, endurance, and dexterity— these were the aspects of human capital that were most likely to lead to competitive advantage. But as new machinery and technology were introduced, these characteristics became less important.

In the current economic landscape, human capital is more likely to be valued for intellect, social skills, and reputation. In the more dynamic environment, managing knowledge

based resources, or intellectual resources, became the key. In today's competitive environment, where there is even more uncertainty and dynamism, these knowledge-based resources are even more important than they were in the past.

The term knowledge-based resources refer to skills, abilities, and learning capacity. People can develop these through experience and formal training. Social resources (now sometimes referred to as social capital) include the personal relationships that bind together members of an organization as well as relationships that link organizational members to other external sources of human capital. Through social capital, individuals can gain access both to other human resources (the physical and intellectual capital, for example) and to other forms of capital (financial, for example). Reputational capital is less personal. Often it accrues through associations with prestigious organizations. For example, people with degrees from the more respected educational institutions have greater access to valued resources simply because of the reputation of their alma maters. We must emphasize again, however, that it is not enough to acquire individuals who have such attributes. It is also necessary to develop structures, systems, and strategies that allow the organization to exploit the resources and gain competitive advantage. For example, a football team that acquires a strong passing quarterback only gains a competitive advantage when it shifts its offensive strategy to focus on passing. Professional baseball teams often have groundskeepers cut the grass closer (or not) depending on whether the team currently includes players who tend to hit ground balls into the infield. In these ways, the teams leverage their resources to gain an advantage. Professional service firms leverage their human capital by forming project teams led by senior experienced professionals, often partners in the firm. The other members of the project teams usually are younger, less experienced associates. In this way, they leverage their most valuable human capital to complete projects for clients. Working together on the project also allows the associates to

gain some of the tacit knowledge possessed by the more senior partners; they learn by doing.

There has been little concern with how to integrate them into an overall strategy that would enable a firm to leverage the resources it acquires or develops. Furthermore, psychologists have been primarily concerned with improving individual performance, and more recently, work group performance. They assume that improving performance at these levels will lead to improvement at the organizational level, but this assumption is seldom tested. For example, psychologists have recommended hiring “better” employees, which often means employees with greater intellectual or knowledge resources, but mostly because these employees could be expected to perform their jobs with greater proficiency. The assessment of performance has been almost exclusively at the level of the individual or the team, and which individual has paid little attention to the processes or structures or team-level performance could be translated to organizational-level performance or competitive advantage. Utility analysis has allowed the fields of human resource management to demonstrate further how these increases in performance can be expressed in real dollars. Usually, work in this area calculates the value of human resource practices rather than the value of the human resources themselves. We also want to focus attention on a specific but very important subset of human capital resources: knowledge-based resources. As noted earlier, in the new competitive landscape knowledge-based resources are the most critical for gaining sustained competitive advantage. We also believe it is important for psychologists/HR Managers to appreciate that organizations do not achieve and sustain a competitive advantage simply by possessing knowledge-based (or any other unique) resources. The firm must effectively manage those resources in ways that allow it to leverage and exploit them. *Capabilities* refer to a firm’s ability to integrate and deploy its resources to achieve a desired goal. **Knowledge-Based Resources**

Knowledge-based resources include all the intellectual abilities and knowledge possessed by employees, as well as their capacity to learn and acquire more knowledge. Thus, knowledge-based resources include what employees have mastered as well as their potential for adapting and acquiring new information. For several reasons, these resources are seen as being extremely important for sustaining competitive advantage in today's environment. First, the nature of work has been changing over the past several decades, so that many jobs require people to think, plan, or make decisions, rather than to lift, assemble, or build. This kind of work requires both tacit and explicit knowledge. Psychologists and HR specialists have also been successful in identifying an individual's potential to learn specific material through the use of aptitude tests. Furthermore, these groups have been adept at designing training programs that provide employees with the knowledge they presently lack (assuming they have the aptitude to learn). But work continues to change, and in unpredictable ways. It is often difficult to state exactly what kinds of knowledge a person needs to succeed on the job, and it is almost impossible to predict what types of knowledge he or she will need in the future. Change and unpredictability in organizations mean that knowledge-based resources such as the ability to learn and personality traits such as adaptability are extremely important, and some organizations have begun rewarding employees financially when they demonstrate an ability to acquire and master new knowledge.

Still, it is not enough to select employees who have knowledge resources, or even to help them to acquire such resources by providing training or offering rewards for increasing their knowledge. Organizations must also find new ways to leverage these resources to gain competitive advantage. For example, the literature includes a fair amount of work describing the resources that must be available to teams in order for them to be successful. Some studies have examined the resources that should be possessed by the team as a

whole, such as expertise, collectivism, and flexibility, whereas others have focused on individual resources, such as general mental ability and conscientiousness. An organization might select highly conscientious individuals or train a team to develop more collectivist values, but neither of these routes would lead to sustained competitive advantage. Competitive advantage is gained only when the organization selects or develops these resources *and* structures work tasks and the reward system in ways that motivate the team to perform well and thereby contribute to organizational effectiveness. Team effectiveness may be enhanced through selection and training, but competitive advantage comes only when the organization structures rewards and work to leverage those effective teams to improve organizational performance.

#### **Acquiring Knowledge-Based Resources**

Although selection and training (or development) is reasonable means by which to acquire knowledge-based resources, they are time consuming and may be inefficient. For example, to select a number of highly intelligent employees an organization would have to convince a large number of such employees to apply for available jobs. Assuming the organization could then identify the “most” intelligent among the applicants and make offers to these individuals, it would then be necessary to convince them to accept these jobs. Developing needed competencies may not be simple either. The development of some specific knowledge-based competencies may actually require that employees possess other abilities or characteristics (for example, aptitudes) that are absent in a firm’s current workforce. Fortunately, there are other ways for a firm to acquire valuable resources, such as with mergers, acquisitions, and strategic alliances.

Firms frequently acquire or merge with other firms in order to gain access to new products or other specialized knowledge. Merger and acquisition (M&A) targets are often chosen because of their complementary resources and knowledge bases. Alternatively, a firm may

decide that a permanent relationship with the target firm is not desirable. For example, there may be a special project that requires knowledge resources not available to the firm but that are available elsewhere. Although it might be possible to acquire or merge with the other firm, the project, and therefore the need for those resources, may have a limited time horizon. In such cases, instead of forming an entirely new entity or acquiring the new firm, a firm may decide simply to form a strategic alliance, such as some type of joint venture. In either case, however, the goal is to acquire (even if temporarily) the valued resources of the other firm; partners are chosen in much the same ways as targets for mergers and acquisitions

Acquiring knowledge from external sources and internalizing it can be difficult. Internalizing new knowledge requires adequate *absorptive capacity*, or the ability to identify, assimilate, and use additional knowledge. Normally, individuals or groups cannot “absorb” additional knowledge that is too different from their current knowledge base because they cannot identify or understand it. Thus, firms that engage in M&A activity can benefit by developing their capability for assessing the extent to which the other firm’s knowledge base is similar or complementary to their own. They can also benefit from developing routines to integrate new knowledge. For example, some firms have special units that identify new valuable knowledge in the organization and then find ways to diffuse (communicate) it throughout the organization. As is true for any method of acquiring knowledge resources, this method has its own challenges. Issues of culture clash and the inability of employees to adapt to new ways of doing things are serious threats to the effectiveness of this approach to acquiring knowledge-based resources.



### **Aggregating Knowledge-Based Resources**

Whatever resources are acquired, no matter the manner in which they are acquired, they need to be aggregated to the highest level of use or application. That is, if a firm acquires individual-level knowledge resources through selection or training, it must find a way to “leverage up” those resources to the team level and eventually to the organizational level. Even if a firm acquires a special expertise through a merger, it is necessary to diffuse that expertise throughout the entire organization. Otherwise, the effects of these knowledge-based resources on competitiveness will be limited. This problem is the same one facing scholars interested in relating human resource practices to firm performance. For example, if hiring “better” people results in higher productivity, how exactly does the selection of individuals translate into improved organizational performance? The performance improvements that come with each new person hired do not simply add up to greater productivity and competitiveness. Several scholars have proposed models to explain how individual performance is transformed into team and eventually firm performance, but there is little empirical documentation on the validity of these models.

Empirical work on the processes through which firms aggregate and leverage the knowledge-based resources of individuals to create a competitive advantage also is scarce. Nevertheless, it seems reasonable to assert that leveraging individuals’ knowledge requires an organization to develop systems and processes by which individuals who have the critical knowledge transmit this information to others in the organization who can use it. In addition to implementing structures for effective communications, organizations must encourage employees to try new ideas. A recent study (Edmondson, 1999) demonstrated the importance of a supportive climate for increasing creativity and innovation in organizations. Employees are not likely to disseminate their knowledge and try to leverage it if they are afraid of failing. Organizations must make employees feel that it is safe to fail

before effective knowledge transfer and innovation will occur. Cultures and climates that clearly signal the value of knowledge sharing and communication contribute to a firm's ability to leverage its knowledge-based resources. Indeed, Pfeffer and Sutton (2001) view this as one of the most important aspects of leadership, noting that a leader's task "is to help build systems of practice that produce a more reliable transformation of knowledge into action". It is suggested that successful companies have management practices that create an environment and culture "valuing the building and transfer of knowledge". When a firm combines its knowledge resources with management practices such as these, it creates the knowledge-based capabilities it needs to compete successfully in a knowledge-intensive economy.

### **Knowledge-Based Capabilities**

Strategic capabilities refer to those systems or processes that an organization creates to leverage its resources to produce a competitive advantage. In the context of knowledge-based resources we have discussed issues relating to the acquisition or development of these resources and ways in which we can carry these resources up to higher levels of analysis. Increasingly, knowledge-based capabilities are recognized as among the most strategically important capabilities for creating a sustainable competitive advantage. Proponents of a knowledge-based approach to competitive advantage argue that the primary purpose of a firm is to create and apply knowledge.

Two important types of knowledge are tacit knowledge and explicit knowledge. *Tacit knowledge* is grounded in experience and difficult to express through mere verbal instruction; individuals know it but cannot articulate it. Because tacit knowledge is difficult to codify, it is passed along to others through direct experience. Therefore, it is sometimes termed *subjective knowledge*, *personal knowledge*, or *procedural knowledge*. *Explicit knowledge*, in contrast, can be formalized, codified, and communicated. Explicit knowledge has also been referred to as *objective knowledge* and *declarative knowledge*.

Explicit knowledge is often gained through formal education and training programs, but it can also be gained through experience on the job. Indeed, an important objective of many electronic information-sharing systems is to ensure that the organization captures the explicit knowledge that employees gain through their experience on the job. However, it must be emphasized that some of the experience may entail explicit knowledge that can be transferred in this way, but other experience produces tacit knowledge that cannot be transferred in this way.

### **Research and Development**

World-class research and development activities (R&D) represent a knowledge-based capability that serves as a competitive advantage for firms pursuing innovation. The primary intent of R&D is to develop new ideas about products, processes, or services. Both knowledge and social capital contribute to the success of R&D efforts. Innovations often build on cutting-edge knowledge. To convert such knowledge into important innovations usually requires individuals in the organization to combine the knowledge with an understanding of the market, collectively use the results of the research to build a new product, and then work to commercialize it. Thus, the ability to combine existing knowledge to generate new applications and exploit the unrealized potential of existing knowledge is another knowledge capability that can contribute to a firm's ability to achieve sustainable competitive advantage.

### **Organizational Learning**

Miller (1996) defined organizational learning as the acquisition of knowledge by individuals and groups who are willing to apply it in their jobs in making decisions and influencing others to accomplish tasks important for the organization. Whereas a single instance of organizational learning (that is, a single change event) may be relatively easy for other organizations to imitate, *continuous* organizational learning has cumulative effects that are much more difficult to imitate. Thus, continuous learning is an important

capability that can serve as a source of sustainable competitive advantage. As a result, many highly competitive organizations now invest in developing the capability for continuous organizational learning.

Training and development programs are commonly used to promote organizational learning. Such programs seek to increase the knowledge capital, and to a lesser extent, the social capital of employees. Most training and development programs focus on ensuring that employees have the most up-to-date, explicit knowledge in their respective areas of specialization. Because explicit knowledge is well known, programs for its dissemination can be easily imitated. Although it is necessary to maintain competitive parity, explicit knowledge usually cannot serve as the basis for a sustainable competitive advantage. But tacit knowledge is not easily disseminated. Using it must learn tacit knowledge, and this often requires extended periods of social interaction. Because tacit knowledge is learned by experience, the transfer of such knowledge is generally a slow and complex process. Thus, management practices aimed at leveraging tacit knowledge are more difficult for outsiders to understand and imitate successfully. A strategic alliance such as a joint venture can be useful for transferring tacit knowledge because it allows partners' employees to get close enough to transfer tacit knowledge. Another approach to transferring tacit knowledge is to assign more experienced professionals to lead a team of less experienced professionals. Over time, the less experienced professionals learn the more experienced professionals' tacit skills. Organizations with significant learning capabilities understand the importance of both tacit and explicit knowledge and are able to ensure that both types of knowledge are used to promote learning.

### **Knowledge-Based Competition and Psychology**

We believe that competing on the basis of knowledge will be critical for organizational success in the coming years. Although many of the activities that organizations can use to enhance and leverage their knowledge resources occur at the level of individuals and work

teams, organizational effectiveness also requires developing organizational capabilities for leveraging and exploiting knowledge. Psychologists can help firms achieve a knowledge-based competitive advantage in several ways. First, many programs initiated at the strategic level are designed to affect individuals. Psychologists can contribute, then, by providing models and theories of how these programs are likely to influence the behavior of individuals and groups. Second, Psychologists can examine how traditional psychological interventions may be used to increase the knowledge resources of the organization. Third, Psychologists can help design organizational programs and systems that help firms leverage and exploit the knowledge they hold.

A merger or acquisition is a strategic action that is not likely to succeed unless it is implemented in a manner that ensures individual employees behave as anticipated. As noted earlier, mergers and acquisitions do not guarantee that a firm's knowledge will increase. Although the knowledge of the acquired firm becomes the property of the acquirer, knowledge resides primarily in individuals, making it quite mobile. Thus, controlling turnover can be critical for successful knowledge acquisition and future learning. Even if all the human capital is retained, problems of integrating the acquired firm into the acquiring firm also can create barriers to learning . For example, different compensation systems for managers in the two original firms can lead to jealousy and hinder cooperation between managers of the two firms. Thus, expertise about how to design compensation systems that encourage collaboration can also be useful to firms that need to retain knowledge resources after a merger or acquisition.

Human capital may be important in firm expansion strategies. For example, firms that desire to expand their operations into new geographic locations can use the social capital of key employees through their relationships with customers and suppliers. Professional service firms may open offices in new cities where their current customers have operations. In so doing they can more effectively serve their current customers, but they can also use

their current customers to identify and serve new customers. They may use their current employees to manage the new office and social contacts to hire new professional employees to staff the new office. Finally, they expand the use of their top employees' knowledge in serving customers in the new geographic regions. For example, it is becoming increasingly common to use contract workers instead of permanent employees, in part because of the economic flexibility associated with this approach. Employing contract workers provides access to needed skills but does not commit a company to the costs and obligations associated with hiring permanent employees. But because contract workers only provide their knowledge to the firm for a limited time and often receive no incentives to help others learn their skills, usually very little organizational learning occurs. In fact, it may be to their disadvantage to help an organization learn the knowledge they hold unless they are given special incentives to do so.

There are numerous ways in which psychologists might contribute to a firm's capability to gain a sustainable competitive advantage by more effectively leveraging its human capital and developing its knowledge capabilities. In fact, there have been some attempts to describe, in general terms, how outcomes might result. But there are many other possibilities as well. For example, performance appraisal and performance management systems can be designed to encourage employees to learn and share their knowledge with others. The organizational culture can be developed to encourage innovation and learning. Selection systems can be built to assess tacit knowledge and learning capacity effectively. The purpose of this volume is to stimulate additional thinking, new research efforts, and the sharing of practical experiences relevant to the intersection of knowledge-based competition and psychology.

### **Developing and Motivating Employees for Knowledge-Based Competition**

The development of new knowledge requires creativity. Behavioral scientists explore several mechanisms that facilitate the sharing of creative ideas in the organization. They

present and explain a theoretical framework that suggests how personal and contextual conditions influence creativity and the sharing of creative ideas. They effectively explain that ideas must be made public and available to others in the organization if they are to contribute substantially to organizational knowledge and thereby to performance. They explore several potential contextual effects on the development and sharing of creative ideas, such as employee mood states (positive and negative), job complexity, performance goals and deadlines, supervisor and coworker support, along with the physical configuration of the workspace.

The newer organizations need reward systems that emphasize development of new knowledge, transmission of that knowledge, and use of that knowledge to develop and improve products and services. In short, it is suggested that the reward system needs to attract and retain individuals with the right knowledge, motivate individuals to learn what is critical for gaining a competitive advantage, and motivate individuals to develop and use knowledge that helps create that competitive advantage. It is argued that job-based pay has several risks and suggests that skill-based pay is more effective in promoting knowledge management. It is believed that skill-based pay is particularly effective in situations where multiple skills are needed but may not be used all the time. This is because it is important that the skills be available for use when needed and thus represent a critical asset for the organization. Furthermore, individuals with multiple skills often can work on multiple projects simultaneously.

Although it is important to retain knowledge workers in order to retain knowledge, these workers are likely to be more mobile than many other competitive resources. The key issue is that firms must take positive actions to retain their technical professionals in order to retain the knowledge they hold. This is critical to managing knowledge in these organizations.

**Conclusion**

Undoubtedly, it is the great challenge before human resource professionals to build HR systems and processes to facilitate knowledge management in organizations. It is clear that organizations will need to acquire, develop, and use knowledge-based resources if they are to gain competitive advantage in the future. It is a long term planning, which requires a strategic and deliberate organizational value that can foster the sustainable growth in competitive arena by means of knowledge management. However, we need to understand what it is about human capital resources that helps individuals contribute to gaining and sustaining a competitive advantage.



## References

- Amit, R., & Schoemaker, P.J.H. (1993). Strategic resources and organizational rent. *Strategic Management Journal*, *14*, 33–46.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*, 99–129.
- Barney, J. B. (2001). Is the resource-based “view” a useful perspective for strategic management research? Yes. *Academy of Management Review*, *26*, 41–56.
- Baron, J. N., & Kreps, D. M. (1999). *Strategic human resource: Frameworks for general managers*. New York: Wiley.
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, *83*, 377–391.
- Black, J. A., & Boal, K. B. (1994). Strategic resources: Traits, configurations, and paths to sustainable competitive advantage. *Strategic Management Journal*, *15*, 131–148.
- DeCarolis, D. M., & Deeds, D. L. (1999). The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strategic Management Journal*, *20*, 953–986.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*, 350–383.
- Guzzo, R. A., & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 3; 2nd ed.; pp. 269–313). Palo Alto, CA: Consulting Psychologists Press.

**Author's Profile:****Dr. D.K.Tripathi****Qualifications:**

- ❖ Ph. D. (HRM), from 'Mahatma Gandhi KashiVidyapeeth, Varanasi) in 2005.
- ❖ Master of Personnel Management & Industrial Relations form "BHU" in 2001.
- ❖ NET/UGC for Lectureship (HRM) in 2001.
- ❖ M.Sc. (Electronics) from 'Purvanchal University in 1998.
- ❖ B.Sc. from 'Purvanchal University in 1996.

**Experience:** 7 Years of Teaching experience in 'UP Technical University's Colleges.**At Present:**

Asst. Professor and HOD – MBA Department in Lord Krishna College of Engineering, Ghaziabad.