

Knowledge Management in Organizations:

Technologies, Cultures, and People

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**Abstract**

Research and development, innovation, and managing knowledge are just a few of the many challenges facing companies in the 21<sup>st</sup> century. The purpose of this paper is to demonstrate that the interaction between technology, organizational cultures, and people can allow an organization to sustain its knowledge effectually. In this paper, we will look at the challenges and strategies of creating a strong knowledge base whereby an organization can withstand its competitive advantages and improve its employee performance in a knowledge economy.

*Keywords: knowledge management, technologies, performance, organizational culture, people*

### **Knowledge Management - The Challenge**

Knowledge Management is a concept and a term that began to surface about 20 years ago. As Davenport stated: "Knowledge management is the process of capturing, distributing, and effectively using knowledge" (Davenport, 1994, p. 119).

Later, the Gartner Group produced a more functional definition of knowledge management, which is perhaps the most frequently cited one: "Knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets" (Duhon, Gartner Group, 1998).

Since knowledge management is defined as the creating, archiving and sharing of valued information, from expertise and insight within a community or organization, a natural progression began as organizations wanted to build competitive advantage to protect their interest. Thus, knowledge management became historically associated with managing the knowledge of and in organizations. Another way it is conceptualized is getting the information (or content) from people who have it to people who need it (Reiser, 2012).

A majority of large companies, public institutions and non-profit organizations have started committing numerous resources to internal knowledge management efforts, often as a part of their business strategy, information technology, or human resource management departments (Addicot et al, 2006). As a result, there is an endless supply of consulting companies that can provide strategy and advice about knowledge management.

According to InnoCentive Consulting, as a consequence of the times, "successful 21<sup>st</sup> century organizations require better, faster, and more cost effective ways of solving problems and innovating to both drive business growth and spread risk." A number of organizations believe that

by focusing exclusively on people, technologies, or techniques, they can manage knowledge and avoid risk. However, an exclusive focus on people (talent), technologies, or techniques separately does not empower an organization to sustain its competitive advantages (InnoCentive Consulting website). Because of this, many companies have had to adjust their knowledge management approaches to support all three.

Netflix boasts that it's the world's leading Internet television network with over 48 million members in more than 40 countries providing more than one billion hours of digital media per month. Therefore, it is no surprise that Netflix has experienced knowledge management challenges. According to experts at Wharton, Netflix is now in a race to transition to a business "model focused on streaming content online, while continuing to exploit its current model based on the DVD distribution via the U.S. Postal Service" (Wharton, 2009). Peter Fader (Wharton marketing professor) stated that is likely "that Netflix would be entrenched in its old model and fighting off digital distribution, but it is embracing the future" (Wharton, 2009).

However, Netflix faces intense competition from companies ranging from Apple with its iTunes service, which rents movies online, to Blockbuster and the most recent upstart called Redbox. In regards to its DVD rental business, Netflix's video streaming model is under fire from powerful rivals (Wharton, 2009). The most significant among these is YouTube, now part of Google's mighty empire, where one can stream content for free which competes directly with Netflix's "Watch Instantly" service (Wharton, 2009).

Netflix is a prime example of how knowledge can be successfully managed by creating innovative techniques for distribution. Netflix is striving to maintain the balancing act between using new technology with old. However, Netflix's challenge is to utilize relevant types of new

technologies and to try to stay ahead of the heavy competition. From streaming video to physical DVDs, Netflix has still triumphed in tying its technology and its people together (Stewart, 2013).

### **Types of Knowledge Important to Corporations**

Research suggests that knowledge is a product of the human intellect (De Long, 2000; Grover & Davenport, 2000; Nonaka, 1994; Sunassee & Sewry, 2002) and can be classified as either explicit or tacit. Therefore, it is no surprise that human intellect is part of the main reason that knowledge is captured. While explicit and tacit are the most common ways of classifying knowledge, in most organizations, knowledge is divided into four kinds: “explicit, tacit, common and undiscovered” (Reiser, 2012, p. 158).

- Explicit knowledge is found in: databases, memos, notes, documents, etc. (Frost 2013)
- Tacit knowledge is found in: the minds of human stakeholders. It includes cultural beliefs, values, attitudes, mental models, etc. as well as skills, capabilities and expertise (Frost 2013).
- Common (or organizational) knowledge: explicit knowledge that everyone needs to know about, and actually are aware.
- Undiscovered (embedded) knowledge: Information that is the hardest to find, not immediately apparent whether buried in thousands of emails or simply unaware it exists but would benefit the organization if it was explored and exposed.

Regardless the type or use of knowledge, the “heart of what knowledge management is supposed to do: make information known and available to all who need it” (Reiser, 2012, p. 159). For Netflix, their competitive edge was leveraging several types of knowledge use and succeeded

to gain advantage in the market before their competition. Netflix raised its stock from just under “\$10 per share in 2002 to a peak of nearly \$300 in 2011 - whereby distinguishing itself as a market leader by successfully integrating new Internet technologies into the video rental business (Netflix, Inc., 2012).” Thus, that advantage proved a success for them and an on-going ambition for every organization or business.

### **Application of Knowledge Management**

There are many factors that will either make or break a new knowledge management system. Therefore is it very important to identify the success factors needed to implement a new process, system or procedure. Initially, there must be contribution and support from the top down. This starts with the members and stakeholders being engaged and willing to contribute. The “most important failure factor is the lack of willingness of users (members) to contribute to the knowledge management efforts... knowledge sharing depends on organizational culture and its ability to foster reciprocity, openness, and trust (Frost, 2014).” So, in order for an implementation to be successful, the members of the organization and the information must be in alignment for success. The success is directly tied to relevant knowledge use, techniques and easy of application for the employees.

Implementation must include proper technical infrastructure, must meet the needs of the user and the system must be able to handle the demands placed on it. “Achieving implementation success depends on the alignment with organizational processes and culture (Frost, 2014).” To sum it up, the people, techniques and tools must be aligned and supported through the process for a successful implementation.

### **Strategic Tools in Knowledge Management**

The basic concept of a knowledge management strategy is “simply a plan that describes how an organization will manage its knowledge better for the benefit of that organization and its stakeholders. A good knowledge management strategy is closely aligned with the organization’s overall strategy and objectives (Office of Head Start 2012).”

A knowledge management strategy is driven by technologies, techniques and the people within an organization. The technologies used for knowledge management systems include many types of documentation and retrieval systems. These systems include call centers, customer relationship management (CRM), ecommerce, government, human resources, information technology IT, partner-supplier relationship, professional services (consulting), sales, and training programs (Reiser, 2012, p. 161).

It is widely accepted that the success of knowledge management systems relies on the technology combined with human interaction to encourage knowledge capture and transfer between individuals (Birkinshaw, 2001; Coles, 1999; Davenport & Prusak, 1998; Dawson, 2000; Manchester, 1999; Min & Yoon, 2002; O’Dell & Grayson, 1998; Roberston & Hammersley, 2000; Sunassee & Sewry, 2002). The human element of knowledge management must be based on trust and sharing. This includes incentives, such as financial rewards, or a mutual exchange of knowledge to be present to motivate knowledge contribution (Bertels & Savage, 1998, p.18; Birkinshaw, 2001; Gibbons & Wright, 1999; Grover & Davenport, 2000; Markus, 2001; Min & Yoon, 2002; Nonaka, 1994).

Research has identified if an organization can measure its economic value of knowledge use via its people, technology and techniques, this measurement can provide a way to assess an

organization's ability to manage its knowledge effectively (Allee, 1997). In comparison to the Performance Pyramid, this same type of measurement can be used to evaluate a direct link between motivation for technology usage and the employees' ability to embrace technology (Wedman, 2009). The ability of the employees to utilize the knowledge of an organization increases its credibility and salability. Therefore, improving employee performance increases economic advantage.

“Improving performance can be as challenging as unlocking the secrets of the ancient pyramids. If you only had a blueprint of the pyramid, you might have a chance (Wedman 2009).” Since performance is linked to the human element of an organization, it is very important to understand how this ties to economic value. In order for the employees of an organization to be successful, they must be engaged and educated for their work. The Performance Pyramid helps identify the significant factors that are required. These include the ability to analyze the knowledge and skills of the employees, performance capabilities, motivation, understanding and working knowledge of the tool(s) of an organization, expectation/feedback channels and rewards/incentives of employees. All these must be considered to fully understand and evaluate the overall health of an organization and employee performance.

According to Wharton experts, the same strategies have “helped Netflix maintain its lead and fight for the effects of technology attrition” (Wharton, 2009). Since Netflix is focused on its community, this really improves the user experience (Wharton, 2009). This has established a strong relationship with its subscribers. Because of its subscription model and a focus on ease of use (technologically speaking), the company makes consumers less likely to jump ship and the motivation to remain loyal (Fader, 2009).

### **Obstacles to Implementing a Knowledge Management Strategy**

There are many obstacles for implementing knowledge management strategies. The primary one is trust. If an organization has not created a culture of trust, there will be no basis for knowledge sharing (Clemson, 2002). The Performance Pyramid also supports that if the organizational culture does not build trust, the employees of an organization do not have motivation to support a new system or strategy.

Another obstacle is not providing the employees of an organization with the knowledge or skill set to achieve a new strategy. A transition to any new system or strategy must be supported by its leaders and the techniques needed must align with the capabilities of its employees to be to handle the new demands (Wedman 2009).

In the case of Netflix, their “continuing push into digital distribution and streaming video was sensible, but they used cautions so that the transition in business models would be gradual. (Wharton, 2009). In order to not make Netflix vulnerable, their strategy must align with the demands of the system and its users or it might fail.

### **The Future of Knowledge Management**

Most organizations have now recognized the importance of innovation for ensuring long-term growth. This is particularly true in fast-moving industry sectors such as IT, consulting, telecommunications and pharmaceuticals (Frost, 2014). Most organizations, however, are only constructed to ensure consistency, repeatability and efficiency of current processes and products. Innovation does not tend to get attention with this type of focus. Organizations may think they need to try unfamiliar techniques to encourage and drive innovation which can result in high risk and failure.

However, nowadays, a majority of employees have instant access to information and data that is readily available at their fingertips. Since knowledge managements systems have evolved to also be contextual based on the user (Netflix as one example), the future of knowledge is how it correlates in real-time to all systems. Ultimately, it allows users too quickly and easily access information and employees to make recommendations on behalf of a company. This will continue to be the future of knowledge management.

Finally, since there has been considerable work in the knowledge management field regarding the process of innovation, and how to nurture it in a business environment, most organizations can now hire consulting companies with extensive experience to help companies transform (Frost 2014).

### **Conclusion**

The purpose of knowledge management is to help an organization to align its goals with its technologies and its employees. A knowledge management strategy is what defines the goals and outlines what is needed for organizational change. In order to create a solid strategy, it is important to understand what the organizational goals are and how the organization is performing against them (Office of Head Start 2012). This involves examining an organizations culture, technologies, techniques and employee performance.

Understanding knowledge management is not an easy task because it is not a one-size-fits-all solution. Knowledge management requires understanding the overall challenge of knowledge management, an organizational culture and its technological applications. It involves activities that are essential for building a culture of sharing and trust for its employees. Ensuring that employees know their value and are capable of performing will support the sharing of the

organization's knowledge. The knowledge management strategy must also evaluate its technologies and techniques to verify if the organization has the right tools for the right job and roles.

When the knowledge management system is in place and vetted, it provides opportunity for organizations to keep their competitive advantage and a culture of trust and inclusion for its employees. This, in turn, benefits the economic advantage of the organization.

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