Small Business Transformation Through Knowledge Management

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INTRODUCTION

In the last decade, the importance of knowledge as a source of sustainable competitive advantage has gained widespread acceptance. Business practitioners and academics alike recognize that what is "between the ears" (Tiwana, 2000) of their employees represents the source of creativity and innovation that nourishes and sustains the organization. Furthermore, the ability to harness the intellectual capital in an organization probably represents the most important aspect relating to the creation of an intelligent enterprise.

However, most research on the topic of knowledge management (KM) and intellectual capital has focused on larger organizations. Because small businesses account for a major portion of the total number of businesses, jobs, and growth in many world economies (Wong & Radcliff, 2000), it is important to understand the impact of knowledge management on small businesses as well. We need to understand the correlation between knowledge management practices, the ability of a small business to transform itself into an intelligent enterprise and any resulting performance or competitive improvements KM may provide.

Because a "build it and they will come" approach to knowledge management usually does not work, this article discusses and integrates the concepts of adoption and diffusion of innovations with knowledge management theories to help transform a small business into an intelligent enterprise. The ultimate goal of this chapter is to provide small businesses with some consistent theories and practices that may help improve their competitiveness in a turbulent world.

KNOWLEDGE MANAGEMENT IN SMALL BUSINESS

What is Knowledge Management?

Karl Wigg is credited with coining the term "knowledge management" (KM) at a 1986 Swiss Conference spon-sored by the United Nations International Labor Organization. He defined KM as "the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge-related effectiveness and returns from its knowledge assets" (Wigg, 1999). Thus, KM represents an organization's ability to capture, organize, and disseminate knowledge to help create and maintain competitive advantage. It is becoming widely accepted as a key part of the strategy to use expertise to create a sustainable competitive advantage in today's business environment. It enables the organization to maintain or improve organizational performance based on experience and knowledge. It also makes this knowledge available to organizational decision-makers and for organizational activities (Beckman, 1999; Pan & Scarbrough, 1999). Therefore, we can assert that knowledge management represents a key strategy in creating and sustaining an intelligent enterprise, capable of outperforming its competitors.

Using KM in Small Business

Why is it important for small businesses to use knowledge management to become "learning organizations" or "intelligent enterprises"? According to Wong et al. (1997), "Many of the factors which have promoted the growth of SMEs also require their managers to acquire new skills. In fast-growing small firms, the management team will be constantly developing and the skills needed will change as both cause and effect of the development of the firm itself." The bottom line is that for a small business to succeed and thrive in a changing world, it must continually learn and adapt better and faster than its competitors. Knowledge management provides the tools and strategies to achieve this (Anderson & Boocock, 2002).

Guimaraes (2000) further suggests that small businesses face greater pressures from chains owned by large corporations, increased regulations and politics, and greater competition due to increasing business globalization. He asserts that innovation, facilitated by knowledge management, may be the key to their survival and success in difficult times. Chaston et al. (2001) support this view

in their statement: "Organizational learning [knowledge management] is increasingly being mentioned in the literature as a mechanism for assisting small firm survival". It is "the most effective and practical way through which to increase Small and Medium-Size Enterprise (SME) sector survival rates during the early years of the new millennium". They contend that by assisting employees and facilitating their learning and knowledge sharing, they can creatively develop new products, better and more efficient processes, and identify new ways of building better relationships with customers. Thus, it appears that knowledge management techniques of acquiring, sharing and effectively using knowledge may represent a crucial means of transforming a small business into an intelligent enterprise, resulting in improved performance by facilitating innovation, idea creation, and operating efficiencies.

Influence of Adoption and Diffusion

How do adoption and diffusion factors influence KM in small businesses and their goal of becoming an intelligent enterprise? By understanding factors that facilitate the adoption and diffusion of innovations, small businesses may improve their chances of success in a knowledge management initiative. Based on many years of adoption and diffusion of innovations research, Rogers (1995) developed a model often considered the foundation for the adoption and diffusion of innovations. We include strategies and processes in the definition of "innovations" in the context of this chapter. This model proposes three main elements influencing the adoption and diffusion of innovations, including: the innovation, communication channels, and social systems.

Based on the research of Rogers and others, the factors that appear to significantly influence adoption and diffusion include the relative advantage of an innovation (the degree to which the innovation is perceived as better than what it supercedes), which is positively related to its rate of adoption and continued and effective use and the influence of culture and social systems. The social systems similarly influence people's attitudes and willingness to adopt new processes or technologies. Finally, communication channels such as mass communication and interpersonal channels have been found to be effective promotional avenues to facilitate the successful awareness and use of a new process or technologies. Other studies propose that technological change within organizations represents a cumulative learning process where firms will seek to improve and diversify their technology in areas that enable them to build upon their current strategies in technology (Alange et al., 1998). Thus, prior experience appears to influence the willingness to adopt and the rate of adoption and diffusion in

addition to Rogers' variables. The concept of absorptive capacity (Cohen & Levinthal, 1990) further suggests that an organization's ability to absorb new knowledge or for an innovation to diffuse throughout is based on its prior experience with this knowledge or innovation. In terms of creating a learning organization or an intelligent enterprise, this theory says that the greater the absorptive capacity of the organization, the greater is the ability of its employees to absorb and use new knowledge effectively.

APPLICATIONS TO SMALL BUSINESS

How can these theories be applied to a small business for transformation into an intelligent enterprise? First, relying on Rogers' classic theories, a small business can easily communicate the advantages of these new technologies and practices using mass media channels, such as company newsletters, e-mail, or company meetings. After making people aware of the new KM system, the business can use interpersonal channels to effectively persuade people to try them and continue using them. By using homophilous colleagues (individuals with similar attributes such as common beliefs, education, social status and values), a small business can more effectively persuade people to adopt and then use the KM systems. These "knowledge champions" represent very important motivators and influencers because they are trusted and respected by their peers (Jones et al., 2003). This is very important because the literature is replete with cases of companies investing in new technologies and new management strategies, which are simply viewed with skepticism as the "latest fad". However, by carefully selecting peers who are trusted and respected, the adoption and diffusion process can be greatly facilitated.

Similarly, the literature describes the huge influence of culture on the effectiveness of KM systems and the development of a learning organization (intelligent enterprise). Rogers' theories can be effectively applied to the cultural aspect as well. The effect of norms, opinion leaders, and change agents can exert a profound influence on the adoption and diffusion of an innovation throughout a social system. This is because norms (culture) can exert a powerful influence on people's willingness to accept or reject an innovation depending on whether it is compatible with their existing values and norms. Therefore, by using change agents as cultural influencers, small businesses can greatly enhance the transition to becoming a learning organization/ intelligent enterprise while using knowledge management systems to provide competitive advantages. Finally, in an organizational social system, such as within a small business, a powerful individual within the organization, such as the business

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