A Simple Knowledge Management Strategy Model for SMEs in Developing Countries

Kitimaporn Choochote, Roger Nurse

Abstract—The area of knowledge management has been in the highlight for enterprises over the past three decades. Many enterprises would like to have knowledge management and work hard to achieve it, however they are often confused about which direction to take to be successful and this point is especially true for Small and Medium Enterprises (SMEs) in developing countries. Many large companies have realized that knowledge is one of the richest resources which an organization possesses and knowledge management is a part of the foundation for a sustainable competitive advantage. Much work has been done in the area of knowledge management, but most of it has served large enterprises. This research provides a Model of knowledge management strategy for SMEs. It is based on analysis, insights and recommendations and it is presented so that SMEs in developing countries can easily understand and implement this model.

Keywords—Competitive advantage, Developing Country, Knowledge Management Strategy, Small and Medium Enterprise

I. INTRODUCTION

IN an economy where the only certainty is uncertainty, the one sure source of competitive advantage is knowledge. When markets shift, technologies proliferate, competitors multiply, and products become obsolete almost overnight, successful companies are those that consistently create new, disseminate it widely throughout the organization, and quickly embody it in new technologies and products [1]. Changes in the business environment are taking place faster than ever before. Information processing and knowledge management has secured a competitive advantage for many large companies; however SMEs seem not to be participating in this revolution. Unfortunately SMEs in developing countries, especially the least developed countries, lack an understanding of what is required to build, operate, manage and service the technologies involved, and policies that promote the use of information and knowledge systems. While knowledge management is recognized as management of the 21st century, there are many problems if people launch programs of knowledge management without due consideration to factors which facilitate or hinder the knowledge management system.

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Therefore, understanding the factors affecting success and failure of knowledge management processes is an important key to help managers identify and understand what is required to make knowledge management work. Once the factors are understood, they can develop related context that influences the effectiveness of their knowledge management processes [2].

The knowledge diagnostic remains one of the least understood aspects of knowledge management, that is, how central a role knowledge assets, or lack thereof, play in people's capabilities to deliver quality work, or in the enterprise's ability to pursue and achieve strategic foals. Competent knowledge diagnostics rely on an integrated understanding of how competent intellectual work contributed, and how the myriad of knowledge management solution alternatives that are available can help conduct effective and systematic knowledge management [3].

Management scholars and writers, including Nonaka and Takeuchi, Drucker, Leonard-Barton, Senge, Quinn, and more recently, Davenport and Prusak made an impact in the 1990s through influential books with different points of view. Organizations are confused about where and how to start, even if they acknowledge that knowledge management could make a difference to their performance. There is a need for models, frameworks, or methodologies that can both help them to understand the sorts of knowledge management initiatives or investments that are possible and to identify types of knowledge management that make sense in each context.

Even though the utilization of knowledge has become a key factor for the success of organizations, management has found it difficult to transform their firm through programs of knowledge management. Many models and theoretical frameworks from various perspectives try to explain knowledge management, but empirical proof of knowledge related hypotheses are scarce; also there is a lack of coherence between different concepts of knowledge management. For practicing managers, there is a major gap between knowledge management theory and practice. It is therefore essential to gain a clear and comprehensive understanding of how knowledge works within the organization [4].

II. LITERATURE REVIEW

A. Knowledge and Knowledge Management

Knowledge is the full utilization of information and data, coupled with the potential of people's skills, competencies, ideas, intuitions, commitments, and motivations. In the highly volatile and extremely competitive global economy of today, knowledge is people, money, leverage, learning, flexibility, power, and competitive advantage. Knowledge is more

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relevant to sustained business than capital, labor or land. Nevertheless, it remains the most neglected asset. It is more than justified true belief and is essential for action, performance, and adaption. Knowledge provides organizations with the ability to respond to novel situations and thus generate and sustain competitive advantage over their rivals [5].

Knowledge can be classified into two types: "explicit knowledge" and "tacit knowledge". Explicit knowledge can be expressed in formal and systematic language and shared in forms of data, scientific formulate, specifications, manuals and such like. This kind of knowledge can be readily transmitted between individuals formally and systematically. Tacit knowledge is highly personal and hard to formalize, making it difficult to communicate or share with others. Subjective insights, intuitions and hunches fall into this category of knowledge. Tacit knowledge is deeply rooted in an individual's actions and experience as well as the ideals, values, or emotions he or she embraces [6].

Knowledge is the insights, understandings, and practical know-how that we all possess; it is the fundamental resource that allows us to function intelligently. Overtime, considerable knowledge is also transformed to other manifestations, such as books, technology, practices, and traditions, within organizations of all kinds and in society in general. These transformations result in cumulated expertise and when used appropriately, increased effectiveness. Knowledge is one, if not the, principal factor that makes personal, organizational, and societal intelligent behavior possible [7].

Knowledge management is the process of identifying, capturing, organizing and disseminating the intellectual assets that are critical to the organization's long-term performance [8].

Probably one of the most well know documented cases of knowledge management successes can be found in the works of the prominent Japanese author, Ikujiro Nonaka. In his book titled "The knowledge-creating company: how Japanese companies create the dynamics of innovation", Nonaka documents the knowledge management strategies of major Japanese companies in the automobile and electronics industries. Companies such as Honda, Canon, NEC and Nissan are analyzed to investigate the relationship between their knowledge management strategy and their success [9].Other examples of documented success cases can be found in the book "Leading with knowledge: Knowledge Management Practices in Global Info-tech Companies" by Madanmohan Rao, where prominent companies such as Novell, Oracle and IBM are studied for links between their knowledge management strategies and their successes [10].

B. Knowledge Management for SMEs

Knowledge management for small and medium enterprises (SMEs), The size difference between SMEs and large size enterprises (LSEs) gives them certain behavioral advantages like rapid decision making, flexibility, less strict regulations, governmental support, fast internal communication rather than material advantages like possessing research facilities, access to external capital, professional management, risk spreading

[11]. These characteristics cause SMEs and (LSEs) to play different roles in society [12]. Within the SME class of companies there are variations with respect to the use of technology [13].

C. Knowledge Integration by SMEs-Practice

Knowledge integration (KI) is the process of external knowledge identification and acquisition, and internal utilization of external knowledge [14]. It is an activity of the knowledge management process. There are a large number of solutions for KI problems.

D. Codification – Knowledge Maps

Besides knowledge integration another important aspect of the knowledge management process is knowledge codification and dissemination. Knowledge codification takes place when knowledge is written down in books and manuals, stored on films (e.g., instructional videos) or embedded in everyday work procedures or software (e.g., diagnosis software, expert systems). These media are widely used and serve the purpose of articulating, transferring and storing explicit human knowledge.

Knowledge maps, in contrast, do not attempt to codify the knowledge itself, but rather to codify "knowledge about the knowledge". Like geographical maps, they guide the way and help to find knowledge, either in the form of knowledgeable people and experts or in the form of knowledge media [15]. Knowledge maps are extremely useful for the dissemination and retrieval of knowledge. Furthermore, knowledge maps are used to structure a knowledge domain in order to provide a shared understanding and common vocabulary and to preserve meta-knowledge about a topic [16]. In many cases, however, knowledge domains are unstable: because of shifting business environments (e.g., new markets, technological progress), formerly important knowledge can lose its relevance, while new knowledge becomes important. Knowledge maps can be employed to analyze shifting knowledge territories by codifying the different individual views or "mental models" people have about reality. These models can be transferred to other people, assessed, updated, and improved, subsequently leading to increasingly adequate shared mental models of reality [17].

E. Knowledge Management Models

There are many models which have been developed and published where knowledge management is concerned. However they tend to focus on large enterprises, while this research focuses on small and medium enterprises. Some of the terminology and theories will be borrowed from these models throughout this research. One such concept, developed by Nonaka, is 'ba'. Even though throughout the research this concept may not be specifically referred to, its theme will show up.

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F. The Concept of 'ba'

The concept of 'ba' refers to a shared space or environment where entities feel safe to share their information, ideas and knowledge [18]. This shared space could be physical or virtual. In the case of physical it may be a thinking room, board room or employee lounge, while in the virtual sense, it may refer to message boards, emails or chat rooms. As long as entities feel comfortable enough to exchange thoughts, experiences and knowledge freely, 'Ba' exists.

III. RESEARCH FOR THE STUDY

Research is needed to build a comprehensive model of the context of knowledge management strategy and more so how it applies to SMEs in the developing world. This research will examine knowledge management strategies used by SMEs in developing countries and by doing so it will contribute towards the difficult problem of using knowledge management strategies within a given context.

IV. RESEARCH MODEL

Many companies find it difficult to devise a knowledge Management strategy. The model presented in this paper is simple to understand and use to develop a knowledge management strategy (KMS) and gain a competitive advantage.
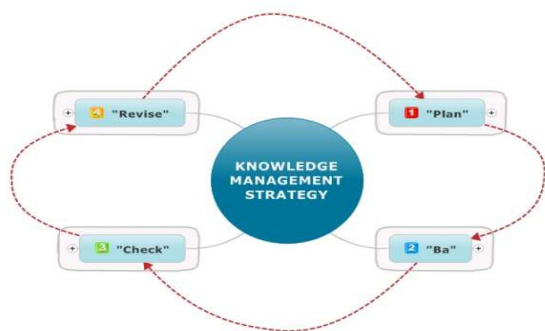

Fig. 1 of Knowledge Management Strategy for SME

The PBCR Model (as shown in fig. 1) consists of four components which when effectively combined produces a solid knowledge Management strategy (KMS) for SMEs. Below is an explanation of each of the components:
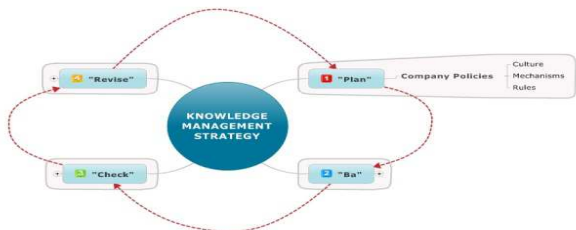

Fig. 2 The PBCR Model "1- Plan" of Knowledge Management Strategy for SME

The first part is- Plan (as shown in fig. 2)This component refers to what mechanisms, culture and rules the company has which affects the creation, distribution and management of knowledge. Issues such as:

- Clearly set goals
- Communication of goals
- Research and development support
- Commitment to change and innovation
- Incentives for employee innovation and performance
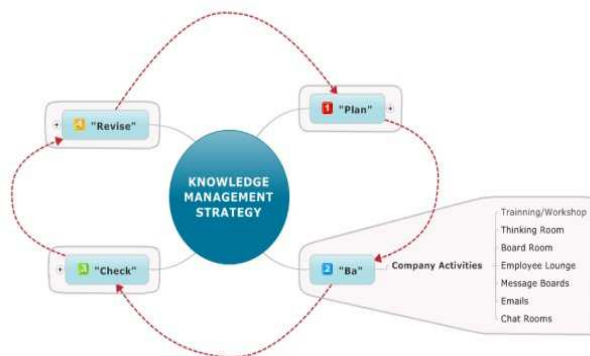- Company management style

Fig. 3 The PBCR Model "2-Ba" of Knowledge Management Strategy for SME

The second part is- Ba (as shown in fig. 3) this component focuses on the knowledge of staff or workers. The company should encourage/develop company activities which allow employees to feel comfortable and sincere with each other so that they can share experiences and exchange ideas with each other. Companies should prepare a space, like a thinking room or employee corner for workers to exchange ideas.
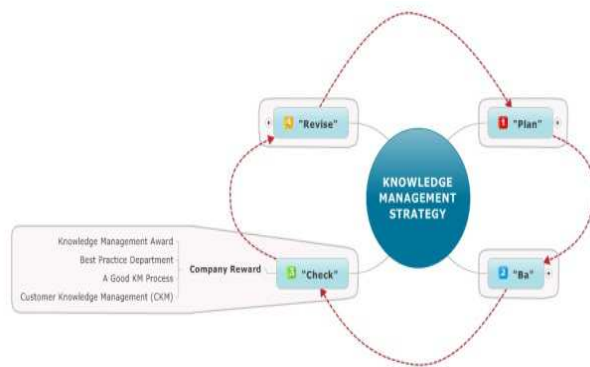

Fig. 4 The PBCR Model "3-Check" of Knowledge Management Strategy for SME

The third part is- Check (as shown in fig. 4) this component focuses making sure that knowledge is being created, stored and disseminated. During this phase persons or departments could be recognized and rewarded for their contributions to the knowledge management process.
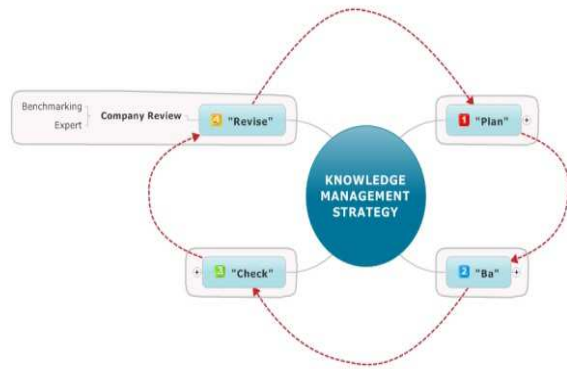
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Fig. 5 The PBCR Model "4-Revise" of Knowledge Management Strategy for SME

Finally, the fourth part is- Revise (as shown in fig. 5) this component focuses on using knowledge created in this process and changing policies, systems and goals to reflect the insights gained from the entire process. Once this is done, the process begins anew and novel ideas are continued to be developed.

V. CONCLUSION

The PBCR Model is simple and provides a quality knowledge management strategy; (1) first, a plan is created which must be understood by the entire company. (2) Second, Ba must be established for the sharing and dissemination of ideas. (3) third, checks must be put in place to determine if the process is working smoothly and to provide suitable incentive and rewards for positive outcomes. (4) finally, existing systems must be revised to include new knowledge emanating from the process.

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