The Profile of Knowledge Management System

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Abstract- *To be successful in today's economy, organizations have to treat the knowledge that contributes to their core competencies just as they would any other strategic, irreplaceable asset. However, a feasible model in knowledge management seems more important than knowledge management methodology. Based on this concept, this paper looks at the applicability of knowledge management model in variable environment to improve the performance of management and the profit of management. The profile based knowledge management in the new information system will be discussed.*

Keywords: Profile*,* Knowledge Management, Knowledge Capital.

1. Introduction

Contemporary Knowledge Management (KM) is the ability to selectively capture, archive, and access the best practices of work-related knowledge and decision making from employees and managers for both individual and group behaviors. However, implementing a KM program isn't as simple as purchasing a shrink-wrapped package of software. A successful KM implementation requires long-term commitment from senior management, a leadership that is attentive to the corporate culture, committed, trained employees and managers, and the appropriate use of information technology.

Knowledge management environments are open and change rapidly over time. To provide relevant knowledge to assist the human user in executing knowledge intensive tasks is the main goal of KM environment. The relevant knowledge will make users to perform their tasks better with this knowledge than without it. For this reasoning, the environment must be able to adapt to the different needs and preferences of users, and integrate naturally with existing work methods, tools and processes [6].

2. Knowledge capital

Because knowledge is embedded in a multitude of sources, KM systems should be able to handle formal and informal knowledge representations, as well as heterogeneous multimedia knowledge sources. This is a complicate management work. Tracking knowledge Assets is the top task first. There three major components of knowledge capital which are tracking needed [2]:

1. Human capital. The knowledge, skills, and competencies of the people in the organization. Human capital is owned by the employees and managers that possess it. Without a KM system in place, when employees and managers leave the company, they take their skills, competencies, and knowledge with them.

2. Customer capital. The value of the organization's relationships with its customers, including customer loyalty, distribution channels, brands, licensing, and franchises. Because customers often form bonds with a salesperson or customer representative, customer capital typically is jointly owned by employee and employer. The proportion of customer capital held by employees and employers depends on the relative contribution of customer loyalty to customer capital.

3. Structural capital. The process, structures, information systems, and intellectual properties that is independent of the employees and managers who created them. Intellectual properties are sometimes considered as a separate, fourth component of intellectual capital.

To cope with tracking the three distributed source knowledge, this environment should include loosely connected heterogeneous, multimedia sources, dynamically defined goals, virtual, dynamic links between knowledge needs and knowledge sources and has adaptable, intelligent personal assistants, providing support to users. [3]

People are the key actors in the organizational processes and the main entity of KM systems. Actor means either the job title of the person using the system, or the role that person is playing at the moment of using the system. From the system view, actor will play Role eventually. If we use role based view to implement our knowledge management, the scope and loading of management will be greatly simplified by using roles, role's hierarchical relations, and knowledge binding [4] between organize and personal knowledge.

3. Knowledge Sharing

The conversion of tacit, personal knowledge into explicit, organizational knowledge is the most KM efforts. In general, knowledge sharing can be divided into two ways [8]:

- Socialization: Sharing of tacit knowledge between groups. It converts knowledge from tacit to tacit.

- Articulation: An individual formulates his own tacit knowledge in a way that can be communicated to others.

Knowledge sharing efforts should concentrate on describing the context of knowledge rather than in the knowledge contents [6]. In order to share knowledge across tasks and processes, it needs some actor's response to describe the applicable knowledge. By the role's mediation, knowledge sharing will follow a set of uniform rules for describing guidelines in that role domain, and the style of knowledge description can be normalized and accumulated.

4. The Profile about Knowledge Management System

Miklos Sarvary [5] revealed three processes for knowledge management:
1. Organization learning: the process of organized knowledge acquiring
2. Knowledge production: the process about converting the raw information to knowledge.
3. Knowledge distribution: the process about sharing knowledge and using collective knowledge from organization.

In the base of these three processes, we can classify the actors in the new management model. We concluded them to the six roles as the following, see Figure 1:

1. Knowledge digester: The gatekeeper which filtrate the knowledge and response to submit knowledge.

2. Knowledge dispatcher: According to the knowledge prosperities, dispatcher assign the knowledge verify work to valuator.

3. Knowledge valuator: The valuator evaluates the knowledge veracity and usefulness.

4. Knowledge builder: The builder constructs the knowledge with knowledge description.

5. Knowledge publisher: Publishing and providing a formal content for user's requesting.

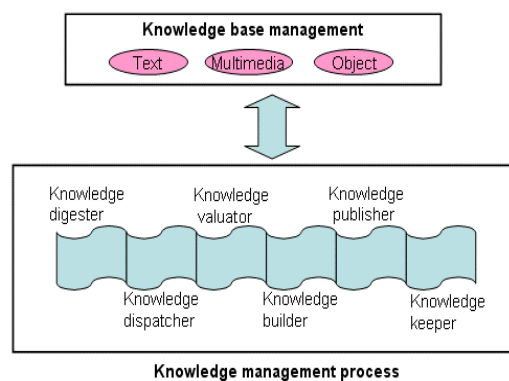6. Knowledge keeper: To maintain and update the knowledge base.

Figure 1. Knowledge Management Roles

Because of the role's mediation, the member of knowledge domain can be assign to different role as the condition changes. Each role has profile binding itself and the role's profile will keep the knowledge management skills when the user escapes. In the meantime, by using profile, the work of core knowledge describing will be normalized and unify. By using the Profile to capture the management experience from one generation to next generation, the skill of knowledge management will be acceded and shared.
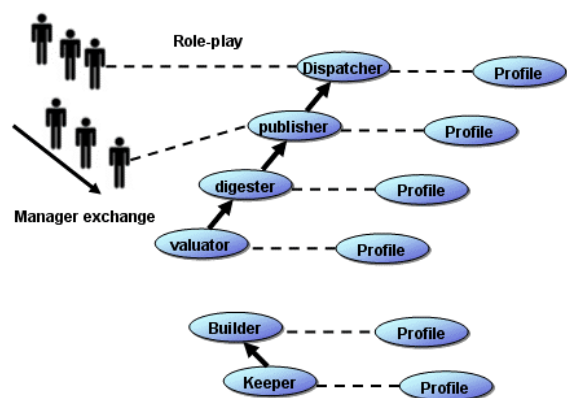

Figure 2. Management Inheritance

In figure 2, valuator can be dispatcher, publisher, and digester. Keeper can also play a builder. If we deduct the six roles, we will find the management inheritable relations. This is not the role's job inheritance but a manageable skill inheritance.

5. Discussion

We conduct the six roles in the knowledge management model. The management profile is bonded to the role without disposing when user changes. This made the KM model more scalable and manageable in the practice of management. Furthermore, the organization structure will be mapped into the management role's hierarchical structure and benefits from it. When user and environment change, the cost of administration will be lowered down and the knowledge acquiring processes continue to work without temporary interruption.

The profile records the history of management which enhances the power of knowledge management system. By using the profile, the operation of model is also a knowledge sharing model itself.

The link between Knowledge Management and information technology is the work for follow up. Based on this model, a prototype system developed can be constructed and be used to examine the validity of this model.

6. Concussion

The synergy between knowledge management system and profile-based enhancement will bring forth a lot of untapped benefits in system architectures, since there are still no too many researches in this area. Also, with the increasing number of KM implemented in the enterprise domain, the knowledge management constructed by the web portal [1] will have multiplier effect based on the reusability of manage profiles.

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