

# Chapter 17

## Alignment of Knowledge Sharing Mechanism and Knowledge Node Positioning

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### ABSTRACT

*As the organizational memory in terms of collective knowledge evolves, how to construct an effective knowledge sharing mechanism to convert individual knowledge into collective knowledge becomes fairly demanding. CoPs approach is widely accepted as effective mechanism to facilitate knowledge sharing. Knowledge nodes in the context of knowledge flow, unlike workflow, can often transcend organizational boundaries and are distinct and different than workflow models. This paper aims to develop, implement, and analyze a CoPs Centered knowledge flow model in a multinational organization. This model is underpinned in a CoPs framework built around four expected performance including four dimensions and sixteen criteria as a comprehensive mechanism to intensify knowledge sharing effect. Next, this study clusters knowledge workers/nodes with common criteria (attitudes and beliefs) towards this model. These common attitudes and beliefs between two knowledge workers/nodes imply that knowledge sharing among them is likely to be more effective than between knowledge workers/nodes with dissimilar attitudes and beliefs. Fuzzy Multi-Criteria Decision Making MCDM) and cluster analysis techniques are adopted as research methods. A Dynamic knowledge flow activity analysis model is also defined as part of future work.*

### INTRODUCTION

Organizational memory in terms of expertise ability has to be leveraged as critical yet difficult to manage (Wayne et al., 2000). Particularly organizations today exist in the knowledge era as against

the information era of 1980 and 1990's. They compete with each other on the basis of knowledge and innovation (OECD 1996, 1999). Thus organizational innovation through knowledge sharing and knowledge node identification is an important means of surviving as well as excelling

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in a highly competitive business environment, in pursuit of learning organizations of the future will not be constrained by traditional boundaries. Thus this research envisions organizations as a set of knowledge nodes to generate knowledge flow which can extend outside organizational boundaries as against conventional work flow networks. Human nodes used in workflow are not necessarily the same as nodes used in knowledge flow in an organization.

Knowledge node not only falls within the scope of managers, information technologists and knowledge workers but involves Communities of Practice (CoPs) in an organization (Lesser, 2001). CoPs have been proven as effective platform to facilitate knowledge sharing (McDermott, 1999; Grant, 1996). CoPs are identified as self-emerging groups initially but the strategic importance of CoPs has made organizations to look into the possibilities of identifying and creating CoPs. A number of organizations create communities with managed membership accordingly (John & Patricia, 2000). Resources in terms of technology, people and content (Grant, 1996) are then invested to develop CoPs and these resources have to be utilized optimally. Quite a few researches have suggested guidelines and models for creating CoPs (Wenger et al., 2002, Loyarte & Rivera, 2007, McDermott, 1999). However, a lack of comprehensive CoPs framework as powerful knowledge sharing mechanism drives a growing need to allocate appropriate resources. Therefore, the first objective of this paper is to develop an easy to understand CoPs hierarchy consisting of exhausting dimensions and criteria.

The importance of knowledge has made organizations to focus on knowledge sharing strategy (e.g. CoPs) and its alignment with how to identify the knowledge nodes effectively. The alignment with the business goals and the objectives of the organization are necessary to achieve competitive advantage (Michael, 1999). The need for proper system to position where the knowledge nodes exist

to connect with share knowledge in the context of CoPs has initiated the process of alignment. The realization of this alignment as a carrier to imitation (Kogut & Zander, 1992) has diverted the attention to tacit knowledge. CoPs have been identified as an important tool in managing the tacit knowledge and then the knowledge nodes can be identified the most intense knowledge sharing points which provides competitive advantage to the firm (Jeanne, 1999).

The previous work on knowledge node centered knowledge flow networks focus on linking people based on organization structure, tasks, and knowledge compatibility (Zhuge, 2006). In other works, these researches do not throw adequate light on the need that knowledge flow occurs between knowledge nodes outside traditional organizational structure, business functions and organizational boundaries. As the second aim in this paper, the authors propose to enhance in design of knowledge node embedded knowledge flow based on the survey in relation to CoPs perceptions in an organization.

A CoPs framework has been defined, which constitutes 16 criteria along four major dimensions in this research. These criteria and dimensions are used to identify common interaction factors (beliefs and attitudes) which link and facilitate effective knowledge sharing between knowledge workers/nodes in a knowledge flow. These factors and the CoPs model have been validated using a large multinational organization as a case study. Given that, knowledge flow is dynamic phenomena in an organization, a dynamic model for analyzing knowledge flow activities like knowledge sharing, knowledge discovery, and knowledge creation is also described.

The structure of this paper is organized as follows. Section 2 covers the theoretical considerations underpinning the definition and construction of CoPs framework and knowledge flow model. Section 3 describes research methodology of fuzzy Multi-Criteria Decision Making (MCDM)

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