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Knowledge sharing and using on Community of Practice in construction industry: An Identifying Stimulate Model

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Abstract: In construction industry, while requiring advanced knowledge of technicians through a long experience, there is a problem with the tacit knowledge is not carried on the inner organization. Recent technological developments allow sharing and application of the tacit knowledge while technology tools use the CoP(Community of Practice) that mainly interacts between people. Clearly, the most consideration in stimulating CoP is the circulation of knowledge, namely the willingness to share and use knowledge with others. It is then important to explain why individuals factors to share and use knowledge with others when they have a choice. In this paper, we would like to report to find out about factors whether people are actually sharing and using the knowledge obtained in CoP. The results help to analyze which factors are influenced to be a successful CoP in construction industry. The implications for theory and future research direction are discussed.

Keywords: knowledge sharing; knowledge using; tacit knowledge; community of practice; outcome expectations; construction industry

I. INTRODUCTION

A. Research background

In the knowledge-based society, knowledge is one of the most important factors. Knowledge can be divided into two categories; tacit knowledge, explicit knowledge [1]. In particular the construction industry, because it has the characteristics of the center of the project, or knowledge and technology to be buried, it is inefficiently managed [2]. Also, these knowledge, almost has the form of tacit knowledge, difficulties occur in managing knowledge [6]. Therefore, it is important to management of tacit knowledge of the construction industry on the basis of the experience [7]. There is a way to be able to make a connection with each other in Community of Practice, i.e. CoP has emerged [4]. The most consideration part to be in CoP is circulation of knowledge, the willingness to share and use knowledge with others. Related research in the characteristics and synchronization of the individual level of one person members must be treated important [3]. In this study draw on which factors at the individual level is effective on stimulate and sustainable Cop.

B. scope & method

The range of research, it was limited to the construction industry. Then through the previous research, analyze the concepts of CoP and knowledge activities elements. Based on this, this paper provide support for the proposed model.

II. PRELIMINARY STUDY

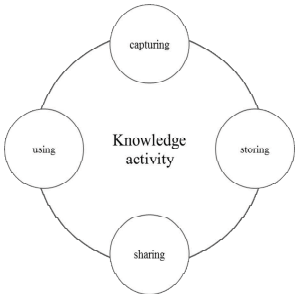
A. Community of Practice (CoP)

CoP is, and interest to a particular topic, share a series of problems and passion, through a stable interaction, which means the group is to deepen the understanding and knowledge of the members of these topic areas [5]. There are three elements; the subject area of activities that CoP to activities (domain), the formation of the community (community), and the share (practice) and the creation of execution [5]. The word CoP, the new coinage was introduced for the first time by 1998 Wenger is, these concepts, there has been steadily from before that in our life. It means most of the community to be carried out on-line, but activities like this have a way of face-to-face communication can also be seen as a CoP. At school, at work, or even in everyday life, we are in CoP activities.

B. Knowledge activity cycle

The knowledge utilization, the cycle with several phases exist. The knowledge activity cycle places the processes associated with knowledge management in a sequence in a cycle [8]. Davenport, T.H [9] defined 4 stages of knowledge activity cycle; capturing, storing, sharing and using in the Figure I. Of the 4 stages, capturing and storing, there is a need for a system analysis. The sharing and using steps on the remaining 2 stages, is the analysis of individual needs.

FIGURE I
KNOWLEDGE ACTIVITY CYCLE



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C. Resources

This critical resources affecting the knowledge sharing and using.

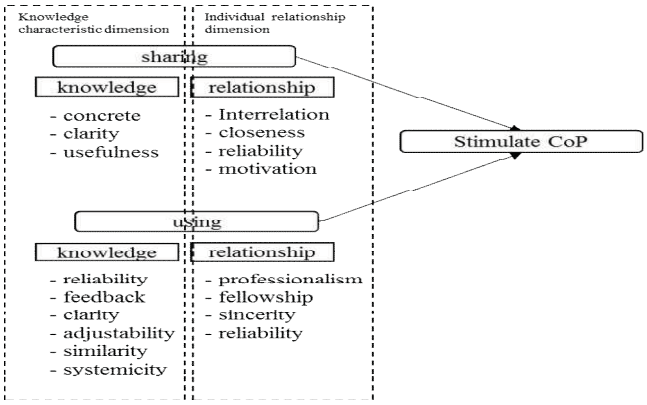
TABLE I
CLASSIFY KNOWLEDGE SHARING AND USING RESOURCES

Category	Author	Resources
Sharing	Lee(2014)	reliance, group target, diversity of members, knowledge integration
	Ku(2011)	commitment, job involvement, organizational commitment
	Park(2011)	reliance, participation request, compensation, group target
	Kim(2010)	individuality, activity characterization, demographics
	Sung(2009)	individuality
	Koh(2006)	sponsor, dedication of leader
Using	Park(2011)	performance expectation, target setting, reliance, experience
	Park(2011)	reliance, participation request, compensation, group target
	Hun(2010)	compatibility, reliance, systemicity, fidelity, similarity, feedback, comprehension

III. RESEARCH MODEL

This paper has incorporated two dimensions of critical factors affecting to stimulate CoP. Resources coming out of Table I were classified separately in knowledge characteristics dimension and individual relationship dimension. In the knowledge characteristic dimension, rather than the quantity of knowledge, select the resources that emphasizes the quality. The part of the individual relationship dimension, it considered not only individual level but also relational level. Therefore, the research model is shown in Figure II.

FIGURE I I
RESEARCH MODEL FOR STIMULATE COP



IV. CONCLUSIONS

On the characteristics of the construction industry, rather than formal knowledge, there are a lot of knowledge that is displayed in the form of tacit knowledge. Cop technique in how to deal with these knowledge has been utilized. The most consideration of stimulate CoP is the willingness sharing and using knowledge with others. Then, it is important to analysis at an individual level. This study addressed the resources divided on knowledge characteristic dimension and individual relationship dimension. The results help to analyze which factors are influence to be a successful CoP in construction industry. Consequently, the flow of tacit knowledge is generated increase the efficiency of construction knowledge management. As a limit of this study, it is the selected element does not reflect changes along the passage of time, sustainability analysis of CoP being operated is missing. Based on this research, case study for the validation of the elements should be performed.

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