

Effectiveness of Use of KMS between Suppliers and Buyers by Collaboration

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Abstract. Recently, Knowledge has been considered as very significant resources of company for the competitive advantages in business environment. Specially, between buyers and suppliers knowledge sharing have been studied long times ago at industrial and business field because the relationship of buyers and suppliers are the most important relationship at business process and business models. Early studies and research, Knowledge sharing is emphasized among the supply chain partners for gaining the goal of company by researchers. However, most of firms haven't use knowledge of partners in the supply chain well. From this reasons, recently researchers are focusing the knowledge compliments are trigger of Knowledge sharing among the partners that is the include buyers and suppliers. Previous studies and researches haven't distinguished well about the latent knowledge compliments and realized knowledge compliments. Also, Latent knowledge compliment could be come to be realized sharing between partners by knowledge. For this reason realization of latent knowledge should be established by sharing and unification of information and knowledge in the supply chain.

1. Introduction

1. Literature review

Knowledge of firms is thought very important resources (Grant 1996a), the firms are looking for information and knowledge those are needed for firms for their expect value (Kougut and Zander 1992; Gulati et al 2000). If this information and Knowledge have different and complimentary characteristics, firms and organization can achieve the economy of Scope.

Also, Using different information and Knowledge, firms can establish synergy effects between partners and can have capability that company recreate knowledge for firms. (Harrison et al.1991; Lofstrom 2000).

After all, Company can get the competitive advantages from Knowledge complimentary (March 1991; Harrison et al 2001). So that Knowledge complimentary is the important primary success factors for strategy alliance (Hitt et al. 2000).

Like motor industries have been considered information of supplier and knowledge as the most important success factors of motor industries. These success factors of strategy are based on Knowledge complimentary.

GM, Ford Hyundai and the other motor companies have recognized knowledge relationship of buyers and seller (Suppliers) in the knowledge sharing. Thus most of motor companies have Knowledge management system (KMS) between the buyers and suppliers. KMS is very important intermediary for knowledge transfer and knowledge exchanging for B2B. New model of car, buyers need, suppliers need and problems of making the car and all information & Knowledge transfer and stored the KMS thus KMS is the most important system between suppliers and buyers. According to use of KMS, it has been focused on only user acceptance and use of KMS for early study. This study suggests that what factors are affected on KMS use in the supply context and how can increase the use of KMS that has the information and knowledge between the suppliers and buyers.

2. Definition of Variables and hypothesis

2.1 Knowledge sharing between the business entities

In the early study, many researchers found out and advocate that knowledge is the important resources of firms and knowledge is showed as the resource affect the activity of firms (O'Dell and Grayson, 1998; Wiig, 1999). Also, Knowledge that was created by complimentary is the basis of survival factors by RBV (Resource based view) instead of TCE (Total Cost Exchange) view.

Forexample, relationship between the supplier and buyers is the most important factors in the Motor industry. Already many studies and research have been found out that firms and organization has the limitation of creation for resources that company needs (Morgan and Hunt, 1994; Ganesan 1994). The other studies also suggest that firms need accessibility of the knowledge in the outside of firms. (Shaker A. Zahra and Gerard George 2002).

In the collaboration, between the partners in the SCM context, we perceived that collaboration can be brings up the efficiency, ability of adoption for new environments and competitive advantages (Gomes-Casseres, 1996; Dyer and Singh, 1998). Moreover, collaboration increases the results by the one and adds one it means that results should be made more than one (Gomes-Casseres, 1996; Dyer and Singh, 1998).

For the Reciprocity –complimentary is meaning that effects of system results are bigger than each component of systems (Ichniowski et al. 1997). In the view of capability, the other resources could have the effect from economy of scale that is a larger, redundant resource base or risk sharing. According to the knowledge sharing, the economy of scope of is the more important than economy of scale because if two firms have same knowledge and merge these firms couldn't get the economy of scale.

2.2 Dependence between the buyers and suppliers

For the dependence, many researchers have many discussions from now on. Specially, partner of outsourcing could have decency from perceiving value of partners by interaction (Bensaou and Venkatraman1995). If between the two firms have same purpose of business, these two firms depend each other (Litwak and Hylton, 1962). Dependency of firms could be made by each firm's goals and activities (Vitor and Blackburn, 1987). Above statements and suggestions show how depends is the important by many research. Each firms needs dependence for keeping the exchanging activity of B to B this activity. We can conclude that dependence is the need to keep the exchange relationship for acquiring the goals (Anderson and Narus 1990; Buchanan, 1992).

Relationship of exchange is the very important factors of collaboration for buyers and suppliers. Without collaboration firms couldn't get the goals of company. During the other companies or partners supply resources dependence will be increased by collaboration. As a condition where two entities must take each other into account. If they are to meet their goal (Litwak and Hylton, 1962).

How the actions of actors determine their individual pay offs or success, specifying the consequential link between the activities and goals of actors who are depend on each other. (Vitor and Blackburn, 1987)

We suggest that buyers' dependence and suppliers' dependence can affect the collaboration between the partners.

H1: Buyers' dependence for suppliers increases the collaboration between the buyers and suppliers.

H2: Suppliers' dependence for buyers increases the collaboration between the buyers and suppliers.

2.3 Trust of between the buyers and suppliers

Trust is the very important behavior concept for Business, Economics, Sociologies, psychologies and the other fields. Also, It is the preceding factors of collaboration. This theory is mentioned many articles (Powell, 1990). Also, trust is defined expectation and hope, which the others would do for our purpose and goals. After establishing the trust, no need to spend cost for watching the opportunity activity that is not expect (Madlhok, 1995). For the Knowledge sharing, should be establishing the trust first. Based on trust, knowledge can be more shared than without trust (Charkravarthy et al., 1999; Nelson and Coopriider, 1996; Tsai and Ghosal, 1998).

H3: Buyers' dependence for suppliers increases the collaboration between the buyers and suppliers.

H4: Suppliers' dependence for buyers increases the collaboration between the buyers and suppliers.

2.3 Collaboration of between the buyers and suppliers

Collaboration of Know-how is required know-how has been defined as knowledge of current practices required to transform inputs into out-puts as effectively possible (Brown and Duguid 1998). An individual's collaboration know-how refers specially to knowledge about how to communicate one's own ideas and integrate it with others' idea, including how to coordinate one's actions and work with others on the team. This notion of collaboration know-how builds on Grant's(1996) concept of knowledge integration, such as different communication practice and interpretations of meaning (Cramton 2001, Hinds and Bailey 2003, Maznevski and Chudoba 2000, Majchrzak et al., 2000). Company point of view, collaboration is that more than two firms try to achieve to goal that is the profit of companies (Mohr and Spekman 1994). Mostly, firm use the sharing knowledge for capability of company.

2.4 Sharing the information and Knowledge throughout collaboration.

From the Collaboration, company can get the capability, knowledge those can help to expand the resources and improve the results (Ahuja, 2000; Hagedoorn, 1993; Lee, Lee, & Pennings, 2001; Mitchell & Singh 1996; Powell, Koput, & smith Doerr, 1996).

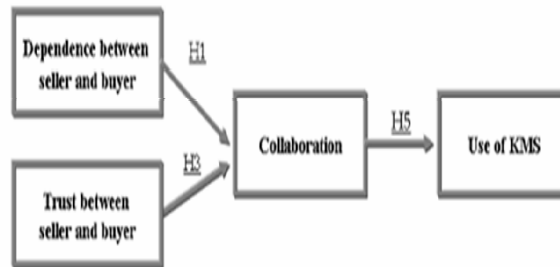
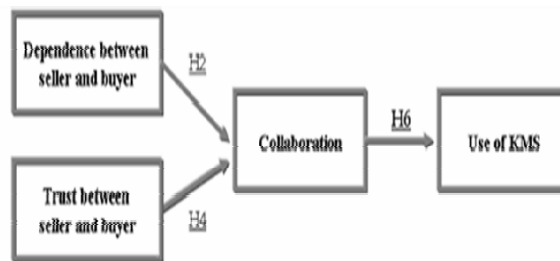
In other words, collaboration could help the adoption of the new knowledge. This process can make the firms get the economy of Scope (Sam Youl Lee & Suk won Ryu, 2005). The Collaboration can help that participators access to information. Firms can use to collect the information and achieved knowledge by collaboration (Ahuja, 2000; Gulati & singh, 1998; Lee, Lee & Pennings 2001; Powell, Koput, & Smith-Doerr, 1996).

H5 (H5-1): Buyers' dependence of suppliers can be positive effective for Use of KMS by collaboration that is the intermediation.

H5 (H5-2): Buyers' Trust of suppliers can be positive effective for Use of KMS by collaboration that is the intermediation.

H6 (H6-1): Suppliers' dependence of buyers can be positive effective for Use of KMS by collaboration that is the intermediation.

H7 (H6-2): Suppliers' Trust of buyers can be positive effective for Use of KMS by collaboration that is the intermediation.

Buyer view**Seller view****References**

1. Grant, "The Role of Organizational Controls in Managing Knowledge", The Academy of Management review, 1996
2. Kougut and Zander, "Knowledge of the firm and the evolutionary theory of the multinational corporation", November 2003, Volume 34, Number 6
3. Shaker A. Zahra and Gerard George, "The Net-Enabled Business Innovation Cycle and the Evolution of Dynamic Capabilities", Information Systems Research Vol. 13, No. 2, June 2002
4. Ahuja, "Collaboration networks, structural holes, and innovation: A longitudinal study", Administrative Science Quarterly; Sep 2000
5. Sam Youl Lee & Suk won Ryu, "Collaboration Network and Productivity", A Case of A Government Research Institute in Korea, 2005
6. Gulati et al, "Social Capital, Networks, and Knowledge Transfer", The Academy of Management Review, 2000
7. Hitt et al., "Technological learning, knowledge management, firm growth and performance: an introductory essay", Journal of Engineering and Technology Management, September 2000
8. Ahuja, "Collaboration networks, structural holes, and innovation: A longitudinal study", Administrative Science Quarterly; Sep 2000

9. Lofstrom, "Conditions for Knowledge Sharing in Competitive Alliances", European Management Journal, 2003
10. Ichniowski et al. "The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines", The American Economic Review, 1997