

Final Report for the REP grant

Project Title: Designing and Managing a Supply Chain for Better Organizational Learning

Time period of the grant: 1/1/2004 – 8/31/2004

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RESULTS OF PROJECT (abstract)

The project seeks to investigate intangible (i.e., knowledge) and tangible (i.e., physical resources) bases of supply chain integration. The project will generate three research papers. Basic literature review was done during the spring semester of 2004 to produce the first paper (theory part). The data collection, led by the co-investigator, was started in July and finalized in December 2004 with three hundred fifty two usable returns from the U.S. companies. This data set has been analyzed to be used for the later two papers. In detail, the *first paper* examines the *tangible* part of the factors influencing supply chain integration. Prior research suggests that specific asset investment affects supply chain relationship. Build on prior research, the first paper discussed the impact of *total* and *asymmetric* specific asset investment on supply chain relationship and to propose hypotheses of the effect. Structural equation modeling was used to test the hypotheses. Consistent with the hypotheses, the empirical results showed that total specific asset investment is positively related to commitment and trust, while asymmetric specific asset investment is negatively related to trust, and positively related to conflict in a relationship. Decision-making uncertainty, positively influenced by asymmetric specific asset investment and negatively influenced by total specific asset investment, plays a mediating role on the relationships. Implications of this study and direction for further research were also discussed. The *second paper* studies the *intangible* part of the factors influencing supply chain integration. A structural equation model revealed that bilateral contribution and/or knowledge level between the firms significantly facilitates further organizational learning in a supply chain and asymmetric contribution and/or knowledge level between the firms significantly impedes

organizational learning in a supply chain. Lastly, the *third paper* will develop a model to explain factors affecting an organization's learning in supply chain.

A LIST OF PUBLICATIONS/ PRESENTATIONS (present and pending)

1. "The effect of total and asymmetric specific asset investment on supply chain relationship" (by Taewon Suh, Henry Yu Xie and Ik-Whan Kwon) was presented at *2005 Winter American Marketing Association Educators' Conference* in San Antonio, TX in February 2005.
2. "Do magnitude and balance of specific asset investment matter in supply chain relationship?" (by Taewon Suh, Henry Yu Xie and Ik-Whan Kwon) has been sent to *Journal of Marketing Theory and Practice* in April 2005.
3. "Specific knowledge investment in supply chain partnership" (by Taewon Suh and Gail Zank) will be sent to *2006 Winter American Marketing Association Educators' Conference* and *Journal of Business Research* in July 2005.
4. "Conditions for learning in supply chain partnership" (by Taewon Suh and Gail Zank) will target *Journal of Business Logistics* in 2006.