E-commerce risk management in the logistics Industry: An Integrative Analytical Framework for Understanding Consumer Behavior*

(물류산업의 E-commerce 리스크 관리에 관한 연구)

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Early studies have paid particular attention to the control of alliances to cover the risks of differing objectives between firms in an exchange relationship (Nooeboom, Berger, & Noorderhaven, 1997). It has been suggested that the use of formal control mechanisms may enhance a trusting relationship by narrowing, down the domain and severity of risk (Pappo & Zenger, 2002). Hence, for effective alliance performance, partner firms need to manage this risk adequately by understanding the conjoint roles of trust and control. This paper aims to develop a comprehensive and integrative framework of trust, control, and risk in the context of logistics industry. Trust and control are inextricably interlinked with risk in supply chain. Therefore, to understand how logistic firms can effectively reduce and manage this risk, we need to examine the inter-relationships between trust, control, and risk. This study aims to identify the e-commerce risk reduction approaches—minimizing relational risk through goodwill trust, behavior control, and social control, while minimizing performance risk through competence trust, output control, and social control.

Key words: e-commerce risk management, risk perception, trust, control

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I. Introduction

In recently years, e-commerce has passed an upgrading process. It needs stability and trust promotion for giving optimal services and more user attraction that it's necessary for continuation of usage. With the development of information and communication technology in the present era, electronic commerce has become one of the most useful electrical city systems. In recent years and in the field of commerce and business, e-commerce growing trend that despite the public interest, security challenges ahead are significant that in many cases with severe mistrust of the users are facing.

E-commerce user can get help from these results in decision making whether do transaction with part in future. Also side effects of it provide an incentive for the next move and behavior in business that could have a positive effect on market quality. Customers trust to the seller is the most important success factors of sellers in online commerce and directly affects significant influence on consumer electronics purchases. Electronic trust affect significantly customer in doing transactions and activities. This effect is included in buy and remains loyal customers.

Reviewing the early contributions and recent developments in the literature, the relation between trust and control has been analysed recently in several studies (Das and Teng 1998, 2001; Bachmann 2001, p.394; Bachmann et al. 2001; Gallivan 2001; Grey and Carsten 2001; Knights et al. 2001; Reed 2001; Fryxell et al. 2002; Mills and Ungson 2003; Cardinal et al. 2004; Bijlsma-Frankema and Costa 2005; Molerini 2005; Long and Sitkin 2006; Schneider 2006; Ferrin et al. 2007; Khodyakov 2007a, b; de Man and Roijakkers 2009) and three special issues have recently been dedicated to this theme in Organization (No.2, 2001), in International Sociology (No.3, 2003) and in Group & Organization Management (No.4, 2007).

E-commerce is now driving changes in supply chain management. It is impacting vertical integration between trading partners (both shippers and logistic services providers) and the appearance of completely new functions and companies. The former relates to information sharing, common planning and exchange of existing functions by way of supply-chain integration. Suppliers, manufacturers, wholesalers, retailers and consumers can choose trading partners more easily and directly as the supply chain moves from a traditional physical structure to one which has virtual enhancements.

A consequence of e-commerce is that information becomes more easily available to all participants in the supply chain. Agents, forwarders, wholesalers and retailers will all face more and more competition from e-commerce sales channels. In a formal sense disintermediation occurs as certain intermediation roles in the chain become redundant. Yet we now know too little about the dynamics of supply-chain evolution as e-commerce begins to take hold in various industries and in turn has impacts on freight transport (Browne 2001).

This study aims to formulate the complex relationship between all of the factors: E-commerce risk perception (which is associated by relational risk, performance risk dimensions), Trust and Control. In this research, E-Commerce risk perception is an exogenous variable, and Trust and Control are endogenous variables. In order to carry out CFA (Confirmatory Factor Analysis) that establishes causal relationships among the constructs, a questionnaire survey followed by SEM (Structural Equation Modeling) is employed.

In this paper, we investigate the two alternative interpretations of the relation between trust and control found in the literature: the substitution perspective and the complementary perspective. The remainder of this paper is organized as follows. In the following section, we briefly review the related literature in E-commerce risk to ground our proposed model linking trust and control. Then, the empirical validation of the theoretical model using the SEM (structural equation modeling) approach is presented. The paper concludes with a discussion of the results, managerial implications, limitations of the study and suggestions for further research.

II. Theoretical Background and Research Hypothesis

1. E-commerce risk

In recently years, E-commerce has passed an upgrading process. It needs stability and trust promotion for giving optimal services and more user attraction that it's necessary for continuation of usage.

With the development of information and communication technology in the present era, electronic commerce has become one of the most useful electrical city systems. In recent years and in the field of commerce and business, e-commerce growing trend that despite the public interest, security challenges ahead are significant that in many cases with severe mistrust of the users are facing. The most important uncertainty available in online purchasing process can be noted to risks related to information security, privacy and quality of product and service offerings on the web.

Risk available in e-commerce transaction in different studies and different approaches have been studies that various categories are presented in this regard. In classification has been proposed by Turban and Lee, risks associated with e-commerce transactions are classified into three general categories: Risks associated with seller, Electronic purchase media, Field risk.

E-commerce activities are generally divided into two categories: business-to-consumer (B2C) and business-to-business (B2B). While an