Chapter 53
How Perceived Quality Works in New Technology Adoption Process:
A Cross-National Comparison Among China, Korea and Japan

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ABSTRACT

This study attempts to explore the role of consumer's perception of quality within the new technology adoption process which is given little attention in the field of Information systems. In this regard, the authors developed an exploratory conceptual model in the level of consumer perception by exploring the antecedent of perceived quality. Three factors are introduced as determinants of perceived quality: perceived usefulness, perceived risk and trialability. Moreover, the authors investigate cross national differences among three countries including China, Korea and Japan by estimating our proposed model. An empirical study is conducted with analysis of the adoption mechanism for a new innovative product. Data analysis results support the authors proposed hypotheses, and significant differences are found among the three countries in regards to the new technology adoption process.

INTRODUCTION

Due to limited growth caused by fierce competition, companies are trying to seek new opportunities in the market by investing on new technology development and launching innovative new products (Eng & Quaia, 2009). For the past two decades, the digital revolution has led to huge growth of the new technology products market. Recently, a huge number of new products have been introduced in the market, but not all could be successful as only a few products were capable of meeting the needs of consumers in various market environments (Gourville, 2006). Thus, understanding the new technology adoption process is important to the success of new products. This may be why adoption of new technology has been studied through various kinds of theoretical frameworks. Among those, Innovation Diffusion Theory (IDT: Rogers 1995) has been known as one of the most common models to explain technology acceptance (Pagani, 2004; Nysveen et al., 2005), in that it provides a solid foundation for the examination of the diffusion of new product adoption by presenting 5 dimensions of innovation attributes: relative advantage, compatibility, complexity, trialability and observability. However, for it was originally developed to explain individual's adoption of technology in organization, it tends to focus mainly on the intrinsic characteristics of new technology (Bagozzi, 2007). Indeed, it is consumer behavior theories that have provided evidences for the fact that utilitarian motives are not sufficient to explain consumer behavior toward a product (Childers et al., 2001). Therefore, there need to be an adoption model which reflects the perspective of customers' perception, as customer behavior is generally influenced by the customer's primary attitude toward products. Moreover, in that relatively few attempts have been made introducing a mediators or moderators into previous adoption model to qualify the effects of relationship between variables, as Bagozzi (2007) mentioned, it is also needed to unearth new evidences for such mediators or moderators.

Based on those requirements for research on new technology adoption process as mentioned above, this paper focuses on establishing an exploratory conceptual model for examining the role of perceived quality toward new products. Holbrook and Corfman (1985) suggest that quality acts as a relatively global value judgment. The basic assumption in examining consumers' behavior is value maximization: they make a decision in a way that maximizes their values. In such maximization, perceived quality does an important role since it proposes a value to customers by providing a benefit (Dodds et al., 1991). Since perception on the quality of goods has a strong and direct influence on consumers' choice, it has been regarded also by firms as an essential factor for realization of a competitive advantage (Jang & Namkung, 2009). In addition, Caruana et al. (2000) find that perceived quality of a brand is a consumer's attitude toward a specific brand, which influences the judgment made with the evoked set that make consumers recall of the brand. Thus, making consumers think that innovative products are of good quality results in enhancement of their attitude toward the product and their purchase of it (Teas & Agarwal, 2000). For that reason, perceived quality can be said to be a major drive for customers' general decision making, and in this study our first purpose is to explore the role of perceived quality on new product adoption process as well as investigate the important antecedents of perceived quality such as perceived usefulness, perceived risk and trialability.

Additionally, another topic that requires care regarding new technology applications and adoptions is the trends towards a globalized business environment. Above of all, in the movement toward globalization of markets, the need for cross-country research is increasing (Chau, 2008). Also regarding new technology adoption, as "the creation of a technology does not occur in a vacuum but instead encompasses social and cultural phenomena" (Davison & Martinsons, 2003, p. 163), cultural issues have become an

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