Chapter 7.17
Antecedents of Consumer Trust in B2C Electronic Commerce and Mobile Commerce

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ABSTRACT

Despite the importance of trust in electronic commerce including mobile commerce, there is insufficient theory and model concerning the determinants of consumer trust in business-to-consumer electronic commerce. Thus, the purpose of this chapter is to (1) identify the major antecedents of a consumer's trust in electronic commerce and mobile commerce contexts through a large-scale literature review, (2) develop an integrative trust antecedent reference model summarizing the antecedents of consumer trust, and (3) discuss six categories of mobile applications as future trends of technologies and key issues related to consumer trust area in electronic commerce. In addition, to provide the validity of the proposed reference model, this chapter also proposes a research model derived from the reference model and discusses the constructs of the proposed model in detail. The chapter concludes that building trust is not simply an issue related to consumer-

technology-buyer, but it is a complex issue that involves the interactions of key elements (buyer, seller, third-party, technology, and market environment) at least.

INTRODUCTION

Trust is important in exchange relations because it is a key element of social capital (Mayer, Davis, & Schoorman, 1995), and is related to firm performance, satisfaction, competitive advantage, and other favorable economic outcomes. Trust is identified as an important factor in several literatures, including marketing, behavioral science, and electronic commerce (Beatty, Mayer, Coleman, Reynolds, & Lee, 1996; Czepiel, 1990; Dirks & Ferrin, 2001, 2002; Hoffman, Novak, & Peralta, 1999; Jarvenpaa, Knoll, & Leidner, 1998; Kramer, 1999). According to the study conducted by Urban, Sultan, and Qualls (2000), consumers make electronic commerce (e-commerce) transac-

tion decisions based on trust. Therefore, lack of trust is one of the most frequently cited reasons for online consumers not engaging in exchange relationships with Internet vendors in e-commerce (Lee & Turban, 2001).

Mobile commerce (m-commerce) extends current e-commerce channels into more convenient "anytime, anyplace, and personalized" environment. As an emerging subset of e-commerce, m-commerce faces the same problems troubling e-commerce plus a few of its own due to the limitations of mobile technology (Siau & Shen, 2003). The limitations include restricted computation powers, memory, small screens, low-resolution displays, tiny multifunction keypads, battery life, unfriendly user interface for mobile devices, low bandwidth, unstable network connection, relatively high usage cost, and vulnerability of wireless data transmission. Therefore, building consumer trust in m-commerce is a particularly intimidating task due to the unique limitations of mobile technology.

Since consumer trust plays an essential role in online transactions, it is important to identify antecedents that affect a consumer's trust in e-commerce and m-commerce areas. Several researchers and professionals (Ba, Whinston, & Zhang, 1999; Beatty et al., 1996; Brynjolfsson & Smith, 2000; Czepiel, 1990; Hoffman et al., 1999; Jarvenpaa et al., 1998; Ratnasingham, 1998; Urban et al., 2000) have focused on various issues of trust in e-commerce. Even so, some scholars (Ratnasingham, 1998) have argued that the study of trust has been problematic for several reasons. These include problems with the definition of trust, confusion between trust and its antecedents, difficulties of observing and measuring trust, the tendency of particular disciplines to provide only partial descriptions of trust antecedents, and a lack of specificity about who the parties are (e.g., trustor and trustee) in research contexts in which trust is relevant (Mayer et al., 1995).

This chapter attempts to consider some of the above issues. First, we identify the major

antecedents of a consumer's trust in electronic commerce and mobile commerce contexts through a large-scale literature review, second, develop an integrative trust antecedent reference model summarizing the antecedents of consumer trust, and finally discuss six categories of mobile applications as future trends of technologies and key issues related to consumer trust area in electronic commerce. In addition, this study also proposes a theoretical research model derived from the integrative trust antecedent reference model and discusses the constructs of the proposed model in detail to provide the validity of the reference model.

BACKGROUND: ANTECEDENTS OF TRUST

Trust Antecedents in E-Commerce Studies

Several researchers have tried to categorize antecedents or factors of a consumer trust (Barney & Hansen, 1994; Doney & Cannon, 1997; McKnight, Choudhury, & Kacmar, 2002b; Walczuch, Seelen, & Lundgren, 2001; Zucker, 1986). Zucker (1986) proposed three major ways to build trust: (1) process-based (e.g., reputation, experience), (2) characteristic-based (e.g., disposition), and (3) institutional-based (e.g., third-party certification). Mayer et al. (1995) defined trust as a behavioral intention based upon the expectations of another person. Based on this definition, they proposed a model of dyadic trust in organizational relationships that includes the characteristics of both the trustor and trustee that influence the formation of trust. The three characteristics included in the model, representing the perceived trustworthiness of the trustee, are benevolence, integrity, and ability. Doney and Cannon (1997) developed five distinct trust building processes in business relationships: (1) calculative process (trustor calculates the costs and/or rewards of

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