

Role of Trust in Ecommerce: A Comprehensive Model of Interpersonal and Technology Trust Constructs



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INTRODUCTION

Ecommerce is defined as value based exchanges between two or more parties, such as buying and selling products, services over the Internet which may also include electronic transfer of information between the transacting parties (Chen & Dhillon, 2003; Jarvenpaa, Tractinsky, & Vitale, 2000; Lawrence, Corbitt, Tidwell, Fisher, & Lawrence, 1998; Riggins & Rhee, 1998; Zwass, 1996). Trust is a crucial factor in such internet based online exchanges due to their impersonal nature. Trust reduces social complexity and enables different parties with diverse information bases, beliefs and experiences to collaborate in face to face as well as online economic or social transactional exchanges (David Gefen, 2000; D. Gefen, Karahanna, & Straub, 2003; Lewis & Weigert, 1985; Luhmann, 1979; D. H. McKnight, Choudhury, & Kacmar, 2002). In the context of ecommerce transactions, past research has proposed and tested various forms of interpersonal trust, in initial formation as well as in continuing relationships. (Doney & Cannon, 1997; Lewicki & Bunker, 1995; D.H. McKnight, Cummings, & Chervany, 1998; Meyerson, Weick, & Kramer, 1995; Pavlou & Gefen, 2004; Shapiro, Sheppard, & Cheraskin, 1992). Because of the lack of direct personal interaction between the parties in online transactions and the nature of these transactions, ecommerce is fraught with unique risks (H. G. Lee, 1998). Therefore, extending beyond interpersonal relationships, trust has been extrapolated into the ecommerce technology contexts as well such as trust in online recommendation agents that act on behalf of an ecommerce seller, or, software artifacts that act on behalf of online customers or organizations, and trust in inanimate software artifacts such as spreadsheet software, or antiviral software (D Harrison Mcknight, Carter, Thatcher, & Clay, 2011; Paravastu, Gefen, & Creason, 2014; Ratnasingam & Pavlou, 2003; Vance, Elie-Dit-Cosaque, & Straub, 2008; Wang & Benbasat, 2005, 2007, 2008).

Though the interpersonal trust constructs have been tested extensively in interpersonal contexts such as trust in an ecommerce vendor (D. Gefen et al., 2003; D. H. McKnight et al., 2002), and technology trust constructs in technology contexts (D Harrison Mcknight et al., 2011; Paravastu et al., 2014; Wang & Benbasat, 2007), the combined role of interpersonal and technology trust constructs, and their relative importance has not been tested in the past research. This paper presents a comprehensive review of interpersonal and technology trust constructs as applicable to ecommerce. Based on findings from

past research, this paper proposes a combined model of trust constructs and presents technology trust constructs as external bases of trust as they relate to interpersonal trust. The theoretical and managerial implications are presented.

BACKGROUND

Interpersonal Trust

Interpersonal trust is defined as a relationship between two parties, where one party (trustor) willingly relies on another (trustee) with an expectation that the trustee will not take an opportunistic advantage of the trustor or the relationship (David Gefen, 2002). Even though trust is based on expectations about behavior of the individuals in the relationship which potentially involves risk, trust reduces of perceptions of risk and complexity by making simplifying assumptions about the possible actions of the trustee (Ba & Pavlou, 2002; David Gefen, 2000; D. Gefen, 2003; Jarvenpaa et al., 2000; Luhmann, 1979; D. H. McKnight et al., 2002; Pavlou & Gefen, 2004). In the context of ecommerce, trust is an intention to engage in a certain behavior such as making a purchase (David Gefen, 2000, 2002; D. Gefen, 2003; D. Gefen et al., 2003; D. H. McKnight & Chervany, 2001; D. H. McKnight et al., 2002; D.H. McKnight et al., 1998). Initial trust formation between strangers, such as in an ecommerce transaction is based on attributes of the trustee referred to as trustworthiness beliefs, and external factors known as trust modes, which are explained below.

Past research proposed ability, benevolence and integrity as the set of trustworthiness beliefs about the trustee (D. Gefen et al., 2003; D. H. McKnight et al., 2002). These are relational expectations about the likely actions of the trustee (D. H. McKnight et al., 2002; D.H. McKnight et al., 1998). Ability is a belief about the trustee's skills sets or capability to do what is required of the trustee (Mayer, Davis, & Schoorman, 1995; D.H. McKnight et al., 1998). Benevolence is the belief that the trustee will safeguard the relational interests of the trustor, without indulging in opportunistic behavior (Mayer et al., 1995; D.H. McKnight et al., 1998). Integrity is the set of beliefs about the trustee's adherence to moral or ethical behavioral expectations in the relationship (Mayer et al., 1995; D.H. McKnight et al., 1998).

External factors that are crucial for a trust relationship, are known as trust modes are institutional based trust, calculative based trust, transference based trust and knowledge based trust. Calculative based trust is a scrupulous estimate that each party in a trusting relationship will fulfill their part of the obligations because breach of trust may not be in the best interests of either party (Dasgupta, 1988; Rousseau, Sitkin, Burt, & Camerer, 1998). Each party estimates their own vulnerabilities, and cost of failing their relational obligations, and the probability of the other party fulfilling their part, and options or alternatives available for both parties (Doney & Cannon, 1997). Transference-based trust is based on positive reference about the trustee from a referent in whom trustor has a high degree of confidence. (Milliman & Fugate, 1988; Stewart, 2003; Strub & Priest, 1976). Institutional-based trust is the perception of security in a trust relationship that the expected outcomes, and the remedies for violations are guaranteed by the structural assurances and situational normality built into the relationship (D.H. McKnight et al., 1998; Pavlou & Gefen, 2004; Zucker, 1986). Structural assurances are the remedies available to the parties in the relationship such as formal contracts, guarantees, or legal redress to ensure success of a transactional exchange. Situational normality is the perception that the relationship is similar to other similar trust exchanges, and the favorable conditions exist in the relationship for successful outcomes (D.H. McKnight et al., 1998; Pavlou & Gefen, 2004; Zucker, 1986). Knowledge-based trust is an informed assessment

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