

Short Title up to 8 words

Seller-Buyer Trust In Cross-Border E-Commerce: A Conceptual Model

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Abstract

We conceptualize and propose a theoretical model of sellers' trust in buyers in the cross border e-commerce context. This model is based on by signalling theory, which is further refined by using trust theories and empirical findings from prior e-commerce trust research.

Keywords (Required)

Buyer-Seller Trust, Cross-Border, E-Commerce, Signalling Theory, Trust Theory, Small and Medium Sized.

Introduction

Global online trade is expected to reach \$1.4 trillion by 2015 (Enright 2011). Such a huge electronic market exposes both challenges and opportunities for many businesses, particularly those small-and-medium sized enterprises (SMEs). These SMEs attempt to avoid fierce competition from local players and are actively looking for limitless business opportunities beyond the local markets through cross-border online business. A recent report estimates that there will be more than 130 million cross-border shoppers spending over \$300 billion across the world by 2018 (Anderson 2014). Being compared to the domestic e-commerce, cross-border e-commerce brings lots of business opportunities (e.g. expanding the customer base), especially in the emerging markets. Yet, this international electronic market is far more complicated and risky than both traditional market and domestic electronic market. In cross-border e-commerce, SMEs mainly depend on third-party trading platforms, e.g. eBay or DHgate, and share little information with buyers. The complex, uncertain and risky nature of this market leads to the importance of trust.

Buyers' trust has been identified as a key factor in the electronic commerce (Gefen et al. 2003; McKnight et al. 2002; Pavlou and Dimoka 2006). What is worth mentioning here is that while establishing buyers' trust-in-sellers is the rather important issue for e-commerce success, accomplished online transactions also depend on a seller's trust-in-potential buyers. Indeed, together with the rapid growth of credit card use in e-commerce environment, sellers experience the chargeback risk more frequently. Basically, the chargeback mechanism is created primarily for the online environment to help protect buyers. For instance, buyers can claim a full refund of the money if they are not satisfied with the products or services a seller has offered. Another common reason for filing a chargeback is an unauthorized transaction since a credit card is used without the consent or proper authorization of the card holder (i.e. identify theft). The

chargeback mechanism has played a very active role of stimulating the propensity of conducting trades among SMEs in e-commerce.

However, sellers are left with limited or no industry support. Chargeback fraud, also known as friendly fraud, has been widespread in online trading. When a chargeback occurs, sellers will not only lose the products or services they have offered and but also are subjected to chargeback fees. LexisNexis (2013) reported that merchants have to afford \$1 lost for each \$2.79 sale due to fraudulent transactions. Unlike face-to-face transaction where both the cardholder and card are present and it is the credit card issuing institutions who take sole responsibility in cases of chargebacks, sellers are solely responsible in the online business context. Worse still, some buyers even give malicious negative comments¹. For each transaction, most third-party platforms (e.g. eBay) build a feedback mechanism allowing buyers and sellers can choose to rate each other by leaving feedback. Malicious negative feedback appearing on a seller's accounts will significantly prevent potential buyers building trust in the seller. Eventually, an excessive number of chargebacks and/or malicious negative comments can lead to the termination of sellers' merchant or platform accounts. Given the chargeback and third-party feedback mechanisms and strong customer protection policies, we believe that sellers' trust-in-buyers may provide sellers with high expectation for a successful trading relationship. This is an important issue that has been largely ignored or under-developed in the IS literature. Specifically, we ask the research question: *What are the antecedents of sellers' trust-in-buyers in cross border e-commerce?* Finally, we examine the impact of sellers' trust-in-buyer on sellers' making decisions on trading.

The next section reviews theoretical bases and build a conceptual model of sellers' trust-in-buyer in cross-border e-commerce. The third section describes the research methodology. The final section mentions expected contribution.

Literature Review

Trust in E-commerce

Trust has been studied and defined in the literature in different ways: (1) a set of specific beliefs e.g. the integrity, benevolence, and ability of another party (e.g. Doney and Cannon 1997; Ganesan 1994;); (2) trust intention (McKnight et al. 1998) or the willingness of a party to accept vulnerability based upon positive expectations of the intentions or behavior of another (e.g. Mayer et al 1995; Rousseau et al. 1998); (3) affect reflected in the feelings of confidence and security in the caring response of the other (Rempel et al. 1985); or (4) a combination of these elements (for a review, see e.g. Gefen et al. 2003). From a seller's perspective, we adapt Gefen et al.'s (2003) and define sellers' trust-in buyer as an implicit set of beliefs that the buyer won't act opportunistically and won't take chargeback fraud behavior. Disposition to trust and institution-based trust are two major antecedents of trusting beliefs (McKnight et al, 2002). McKnights et al.'s (2002) web trust proposed that "*trusting beliefs in e-commerce lead to trusting intentions, which in turn result in trust-related behaviors*" (p.336). Note that McKnight et al. (2002) does not consider the influence of familiarity on trust-related behavioral intention, which has been found relatively significant in some studies (e.g. Gefen 2000). Alternatively, McKnight and Chervany (1996) proposed three major categories of trust including interpersonal (personal) trust, institution-based (impersonal) trust and dispositional trust. Familiarity is a sufficient condition for interpersonal trust. For instance, Kim and Kim (2005) indicated that consumers are reluctant to carry out transaction behavior with unfamiliar people because of perceived potential risks, such as fraudulent charges.

Signaling Theory

Information signaling theory originated from information economics research. This theory acknowledges that buyers and sellers possess asymmetrical information when facing a transaction (Spence 1973 and 1974). For example, buyers are not fully informed about the quality of sellers' goods or services, whereas sellers may not know the financial situation of a buyer. Spence (1974) proposed two kinds of information available for market activities indices and signals. The former refers to personal attributes that are

¹ See e.g. http://news.bbc.co.uk/2/hi/uk_news/7689553.stm, or <http://www.hihuadu.com/2015/02/02/secret-taobao-delete-bad-comments-chain-change-an-appraisal-fee-260-yuan-10949.html>

immutable fixed (e.g. age, race and sex) while the later are those personal attributes that are generally thought to be alterable. For instance, an individual can change his/her education background if he/she would like to invest in at some cost in terms of time and money. Such personal attributes of an individual (e.g. indices and signals) collectively constitute his/her image perceived by others. In the cross-border e-commerce context, sellers need to acquire a buyer's information provided by third-party platforms to establish their trust's in the buyer. In this research, indices are buyers' attributes that are inherently fixed (e.g. buyers' country of residence) and signals are characteristics that buyer can potentially change at some costs (e.g. becoming VIP buyer in DHgate). Collectively, indices and signals can influence sellers' trust in buyers. According to information signaling theory, these buyer attributes should influence trust only if they are costly to change (e.g. indices) or acquire (e.g. signals).

Seller's Trust-in-Buyer: A Conceptual Model

In the global e-commerce context, we have developed a conceptual model based on trust theory and signaling theory. Hypotheses are listed in Appendix A

Perceived National Integrity

Buyers' country-of-residence is the most important information released by third-party e-commerce platforms. Based on the information, two buyers' attributes that meet the definition of indices are the levels of national integrity and legal structure in a buyer's country-of-residence. These indices should influence sellers' perceptions of the norms, culture or institutional structures in the buyer's country-of-residence, which in turn affects sellers' trust in the buyer. For instance, Doney et al. (1998) proposed that social norms often prevent individuals from participating in deviant behaviors. Thus, given that a seller perceives that people from a buyer's country-of-residence collectively follow positive behaviors such as honesty, he/she would like to expect the buyer to behave likewise, thereby establishing higher trust.

Integrity is frequently identified as an important component of trust regardless of whether it is used as an antecedent variable (e.g. Mayer et al. 1995) or a trust belief illustrated by McKnight et al.(2002)'s web trust model. In this research, we use the construct perceived national integrity to capture buyers' country-of-residence attributes influencing a seller's institution-based trust formation. The term "national integrity" in this research refers to a broader national level illustrating the extent to which people in a specific country are usually considered to behave in good moral or to adhere to social norms. We propose that the higher the national integrity of a country is, the greater the deterrence of deviant behaviors by the buyer would be expected. In a country with low level of national integrity, deviant behaviors could be more tolerated and not seriously regarded as strange or unacceptable. To some extent, individuals' integrity may be significantly influenced by the level of national integrity. Thus, this leads to H1.

Disposition to trust

Disposition to trust refers to a person's tendency to be willing to depend on others in different contexts (McKnight et al. 1998; Kim and Kim 2005; Gefen 2000). Some people by nature have just a higher inclination that people are in general trustworthy and behavior conform to social norms. Some prior studies also refer to disposition to trust as propensity to trust (e.g. Mayer et al. 1995). We thus propose H2.

Being compared to disposition to trust, institution-based trust means the degree to which one person believes that structural conditions are good enough to support his or her success (McKnight et al. 1998). In the cross-border e-commerce context, due to direct competition among numerous sellers, most sellers have to keep on attracting new buyers to survive. Building institution-based trust may help facilitate transactions between sellers with their new customers to take place. . For that, in this research, two constructs are developed for capturing the impact of institution-based trust on sellers' trust beliefs: credit card payment guarantee and seller-driven certification.

Credit Card Payment Guarantees

Some third-party platforms (e.g. eBay) provide the seller's protection mechanism safeguarding merchants against losing money to chargebacks and reversals so that fraudulent or unlawful buyer behavior will be

mitigated. Prior studies (e.g. Chellappa and Pavlou 2002) propose that buyers could increase their trust in sellers as the existence of third-party protection from opportunistic behavior. We believe such a rule may also be applied to our research setting: Sellers should increase their trust in buyers by following third-party seller protection policies. As a result, this leads to H3.

Seller-Driven Certification

Effective feedback mechanisms can help buyers establish trust in specific sellers (Ba and Pavlou 2002; Houser and Wooders 2006; Lee et al. 2000). Pavlou and Gefen (2004) introduced the notion of buyer-driven certification referring to the extent to which buyers perceive that a feedback system is able to provide accurate and reliable information about a seller's past trading activity. In fact, most third-party online transaction platforms such as DHgate or eBay adopts a mutual feedback mechanism so that sellers may leave opinions about their transactions with buyers as well. Following Ba and Pavlou (2002), we argue that such certification systems can accumulate and disseminate cues about buyers' past performance that may provide sellers with a basis to build trust in buyers. They can be collectively viewed as a surrogate for the reputation of buyers in the marketplace to help build sellers' trust. Buyers' reputation and comments represented by sellers may be viewed as effective indices. This leads to H4.

Past transaction

A buyer's trust in a supplier can be gradually established thanks to the accumulation of information about the supplier (Zucker 1986; Gefen 2000). Such accumulation of information is mainly developed by repeated interactions (i.e. direct transactions) between trading parties. In other words, the number of successful transactions between a buyer and a seller represents the degree of familiarity identified as an important antecedent of trust (Gefen 2000).

Unlike credit card payment, payment gateways such as Western Union and bitcoin do not come with chargeback mechanism. These successful transactions together with zero chargeback payment methods are effective signals that a buyer can obtain to better communicate his or her honesty or integrity to the seller. It is noted that a transaction through credit card payment cannot be considered a successful transaction within six months from the date of purchase because sellers are still subjective to chargeback risks. Thus, this leads to H5a.

Being compared to perceived national integrity which is almost unalterable, the individual's integrity may be adjusted based on the quality of trading. Specifically, the successful number of transactions between a buyer and a supplier is the direct and most effective cue representing the buyer's integrity and honesty. Therefore, we expect a seller will adjust his/her assessment of the buyer's trustworthiness as the successful number of transactions increases. As the successful number of transactions between trading parties increases, perceptions of national integrity should have less influence on the seller's trust. Thus, this leads to H5b.

Consequences of Seller's Trust

Prior studies proposed that trust beliefs could lend to trust-related intentions (McKnight et al. 2002; Gefen & Straub 2004). Adapting McKnight et al. (2002) definition of trusting intentions to our context, we define trusting intentions as a seller's intention to sell products to the buyer who has made an offer for the product. We expect a seller's buyer-selection decision to be related to his/her trust in a buyer. The seller's trust in a buyer provides self-assurance that the buyer could not participate in fraudulent behavior after receiving products or services. Thus, a seller is more likely to receive a buyer's offer (i.e. payment) in whom he or she has more trust. This leads to H6.

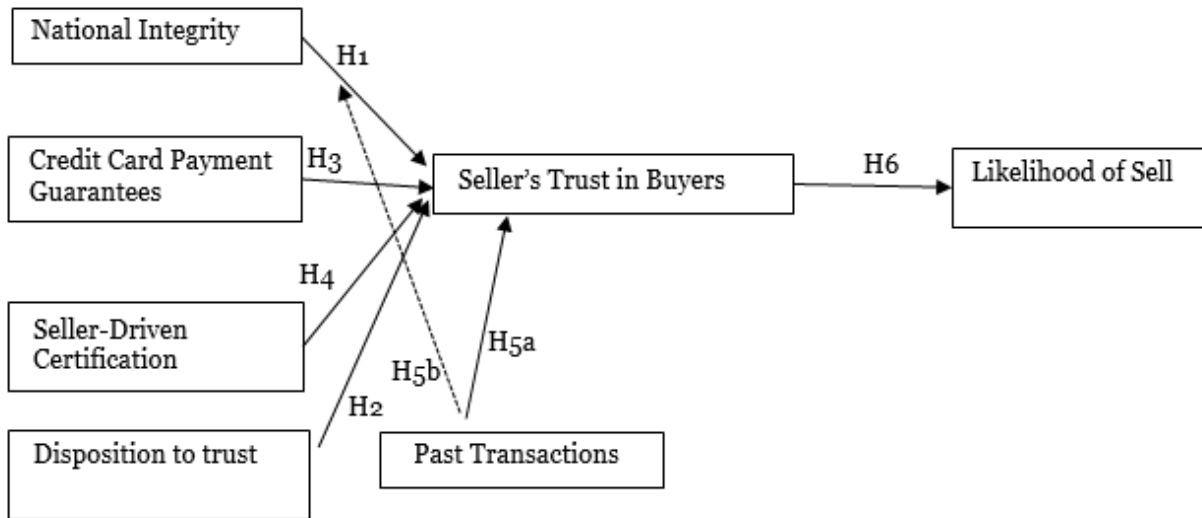


Figure 1: Seller's trust-in-buyer in cross border e-commerce

Research Methodology

In this research, we do not consider third-party platforms (e.g. Alibaba.com) that only support online buyer-seller information exchange and have not integrated with transaction mechanisms. Our proposed hypotheses will be tested with sellers (or suppliers) at DHgate online marketplace. DHgate.com is the biggest e-commerce website connecting mainland China-based SMEs with overseas buyers, where people can order Chinese manufactured products directly through the site. There are many online and offline payment methods available on DHgate.com such as Credit Card, and Western Union. Measurement items are adapted from prior studies. The preliminary instrument was pilot tested in several universities in China, UK and USA for clearness. The items were then modified on the basis of a major pre-test of the survey instrument with a sample of 60 sellers through the same Website-based data collection method as would be applied in the actual data collection. All items are seven-point Likert-type scales (see Appendix B).

Conclusion

Our study is arguably one of the first attempts to develop a theoretical model of sellers' trust in cross-border e-commerce. Theoretically, this study may contribute to the IS literature of online trust. By examining a seller's selling behavioral intention, we may extend general trust research to a relatively new research context. We expect to provide a complementary perspective to current trust theoretical models for a better understanding of sellers' selling behavior. Practically, this study may help third-party platforms understand what induces sellers to receive online payment and sell products to buyers and gain important insights into how to develop an effective online transaction mechanism.

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