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ONLINE SELLERS' TRUST AND USE OF ONLINE AUCTION MARKETPLACES

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Abstract

More and more people sell things online and trust is an important factor in online selling. This research is aimed at understanding the roles of trust in online sellers' continued use of online auction marketplaces. Given the uniqueness of online auction practice, we identify the need for differentiating sellers' trust in the intermediary and in buyers. A balanced view of cognitive and affective trust is incorporated with the Motivational Model of technology acceptance to predict sellers' use of online auction marketplaces.

Empirical data collected from online auction sellers in uBid.com confirmed our model. Specifically, our findings show that, for online auction sellers, (1) trust has both cognitive and affective components; (2) trust in the intermediary (e.g., eBay.com) impacts trust in the community of buyers through the trust transference mechanism; (3) trusting attitudes antecede user acceptance and use factors including perceived usefulness and perceived enjoyment, which in turn influence sellers' intention to return;; and (4) perceived enjoyment is an important antecedent of sellers' retention. Besides theoretical contributions, this research also has practical implications.

Keywords: Trust, Online Auction, Seller, Enjoyment.

1 INTRODUCTION

According to a survey conducted in 2005, 17% of American Internet users – about 25 million people – have sold something online¹. On the other hand, online auction ranks No. 1 for Internet fraud. The National Consumer League (NCL) estimates that there were 30,720 online auction complaints in 2005, causing an average loss of \$1,155. It is noteworthy that not only buyers but also sellers in online auction markets are victims of Internet fraud. As the Professional eBay Sellers Alliance claims, “The integrity [one of the major components of trust] of the eBay marketplace is the single largest issue challenging their [sellers’] businesses on eBay.”²

Apparently, trust is an important issue for online auction sellers. Unfortunately, Information Systems (IS) researchers have paid much attention to buyers while the community of sellers is under-investigated. The necessity of studying seller’s trust can be justified using the two prerequisites of trust: interdependence and lack of control /risk (Gefen 2004; Rousseau et al. 1998). The former refers to online auction sellers’ dependence on intermediaries (e.g., eBay.com) and buyers to complete their business. The latter means that online auction sellers are unable to monitor and control intermediaries’ and buyers’ behavior. What makes seller’s trust more important is that sellers routinely engage with buyers with whom they have little or no prior interaction. About 89% of all seller-buyer pairs conducted just one transaction and 98.9% conducted no more than four (Chong et al. 2003; Resnick and Zeckhauser 2002). Therefore, familiarity with specific buyers — an important building block of trust (Zucker 1986) — is difficult to achieve in the online auction environment.

This research addresses the online seller community by studying the constituent of online sellers’ trust and how it, together with other pertinent factors, determines the seller’s intention to use online auction marketplaces. Specifically, we are interested in three research questions:

1. What is the relationship between affective and cognitive components of sellers’ trust?
2. What is the relationship between sellers’ trust in the intermediary and their trust in buyers?
3. What are the relationships between online sellers’ trust and their use of online auction marketplaces?

2 CONCEPTUAL DEVELOPMENT

Despite its importance, trust is not easy to conceptualize and does not have a well agreed upon definition. The complexity of defining trust has prompted researchers to develop composite trust definitions by looking for the “core characteristics” of trust. In this paper, we are consistent with most of the previous definitions of trust and conceive trust as the *willingness to take risks when uncertainties exist*.

It has been acknowledged that trust has both cognitive and affective components (Johnson-George and Swap 1982; Lewis and Weigert 1985; McAllister 1995; Rempel et al. 1985; Swan et al. 1999; Swan et al. 1988). Cognitive trust is usually referred to as the *beliefs* that others “will not take advantage of the situation by behaving in an opportunistic manner, but, rather, will fulfill their expected commitment” (Gefen 2004, p.264). In this study, we are consistent with the mainstream IS research on trust and adopt the conceptualization of cognitive trust as a set of *specific beliefs* including competence (ability of the trustee to do what the trustor needs), benevolence (the trustee’s caring and motivation to act in the trustor’s interests), integrity (the trustee’s honesty and promise keeping), and predictability (the predictability of trustee’s behavior) (Gefen et al. 2003; Mcknight et al. 1998). On the other hand, trust

¹ PEW Internet & American Life Project: http://207.21.232.103/pdfs/PIP_SellingOnline_Nov05.pdf

² http://www.gopesa.org/inr_stmt.cfm, June, 2006.

also has an affective component, consisting of emotional bonds between trustors and trustees (Lewis and Weigert 1985; McAllister 1995). In this research, we conceptualize affective trust as trusting attitude, defined as *the extent to which one feels secure and comfortable about relying on the trustee*. This definition is consistent with prior trust studies, especially those in information systems research (Komiak and Benbasat 2004; Komiak and Benbasat 2006; Mayer et al. 1995; Swan et al. 1999; Swan et al. 1988).

A seller's trust has different recipients. An online intermediary is a third-party institution that uses the Internet infrastructure to facilitate transactions among buyers and sellers in its online marketplace by collecting, processing, and disseminating information (Pavlou and Gefen 2004; Sarkar et al. 1995). A marketplace includes both the intermediary and trading partners³. Hence, sellers' trust in an online auction marketplace can be further specified into two categories: trust in the intermediary and trust in buyers (e.g., Chong et al. 2003; Pavlou and Gefen 2004; Tan and Thoen 2001; Tan and Thoen 2002).

Trust in the intermediary. Internet intermediaries perform essentially the same functions as traditional markets in matching buyers and sellers, facilitating transactions, and providing institutional infrastructure, but in different ways and with different foci (Giaglis et al. 2002). Intermediaries can help sellers obtain market signals, reduce search costs, discover better prices, deliver products at a lower price, facilitate transaction settlements, and monitor buyers (Bakos 1998; Giaglis et al. 2002). Sellers, on the other hand, need to trust that the intermediary performs these functions honestly, competently, and in the sellers' best interests. Specifically, we adapt Pavlou and Gefen's definition of trust in the intermediary and define a seller's trusting belief in the intermediary as *a seller's subjective belief that the intermediary will institute and enforce fair rules, procedures, and outcomes in its marketplace, competently, honestly, and in the seller's best interest, and if necessary, will provide resources for the seller to deal with buyer opportunistic behavior*. A seller's affective trust or trusting attitude toward the intermediary is defined as *a seller's subjective feeling that relying on this intermediary for conducting business is secure and comfortable*.

Trust in the community of buyers. Sellers also need to trust buyers to complete transactions with competence, benevolence, and integrity. We consider trust in the community of buyers instead of specific buyers. As mentioned earlier, about 89% of all seller-buyer pairs conducted just one transaction and 98.9% conducted no more than four (Chong et al. 2003; Resnick and Zeckhauser 2002). Hence familiarity with a specific buyer, which is a building block for trust (Gefen 2000), is hard to achieve in online auction contexts. Trust in the community of buyers serves as a "generalized trust" (one-to-many), which has been conceived as the major influence on trust in a specific buyer in that community (one-to-one, also referred as "dyadic trust") (Pavlou and Gefen 2004). The emphasis on trust in a trustee community, as opposed to trust in a specific trustee within it, presents "new avenues of research on the topic [of trust]" (Pavlou and Gefen 2004 p.52)⁴. Hence, we define the trusting belief in buyers (the buyer community) as *a seller's subjective belief that online transactions with buyers in a specific marketplace will occur in a manner consistent with his/her expectations of trustworthy behavior*. The seller's trusting attitude toward buyers, on the other hand, is defined as *a subjective feeling that relying on buyers for conducting businesses is secure and comfortable*.

3 THE RESEARCH MODEL AND HYPOTHESES

The Attribute Typology from the marketing literature served as the overarching theory to form the research (Figure 1). In studying consumer judgments and preferences, marketing researchers try to measure the product similarity and consumer's preference by identifying a variety of product attribute

³ We acknowledge that there are more parties involved in an online auction marketplace, e.g., third-party escrow services and credit card guarantees from credit card companies, to name a few. However, these external effects affect people's perceptions indirectly via people's trust in the intermediary or trust in trading partners (Pavlou et al. 2004). In this study, we focus on the most directly related factors, trust in the intermediary and trust in buyers.

⁴ Pavlou et al.'s study was about buyer's trust in the intermediary and the seller community.

descriptors. These descriptors represent three types of product attributes, namely characteristic attributes, beneficial attributes, and image attributes (Lefkoff-Hagius and Mason 1993). Characteristic attributes represent the defining attributes of a product. That is, characteristic attributes indicate how a product can be described and are “product referent” (Cohen 1979). Beneficial attributes are about what the product will do for the user and are task or outcome referent. Unlike characteristic attributes, beneficial attributes bridge the product and user’s needs and are more about the “instrumental” value of the product. Separate from utilitarian benefits, there are also symbolic benefits associated with products. In particular, the image attributes of a product reveal how product use and/or ownership associates the consumer with a group, role, or self-image⁵ (Lefkoff-Hagius and Mason 1993).

We argue that trust factors and user use factors are different types of attributes of online auction marketplaces. Specifically, trust factors are in essence about relying on specific defining characteristics -- the competence, integrity, benevolence, and predictability - of trustees. People form their trust beliefs and attitude based on these defining characteristics of the trustee. Perceived usefulness and perceived enjoyment, on the other hand, are by definition related to using the online auction marketplace as a whole to meet a seller’s needs, that is, the beneficial attributes. The needs can be either extrinsic (usefulness) or intrinsic (enjoyment).

The relative importance of characteristic and beneficial attributes in influencing behavior, as in the Attribute Typology, suggests that perceived usefulness and perceived enjoyment are more relevant to intention to return than trust factors. No matter how high a seller’s trust in the intermediary and in buyers might be, he or she may still not use the online auction marketplace if he or she does not see any benefit from using it. Trust factors, on the other hand, should influence user use factors as suggested by the Attribute Typology. Figure 1 depicts the research model. The relationships in the research model are to be discussed in detail next.

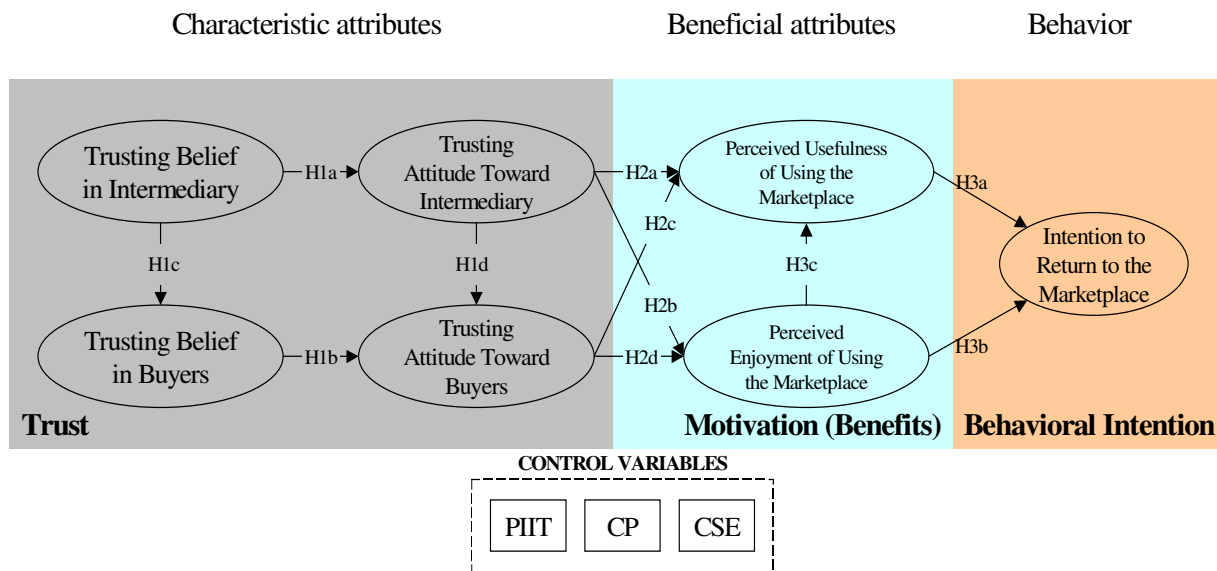


Figure 1: The research model

PIIT: Personal innovativeness in IT; CP: Computer playfulness; CSE: Computer self-efficacy

⁵ We do not focus image attributes because using online auction marketplaces is usually not considered as a typical consumption behavior as in the marketing literature, although we admit that using information systems can have image values [92].

3.1 Relationships among trust factors (H1a-d)

According to the Theory of Reasoned Action (TRA, Ajzen and Fishbein 1980; Fishbein and Ajzen 1975), attitudes toward performing a behavior are determined by the individual's beliefs about the consequences of performing the behavior. Both trusting belief and trusting attitude are about relying on the trustee's specific characteristics including competence, benevolence, integrity, and predictability (Komiak and Benbasat 2006; Mayer et al. 1995; Schoorman et al. 2007). A high trusting belief is likely to lead to favorable trusting attitude. Empirical evidence also supports this causal direction. For instance, Komiak and Benbasat proposed that cognitive trust (trusting belief) significantly influences emotional trust (trusting attitude) (Komiak and Benbasat 2006). McAllister also empirically confirmed that cognition-based trust influenced affect-based trust significantly (McAllister 1995). Therefore, we hypothesize that:

H1a: A seller's trusting belief in the intermediary influences his/her trusting attitude toward the intermediary.

H1b: A seller's trusting belief in buyers influences his/her trusting attitude toward buyers.

Trust in the intermediary is a type of institution-based trust (Pavlou and Gefen 2004). It influences trust in buyers through a trust transference mechanism (Doney and Cannon 1997; Milliman and Fugate 1988). By participating in a trusted marketplace, the community of buyers sends a positive signal about its own trustworthiness (Pavlou and Gefen 2004; Shapiro 1983). Trust is transferred from the better-known party to a closely associated but less-known group or individual (Strub and Priest 1976). As mentioned earlier, sellers deal with strangers for most bids. This indicates that the interaction with the intermediary provides a basis for inferring the extent to which the relatively less known buyers can be trusted.

This transferring effect has also received empirical support. Milliman and Fugate argued that salespersons can use "proof source" to build customer trust. Proof source is defined as "a source separate and apart from the salesperson which is used in the sales presentation to substantiate selling points, benefits and/or claims made by the salesperson" (1988 p.3). Specifically, trust in proof sources can be transferred to or "compensate" the trust in the salesperson (Swan and Nolan 1985). A salesperson from a well-known company that has a good reputation is more likely to be trusted than a salesperson from a less well-known company. In studying buyers' trust in the intermediary and sellers, Pavlou and colleagues proposed and empirically confirmed that buyers' trust in the intermediary informed their trust in sellers in online auction (Pavlou and Gefen 2004). In summary, we argue that this transferring effect exists for sellers too and for both trusting belief and trusting attitude and hypothesize that:

H1c: A seller's trusting belief in the intermediary influences his/her trusting belief in buyers.

H1d: A seller's trusting attitude toward the intermediary influences his/her trusting attitude toward buyers.

3.2 Impacts of trust on user use factors (H2a-d)

Trusting attitudes are proposed to predict perceived usefulness and perceived enjoyment. Information that is more consistent with the pre-existing attitude is more likely to be processed than that inconsistent with the attitude (Fazio 1995). So trusting attitude about the reliability of a specific marketplace is likely to influence the way people collect and process information about using the online auction marketplace to do businesses. When a seller has positive trusting attitudes toward an online auction marketplace, he or she is more likely to find positive information regarding using the marketplace for his or her business than a seller who does not have such positive trusting attitudes. Also, positive trusting attitudes free the seller from being wary of the potential risks associated with doing business in the marketplace and therefore the seller is more likely to enjoy the bidding process. Therefore, we hypothesize that:

H2a: A seller's trusting attitude toward the intermediary influences his/her perceived usefulness of using that marketplace.

H2b: A seller's trusting attitude toward the intermediary influences his/her perceived enjoyment of using that marketplace.

H2c: A seller's trusting attitude toward buyers influences his/her perceived usefulness of using that marketplace.

H2d: A seller's trusting attitude toward buyers influences his/her perceived enjoyment of using that marketplace.

3.3 Relationships among user use factors (H3a-c)

The right side of our research model in Figure 1 is the adapted motivational model that has been well studied (Davis et al., 1992). First, PU has significant effects on intention to return in that when an individual thinks a marketplace is useful, she or he is more likely to have the intention to use it again (for a comprehensive review, see Sun and Zhang 2006). Second, PE influences behavioral intention significantly. The rationale is that individuals who experience pleasure or enjoyment in using an online auction marketplace are more likely to form intentions to return to it (Agarwal and Karahanna 2000; Koufaris 2002; Teo et al. 1999; Van der Heijden 2004; Venkatesh et al. 2003). Third, PE has a significant impact on PU in that it increases the deliberation and thoroughness of cognitive processing and leads to enhanced perceptions of the extrinsic motivation such as perceived usefulness (Bagozzi et al. 1999; Batra and Ray 1986; Venkatesh et al. 2002). Therefore, the following hypotheses stand:

H3a: A seller's perceived usefulness of using an online auction marketplace influences his/her intention to return to that marketplace.

H3b: A seller's perceived enjoyment of using an online auction marketplace influences his/her intention to return to that marketplace.

H3c: A seller's perceived enjoyment influences his/her perceived usefulness of using an online auction marketplace.

4 METHOD

4.1 Survey Administration

Data were collected from uBid.com, one of the major online auction marketplaces. uBid.com was invited and agreed to participate in this study. A contact person at uBid.com sent out the invitation letters to sellers who had previous experience with uBid.com. Three gift cards of \$100 each were raffled off as incentives. As a result, 176 usable entries were obtained. This set comprised the final sample used for data analysis. Among the respondents, 74% were male. The average age was 42 (std.dev=13; range 22-75). 73% of them had more than ten prior bids, indicating they are experienced sellers.

4.2 Measures

Previously validated measures were adopted in this research. Trusting beliefs were measured by items adapted from (Gefen et al. 2003). Trusting attitudes were measured by three items adopted from (Komiak and Benbasat 2006). We revised these items for trusting attitudes toward the intermediary and buyers respectively. Items for measuring perceived usefulness were originally developed by Davis (Davis 1989; Davis et al. 1989) and were adopted by Gefen for user acceptance of e-commerce (Gefen et al. 2003). Three items for perceived enjoyment were adopted from (Van der Heijden 2004). Intention to return had two items adopted from (Koufaris 2002). Four items for personal innovativeness in IT and seven items for computer playfulness were from (Agarwal and Karahanna 2000). Ten items for computer self-efficacy were adopted from (Compeau and Higgins 1995). Table 1 lists items for constructs except those for control variables.

5 DATA ANALYSIS AND RESULTS

Assessment of the research model was conducted using Partial Least Squares (PLS, version 03.00). PLS produces loadings between items and constructs and standardized regression coefficients between

constructs (Compeau et al. 1999). In general, PLS is better suited for explaining complex relationships because it avoids two serious problems: inadmissible solutions and factor indeterminacy (Liang et al. forthcoming). PLS is suitable for this research also because of its explanatory nature (Gefen 2000).

5.1 Measurement Model

The measurement model was assessed in terms of item loadings, item reliability, and discriminant validity. Specifically, item loadings and composite reliabilities greater than 0.70 or greater are considered acceptable (Fornell and Larcker 1981). Average Variance Extracted (AVE) greater than 0.50 for each construct indicates sufficient convergent validity (Barclay et al. 1995). To examine the discriminant validity, we compared the square roots of AVE and correlations. Average variance shared between each construct and its measures should be greater than the variance shared between the construct and other constructs (Compeau et al. 1999). In addition, each measurement item loads much more highly on its latent construct than on any other latent construct (cross-loadings) (Gefen 2002).

Construct	Indicator	Mean	SD
Intention to Return	IR1: How likely is it that you will visit uBid.com again in the future?	6.38	1.25
	IR2: How likely is it that you will sell things again at uBid.com in the future?	6.31	1.28
Perceived Usefulness	PU1: uBid improves my performance in selling products.	4.94	1.72
	PU2: uBid enables me to sell products faster.	4.87	1.62
	PU3: uBid enhances my effectiveness in sales.	4.80	1.82
	PU4: uBid increases my productivity in sales.	4.93	1.75
Perceived Enjoyment	PE1: I find using uBid to be enjoyable.	5.16	1.59
	PE2: Using uBid is pleasant.	5.23	1.58
	PE3: I have fun using uBid.	5.07	1.70
Trusting attitude toward the Intermediary	TAI1: I feel secure about relying on uBid.com for my auctions.	5.83	1.45
	TAI2: I feel comfortable about relying on uBid.com for my auction.	5.77	1.62
	TAI3: I feel content about relying on uBid.com for my auction.	5.46	1.72
Trusting attitude toward Buyers	TAB1: I feel secure about relying on buyers at uBid for my business.	5.06	1.64
	TAB2: I feel comfortable about relying on buyers at uBid for my business.	5.12	1.49
	TAB3: I feel content about relying on buyers at uBid for my business.	5.04	1.65
Trusting belief in the Intermediary	TBI1: I know uBid.com is honest.	5.81	1.60
	TBI2: I know uBid.com cares about its customers.	5.81	1.70
	TBI3: I know uBid.com is not opportunistic.	5.17	1.80
	TBI4: I know uBid.com is predictable.	5.17	1.60
Trusting belief in Buyers	TBB1: I know buyers at uBid are honest.	4.94	1.60
	TBB2: I know buyers at uBid usually care about sellers.	4.44	1.63
	TBB3: I know buyers at uBid are not opportunistic.	4.16	1.65
	TBB4: I know uBid buyers' behaviors are predictable.	4.57	1.57
	TBB5: I know buyers at uBid are capable of doing business.	5.43	1.43
Note: 7 Seven-point Likert Scale was used for all items (1: Strongly disagree; 7: Strongly agree) except for items for intention to return (1: Extremely unlikely; 7: Extremely likely)			

Table 1: Descriptive statistics and loadings

Constructs	CR	AVE	1	2	3	4	5	6	7
1. Intention to return	0.99	0.97	0.99						
2. Perceived usefulness	0.97	0.88	0.54	0.94					
3. Perceived enjoyment	0.95	0.88	0.56	0.81	0.94				
4. Trusting attitude toward the intermediary	0.96	0.89	0.51	0.69	0.69	0.94			
5. Trusting attitude toward buyers	0.97	0.91	0.46	0.58	0.63	0.66	0.95		
6. Trusting belief in the intermediary	0.89	0.68	0.52	0.51	0.61	0.73	0.47	0.83	
7. Trusting belief in buyers	0.92	0.71	0.31	0.42	0.57	0.53	0.72	0.56	0.84

CR: Composite Reliability; AVE: Average Variance Extracted.
 Diagonal Elements are the square roots of the variance shared between the constructs and their measurement (AVE). Off diagonal elements are the correlations among constructs. Diagonal elements should be larger than off-diagonal elements in order to exhibit discriminant validity.

Table 2: Reliability, convergent and discriminant validity coefficients

Individual item loadings for all constructs in the research model are all above the suggested 0.70 (Table 1). The composite reliabilities for all constructs are greater than 0.70 and therefore suggest sufficient reliabilities (Table 2). AVEs are all greater than 0.50 and therefore adequate convergent validities are observed. The square roots of AVEs (diagonal elements in Table 2) are larger than correlations among constructs (off-diagonal elements in Table 2) and the Confirmatory Factor Analysis (CFA) shows the measured items load more heavily on their own latent variables than on other latent variables (Appendix I). Therefore, discriminant validities of the constructs were observed.

5.2 Common Method Bias Test

We conducted a common method bias test following the procedure described in Liang et al.'s article (Liang et al. 2007). Specifically, a new factor called "method" was included in the research model. This method factor included all principle constructs' indicators. Then we calculated and compared each indicator's variances substantively explained by the principle construct and by the method factor. The results show⁶ that indicators' loadings on the principle constructs are all significant at the 0.01 level, whereas most of their loadings on the method factor are non-significant. The variances in indicators explained by their principle constructs (average: 0.827) are much larger than those explained by the method factor (average: 0.008). The ratio of principle variance to method variance is about 103:1. A two-tail paired t test shows that the variances explained by the principle constructs are significantly larger than the variances explained by the method factor ($t= 19.004, p< 0.001$). Given the above results, we contend that the method we used did not contribute substantively to the variances in indicators and therefore was unlikely to be a serious concern for this study.

5.3 Structural Model

The path coefficients and R squares of the dependent variables are shown in Figure 2. All hypotheses are supported except one. Trusting beliefs influence trusting attitudes significantly (H1a, H1b). Trusting

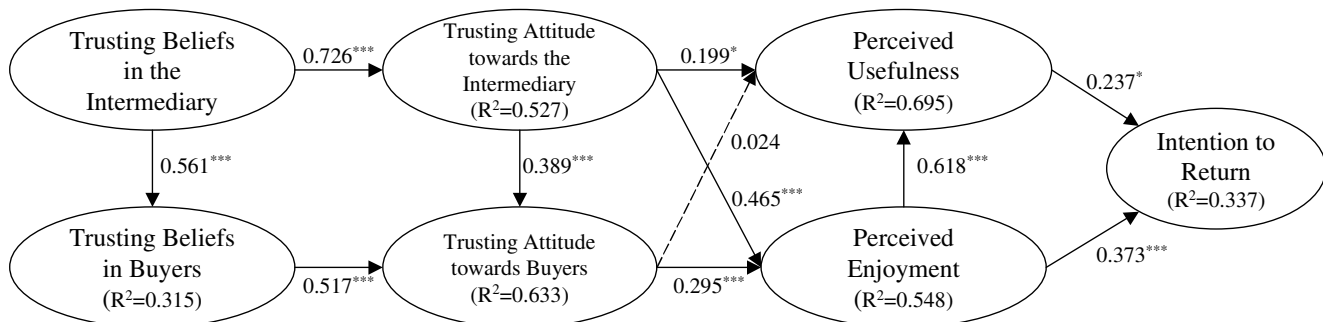
⁶ Due to space limit, the full set of results is not shown in the current paper. Contact the authors for a full description of the common method bias procedure and results.

belief in the intermediary has a significant effect on trusting belief in buyers (H1c), and trusting attitude toward the intermediary has a significant effect on trusting attitude toward buyers (H1d), indicating strong transferring effects.

Trusting attitude toward buyers has a significant impact on perceived enjoyment (H2d supported) but not on perceived usefulness (H2c not supported). Trusting attitude toward the intermediary, on the other hand, has a significant influence on both perceived usefulness and perceived enjoyment (H2a and H2b supported).

Hypotheses 3a-3c are about the motivational model. Perceived usefulness and perceived enjoyment influence a seller's intention to return significantly (H3a-b supported) and perceived enjoyment has significant effects on perceived usefulness (H3c supported).

The research model explains 33.7% of the variance in intention to return, 69.5% of the variance in perceived usefulness, and 54.8% of the variance in perceived enjoyment. Trusting belief in the intermediary alone explains 52.7% of the variance in trusting attitude toward the intermediary and 31.5% of the variance in trusting belief in buyers. 63.3% of the variance in trusting attitudes toward buyers is explained by trusting belief in buyers and trusting attitude toward the intermediary.



Note: PIIT→PU significant at 0.05 level. Other variables have no significant impacts on either PU or PE
 * Significant at $p<0.05$; ** Significant at $p<0.01$; *** Significant at $p<0.001$; dashed line: insignificant at the 0.05 level

Figure 2: The structural model

6 DISCUSSION

Little attention is paid to the community of online sellers, despite the fact that online selling becomes a popular practice and trust is a focal issue for online selling. In this research, we aimed at understanding the conceptualization and composition of online auction sellers' trust and how trust influences online sellers' use of online marketplaces.

It is important to acknowledge the limitations of this study. First, we did not differentiate sellers as individuals and sellers representing organizations. A clear distinction between these two types and studying trust in each group may be of value. Second, we recognize the potential dual role of online auction customers. That is, many sellers may also be buyers. In our study, we asked the subjects to report their own "selling experiences." But it is practically very hard to completely differentiate an individual's selling experience from his/her buying experience. Ideally, a research using all "pure sellers," those who only sell but never buy, would be optimal.

Empirical data confirm all but one (trusting attitude toward buyers → perceived usefulness) relationships proposed in our research model. A number of conclusions can be drawn. First of all, our results confirm

the relationships among trust factors. Trusting beliefs influence trusting attitudes and trust in the intermediary can be transferred to trust in the community of buyers.

Second, our study highlights the importance of seller's trusting attitude in influencing sellers' use factors, which has been inadequately studied in IS research. Although previous researchers have argued that affective trust is "normally most intense in close interpersonal trust" (Lewis and Weigert 1985 p.971) and hence may be irrelevant to business transactions (Gefen et al. 2003 p.60), this research argues and confirms that trusting attitude is important in influencing sellers' use of online auction marketplaces. That is, although it is hard to develop affective trust in a particular buyer, sellers do develop "emotional bonding" with the intermediary and the community of buyers.

Third, our study demonstrates the importance of perceived enjoyment in sellers' use of online marketplaces, with a path coefficient on intention greater than perceived usefulness. Moreover, perceived enjoyment mediates the effects of trust factors on intention to return. This finding challenges several existing findings of the direct relationship between trust and behavioral intention. For instance, it has been argued that trust has a direct impact on behavioral intention (e.g., Gefen et al. 2003; Pavlou 2003). However, we notice that these studies do not consider perceived enjoyment. Instead, their research refers to the Technology Acceptance Model and only includes perceived ease of use together with perceived usefulness. Our findings suggest that if we take perceived enjoyment into account, the direct relationship between trust and behavioral intention may be fully mediated by perceived enjoyment.

The theoretical contributions of the current study are four-fold. First, we defined four types of online auction seller's trust: trusting belief in the intermediary, trusting belief in buyers, trusting attitude toward the intermediary, and trusting attitude toward buyers. We studied and empirically confirmed the strong relationships among these four types of trust. Second, we take a balanced view of cognitive and affective trust. This focus echoes the recent calls for research on affective trust (Komiak and Benbasat 2006). Third, perceived usefulness and perceived enjoyment have a significant effect on users' retention, suggesting the motivational model could also extend into sellers' use of online auction marketplaces. This study is the first that confirms the relationships between trust and perceived enjoyment. Fourth, we study trust issues in a relatively new group of users: online auction sellers who were largely neglected in trust research. To our best knowledge, there is few if any prior IS study focusing on sellers' trust.

There are several practical implications. First, practitioners, especially those who provide services for online auctions, can be informed of the importance and different types of sellers' trust. Marketplaces should promote sellers' trust in the intermediary and in buyers. The intermediary can take certain measures such as introducing third-party institutional mechanisms (e.g., feedback mechanisms, third-party escrow services, and credit card guarantees) to compensate sellers' trust in buyers (Pavlou and Gefen 2004). Moreover, intermediaries should also develop the "emotional bonds" with sellers to promote seller's trusting attitude toward them in that trusting attitude is relatively permanent compared to trusting belief (Kim and Tadisina 2005). Second, enjoyment seems an important factor for sellers. The intermediary should pay attention to mechanisms of promoting sellers' perceived enjoyment. Findings from this research show that trusting attitudes toward the intermediary and the buyers are significant antecedents of perceived enjoyment. A trustable marketplace allows its customer to enjoy using the marketplace. Therefore, promoting customers' trust can be a way to promote perceived enjoyment.

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