

Distinguishing Different Types Of Initial Trust In Online C2C Auction Markets

Selmar Meents, Yao-Hua Tan, Tibert Verhagen

Free University Amsterdam, Information Systems Group, The Netherlands
smeents@feweb.vu.nl, ytan@feweb.vu.nl, tverhagen@feweb.vu.nl

Abstract

Many researchers observe that trust is of importance in online transactions. Most of them have focussed on the trust a buyer has in a seller. In an online C2C auction market, such as eBay, trust in the organization that facilitates the auction is an additional trust relationship that is of importance for the outcome of the transactions. Here we investigate which types of trust relationships are present in an online C2C auction market and which differences exist between these relationships. The focus lies on situations of initial trust, in which parties have not gained experience with each other yet. We present a model of antecedents of initial trust that can be used to analyze these different types of trust relationships. These antecedents are: reputation, formal control structures, disposition to trust and communication.

1 Introduction

Several researchers (e.g. Jarvenpaa and Tractinsky, 1999; Gefen, 2000; Gefen et al., 2003) state that trust is essential in online transactions. Trust in general has been found to be of importance in settings in which parties are confronted with the possibility that another party may behave opportunistically (see e.g. Doney and Cannon, 1997). According to researchers these settings are typical for online transactions, because in an online setting face-to-face contact is impossible. Thus the trustworthiness of another party cannot be verified as easily as in a traditional situation (Pavlou, 2002). Moreover, in an online environment it is easier for parties to behave opportunistically (Jarvenpaa and Tractinsky, 1999).

Most researchers (e.g. Jarvenpaa and Tractinsky, 1999; Gefen, 2000; McKnight and Chervany, 2002) that have studied trust in an online environment have focused on the trust a buyer has in a seller. Such a focus is not surprising when taking into account that most of this research has been conducted in a dyadic Business-to-Consumer (B2C) setting. However, in Consumer-to-Consumer (C2C) transactions that use an online auction site as a transaction medium the setting is quite different. First of all, such C2C

transactions are not dyadic, but triadic in nature. In online auction market relationships more than two parties are present. There are two consumers exchanging information, goods and funds and there is an auction organization facilitating the auction environment. Furthermore, B2C transactions in general differ from C2C transactions in that in most cases in a B2C setting the buyer is the weaker party and has far fewer capabilities to deal with opportunistic behavior of the corporate seller than vice versa. Therefore in B2C research the trust of the buyer in the seller is of greater interest than the trust of the seller in the buyer. In C2C transactions however, the buyer is not necessarily the weaker party. It may very well be that in a certain transaction the buyer has a far stronger position than the seller. For example the buyer may have more financial resources and can thus more effectively arrange a legal backing. In this case the seller may be more vulnerable than the buyer, making the trust of the seller in the buyer an important issue.

Given the above, it can be expected that in an online C2C auction market not only the trust of the buyer in the seller, but also other trust relationships influence the outcome of the transactions. This research therefore aims at giving a systematic comparison of these different trust relationships. This leads to the following overall research question:

What kind of initial trust relationships can be identified in an online C2C auction environment and what are the differences between these relationships?

This paper is structured as follows. In paragraph two the authors describe the theoretical background of online auctions markets, of initial trust, and of its antecedents. In paragraph three the conceived trust relationships and the differences between them are described and a number of propositions are presented.

2 Theoretical Background

2.1 Online Auction Markets

Online auction markets are “networked communities of buyers and sellers who exchange product information, coordinate and transact” (Pavlou and Gefen, 2002). Members of an auction market can use the auction website¹ to buy and sell goods and services. The auction website, associated infrastructures and IT-services are provided by the auction organization, such as eBay® or Yahoo Auctions®. Another important function of an auction organization is that it can provide institutional services that can build trust between buyers and sellers (Pavlou, 2002). These so-called formal control structures will be explained in more detail in paragraph 2.3.2. Figure 1 shows the commercial relationships on an online C2C auction market.

On most auction websites some form of reputation system is provided by the auction organization. This is a system that allows members to post ratings and provide feedback comments about people that they have done business with through that particular auction site. The resulting reputation record, showing a member’s overall rating and the individual comments he got, can be viewed by other members who consider doing business with him. In this study it is assumed that a reputation system is offered by an auction organization.

¹ For example <http://auctions.yahoo.com/> or <http://ebay.com/>

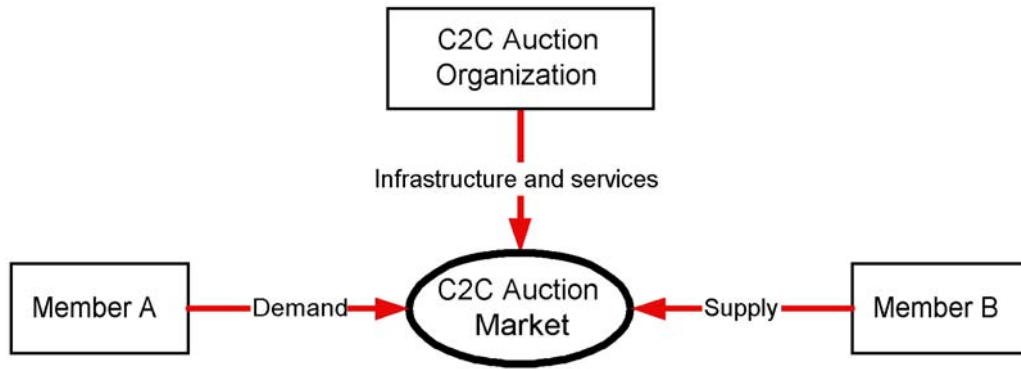


Figure 1: *Commercial Relationships On An Online C2C Auction Market*

2.2 Trust

In many social or economic exchanges people need to depend on others to a certain degree. When being dependent, one makes oneself vulnerable to the potential opportunistic behavior of the other party² (Hosmer, 1995; Doney and Cannon, 1997; Bigley and Pearce, 1998). Opportunistic behavior is defined here as “deceit-oriented violation of implicit or explicit promises about one’s appropriate or required role behavior” (John, 1984, p. 279).

In accordance with similar research in the field of e-commerce (e.g. Gefen, 2000; Gefen et al., 2003), trust is defined here as the belief that “the other party has one or more characteristics beneficial to oneself” (McKnight and Chervany, 2002, p.46) “in a situation in which negative consequences are possible” (McKnight et al., 2001, p.4). When the trustor perceives that the trustee has such characteristics, he will believe that the trustee is trustworthy (Mayer et al., 1995). The trust literature mentions a number of such characteristics, the most prevailing, especially in the field of electronic commerce, being “credibility” and “benevolence” (Gefen et al., 2003). Credibility (see e.g. Doney and Cannon, 1997) means that “the other person (...) fulfills promises” (McKnight and Chervany, 2001, p.6). Benevolence “means one believes the other person cares about one and is motivated to act in one’s interest” (McKnight and Chervany, 2001, p.6). Therefore, when a trustor believes the trustee is benevolent, he believes the trustee will not behave in an opportunistic fashion when contractual restrictions do not apply. (Doney and Cannon, 1997)

2.3 The Antecedents Of Initial Trust

The antecedents of trust in ongoing relationships can differ significantly from those in situations where the trustor and trustee are not yet familiar with each other (Bigley and Pearce, 1998). According to trust researchers (e.g. Zucker, 1986; Doney and Cannon, 1997) experience is a major factor determining the amount of trust that a party has in

² Trust is also often associated with risk. Since the exact relationship between risk and trust is not clear however (Mayer et al., 1995; Hosmer, 1995), in this paper the authors will avoid using the term “risk”. We explore the relationship between risk and trust more fully in other research. See e.g. Verhagen et al. (2003).

another party. After all, when past transaction outcomes have not been problematic, the need to worry about opportunistic behavior of the other party becomes less of an issue. In ongoing relationships experience is a normal condition. Not so however in initial trust situations, where parties do not have a prior mutual history. These parties have not yet gathered meaningful information about each other (Bigley and Pearce, 1998) and need to depend on other ways to verify the trustworthiness of the other party.

Based on their earlier research (McKnight and Chervany, 2002; McKnight et al., 1998) McKnight et al. (2002) mention three antecedents of initial trust in an electronic commerce setting. These are: reputation, formal control structures (in their model called “structural assurance of the Web”) and site quality. In this research two more antecedents are added to McKnight’s model. The reason for doing so is twofold. First of all, McKnight et al. omit an important antecedent of initial trust often mentioned in trust literature, including their own earlier work (e.g. McKnight and Chervany, 2002), namely disposition to trust. This concept is added to the model used in this research. Furthermore, McKnight et al. conceive initial trust as being a form of trust in a situation in which communication between parties does not occur yet. For reasons given later, we do not share this view of initial trust and propose that communication is indeed an antecedent of initial trust.

The model of initial trust presented in this paper differs further from that of McKnight et al. (2002) in that “site quality” is not modeled as an antecedent of initial trust. McKnight et al. argue that in human face-to-face contact first impressions are important in the development of initial trust. In an online environment where such a human interface is not available, a website interface can be an alternative means for getting first impressions of the other party. Just as physical appearance for example can have a positive influence on the way a trustor perceives a trustee in face-to-face contact, so can the appearance of a website in an online environment. A website that is informative and well built could give the trustor the impression that the trustee has certain qualities that make him more trustworthy.

The “site quality” concept is usable in the context researched by McKnight et al., i.e. a B2C electronic commerce setting in which only the trust of a buyer in a particular vendor is addressed. In this case the vendor offers the website that has a particular perceived quality. However, the context of the study presented in this paper is quite different. In an online auction market, as has been mentioned before, one can expect that not only the trust of the buyer in the seller is of importance. Therefore these different trust relationships are investigated and compared in this study. In face-to-face contact the trustor would, to get a first impression, rely on his sensory perception of the particular trustee. Analogously, in an online setting only the website of a particular trustee would have an influence on the first impression of the trustee. Therefore, to compare the influence of site quality on initial trust, in the sense of McKnight et al., each member of the auction marketplace should have his or her own personal website linked to the marketplace. This means that besides the auction organization offering the usual website that enables the auction market, buyers as well as sellers should also have their own personal website, linked somehow by them to the auction market. In reality however most members of auction markets do not have such a linked website, especially not in a C2C setting. Therefore, site quality is not taken into account as an antecedent of initial trust for analyzing auction markets.

The resulting conceptual model of initial trust is presented in Figure 2. In reading the model and the subsequent theory, it is important to note that both initial trust and its antecedents are conceived here as being subjective in nature. Hence, what will be measured is the trustor’s perception of these antecedents.

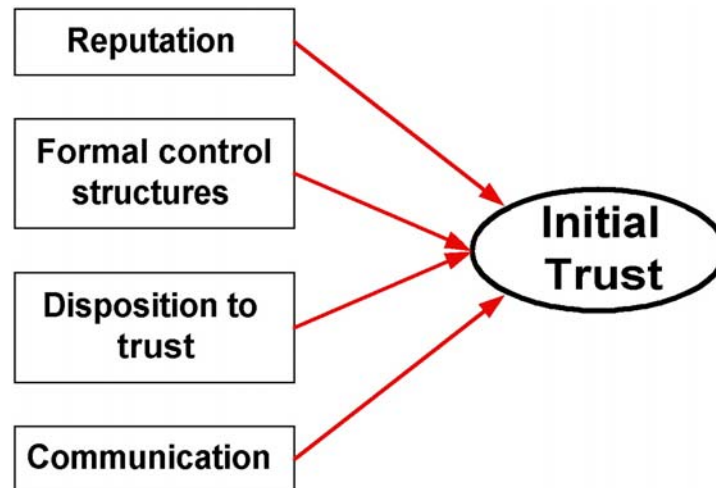


Figure 2: The Antecedents Of Initial Trust

2.3.1 Reputation

According to McKnight et al. (2002) and Zucker (1986) reputation serves as an alternative source of trust in those cases where a party lacks experience with another party. The reputation of the trustee is the accumulated experience of parties that have been engaged in transactions with the trustee, as perceived by the trustor. When the trustor perceives that other parties have experienced overall that the trustee is credible and benevolent, there is less reason for him to believe that the trustee will show untrustworthy conduct in this particular transaction. Therefore, a positive perceived reputation will have a positive impact on the perceived trustworthiness of the trustee (see e.g. McKnight et al., 1998).

Firms can invest in their reputation through their marketing activities (Zucker, 1986; McKnight and Chervany, 2002; Jarvenpaa and Tractinsky, 1999). Because such investments are costly (Jarvenpaa and Tractinsky, 1999), they are an important reason for companies to restrain from displaying untrustworthy behavior. Doney and Cannon (1997) and Jarvenpaa and Tractinsky (1999) note that this is another ground why it is likely that a company with a good reputation will be expected to prove trustworthy in the future as well. It can be expected that the same applies to the non-corporate individuals such as the buyers and sellers in C2C auction transactions who, although not through formal marketing activities, devote time and energy to building their reputation.

Empirical evidence found in B2C research contexts (e.g. McKnight et al.; 2002, Jarvenpaa and Tractinsky, 1999), supports the notion that a good reputation of the trustee has a positive effect on its perceived trustworthiness.

2.3.2 Formal Control Structures

When transaction parties are separated by a social or physical distance, formal control structures are known to be important means of increasing trust between the parties (Zucker, 1986; Shapiro, 1987). In an initial trust phase in an internet environment such a separation is typical. First of all parties are faced with a social distance, because they are

not yet familiar with each other and lack a relationship base. Moreover, the internet environment creates a physical distance between parties, since face-to-face contact is impossible.

According to Zucker there are two categories of these formal control mechanisms. The first category rests “on membership in a subculture, with clear and specific expectations for exchange” (p.61). Examples of mechanisms pertaining to this category are professional certification and joining an industry organization. This type of formal structure increases trust because it sends the signal that other trustworthy parties, i.e. the institutions, have deemed the trustee to be trustworthy and that he was therefore granted the specific membership (McKnight et al., 1998; Pavlou, 2002). Moreover, the institutions have the ability to withdraw the membership and thus punish the trustee when he shows untrustworthy conduct (Shapiro, 1987). The second category consists of intermediary mechanisms and rests “on some form of guarantees that the transaction will take place as promised” (Zucker, 1986, p.61). Regulations, contracts and escrow services for example fit this category. When such mechanisms are in place, they either safeguard the trustor by ensuring that the opportunity for the trustee to behave untrustworthy is constrained or by guaranteeing that when indeed the trustee behaves opportunistically, the trustor will be compensated in a specific way. (McKnight et al., 1998; Pavlou, 2002). When the trustor perceives that such guarantees are present, these have the potential to influence trust positively.

McKnight et al. (2002), based on the work by Zucker (1986) and Shapiro (1987), acknowledge the importance of formal control structures for the building of initial trust and include it in their model. In their interpretation the internet environment is the institution that offers formal control structures, such as legal and technological structures, that can protect the interests of those that operate in this environment. Hence these structures have the potential to increase the level of initial trust between the actors. However, we think this interpretation is too limited for our research. First of all, in their interpretation formal control structures are only defined in terms of the second category of formal control structures as mentioned by Zucker (1986). Moreover, by discussing formal control structures in an internet wide context, they ignore the role of the particular vendor in playing a part in implementing or providing formal control structures. They present the internet as if it were a third party institution. For example, McKnight et al. mention that SSL-encryption of credit card data is a technological formal control structure offered by the internet. Indeed, such technologies are available to the general internet community, but its use depends on a particular website owner. What benefit does SSL offer to online buyers, when it is not implemented by the online vendor? Furthermore, apart from implementing this type of general formal control structures, online vendors may also provide more specific formal control structures themselves. Examples of such structures are guarantees and privacy policies. In earlier work McKnight and Chervany (2002) include these examples in a separate variable called “Web Vendor Interventions”, thereby acknowledging the role of the vendor in constituting the institutional framework of the internet. However, this variable is not used in their most recent work. Given these limitations of McKnight’s interpretation, in this research we opt for a broader definition of formal control structures, such as described by Zucker (1986).

It is important to note that the reputation system that is common on auction markets is not a formal control structure. The structure of this system is offered, regulated and managed by an institution, i.e. the auction organization. However, the reputation system is member-driven (Pavlou, 2002) because the content is supplied by the members, based on their experience and not the experience and judgement of the institution.

The influence of formal control structures on trust in online auction transactions has been researched empirically by Pavlou and Gefen (2002). The results of this study are for the

most part in line with research on offline purchasing situations that reports a significant positive influence of formal control structures on trust.

2.3.3 Disposition To Trust

The psychological view of trust forms an important stream within trust research and has a long tradition (Hosmer, 1995). Psychologists have studied the influence of personality traits of the trustor on the development of trust (Bigley and Pearce, 1998). During one's life a person evolves a so-called disposition to trust if he had an overall positive experience with others (Bigley and Pearce, 1998; Gefen et al., 2003). Disposition to trust is the general tendency to believe that others are trustworthy (McKnight et al., 1998). When the trustor has had positive experiences with trustees in the past, he has less reason to believe that people in general are not trustworthy. This factor is quite stable across situations and people (Mayer et al. 1995).

McKnight et al. (2002) do not model disposition to trust as an antecedent of initial trust. Building on earlier psychological work on trust, they do however include it in their earlier research, in which they related it to initial trust (McKnight and Chervany, 2002) and trust in ongoing relationships (McKnight et al., 1998) alike. Therefore in the research described in this paper, disposition to trust is proposed to be an antecedent of initial trust. This is supported by empirical findings presented by Gefen (2000) that show that disposition to trust is an antecedent of trust in an online purchasing setting.

2.3.4 Communication

Loomis (1959) observed that when people consider entering in a cooperative relationship but have not gained experience with each other yet, communication between them builds trust. The rationale is that communication gives insight into the specific roles that the trustor and the trustee are willing and intend to take during the potential cooperation. This is in line with research of trust in ongoing relationships, in which it was found that communication manages expectations that parties have regarding the other's role obligations (Morgan and Hunt, 1994) and that it coordinates the exchange between those parties (Anderson and Narus, 1990).

McKnight et al. (2002) do not include communication in their model. They do state however that only after engaging in trust related behavior, such as purchasing, and observing the consequences of this behavior, the trustor is able to gain information about the trustee that is meaningful enough to move beyond the initial trust phase. In other words, only after the trustor has gained experience in terms of trust related behavior and has positively evaluated this information, the initial trust phase is over. Since communication is not conceived in their model as trust related behavior, communication itself does not necessarily lead to gaining experience with the trustee during the initial trust phase and should have been added to the model, as has been done in the research described here.

3. Different Initial Trust Relationships

3.1 Initial Trust Relationships

In an online C2C auction environment, involved individuals expect the auction organization to deliver the promised services, because if it does not, these individuals may not meet their own obligations made to the other party in the auction. Therefore, it is expected that if the auction organization is not trusted by the involved individuals, they will not consider doing business using the auction site. This trust relationship is named “trust X” in figure 3.

Since the auction organization offers formal control structures to its members, it can suffer damage if members behave opportunistically. First of all, such behavior of members can ruin its reputation as an institution, when the auction organization is perceived to be negligent in dealing with fraudulent members. Moreover, the auction organization may suffer financially when it offers guarantees and thus has to compensate members that have become a victim of opportunistic behavior. Accordingly, it is anticipated that this organization will only permit people to use the auction site if they have a sufficient amount of trust. This trust relationship is named “trust Y” in the model below.

Trust type Z is the trust between the members that contemplate transacting with each other. Trust is a necessary condition for parties to consider doing business with each other (Doney and Cannon, 1997). The rationale is that the trustor depends on the trustee to deliver the goods under specific conditions both parties agreed on. The vulnerability to opportunistic behavior following from this dependence entails potentially negative consequences. Therefore the trustor will only consider transacting with a trustee that has been deemed sufficiently trustworthy. It is in relationship Z that the auction organization offers its formal control structures to encourage individuals to engage in a transaction. The next figure shows the anticipated trust relationships.

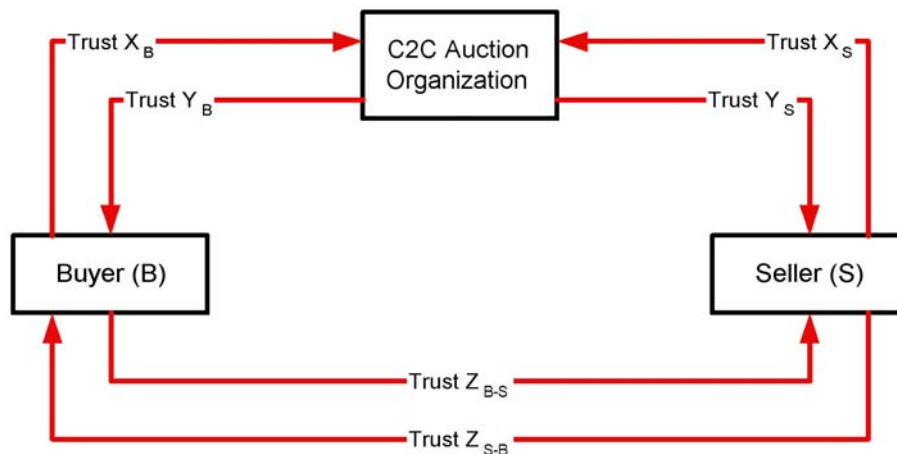


Figure 3: Trust Relationships In An Online C2C Auction Market

3.2 Differences Between Initial Trust Relationships

Each of the trust X, Y and Z relationships in the auction environment reflects a different situation and accordingly different considerations in the decision processes of the trustor. Both relationships X and Y deal with a decision to adopt or accept. In relationship X the consumer considers adopting the auction site for future transactions. In relationship Y the decision of the auction organization to accept a potential member and grant him access to the auctions is central. Relationship Z however deals with a different kind of decision, the decision to participate in a specific transaction. In this relationship the behavioral commitment is far more specific than in relationship X and Y, because in relationship Z both parties enter in an agreement with a fixed timeframe and fixed financial obligations. A failure of a party to meet its obligations in this relationship has very direct consequences. For example, in relationship Z a member can suffer direct financial losses if the other party behaves opportunistically. In relationship X and Y such direct consequences are not present, since these are dependent on the actual transactions taking place on the auction site. It may well be for example that an individual decides to become a member of the auction site but later on decides not to participate in transactions.

Given the above, it is expected that each of the antecedents of initial trust will have a different impact on initial trust in trust relationship X, Y and Z. For the sake of simplicity, in this paper we concentrate on the differences between trust relationship X and Z. Moreover, for now trust relationship subtypes B and S, i.e. the trust of the buyer and the seller, will not be addressed separately. In the near future this work will be expanded. The next paragraphs describe the expected differences in influence of each of the antecedents of initial trust and sum up the research propositions.

3.2.1 The Influence Of Reputation

In relationship Z individuals may consult the reputation system to determine the trustworthiness of the other party. In relationship X such a system does not exist. Auction organizations do not offer a reputation system where members can post feedback comments about the auction organization itself. Nor do institutions outside the auction environment offer any such service.³ In relationship X, the potential member has to rely on whatever kind of reputation-based information it can find about the trustworthiness of the auction organization. This kind of information, for example found on the internet, is far more general than a specific overall rating, often expressed numerically or graphically, combined with comments that are offered by the reputation system. This leads to the following proposition:

Proposition 1: The influence of reputation on initial trust is stronger in trust relationship Z than in relationship X.

³ Although some third party institutions use customer feedback to determine if a party deserves to obtain a trust seal, the overall reputation judgement is in this case still provided by an institution and not directly by customers. Therefore, in the meaning of reputation applied here, these trust seals can be considered to be a formal control structure and not a form of reputation information.

3.2.2 The Influence Of Formal Control Structures

In relationship Z both parties make very specific behavioral commitments and agreements. When the trading party does not meet its obligations this can have more direct and severe consequences than in relationship X. Ways to ensure that both parties behave in the agreed fashion or to compensate the party that becomes a victim of opportunistic behavior, accordingly are of greater importance in relationship Z than in relationship X. Therefore it is proposed that in relationship Z formal control structures have a stronger influence than in relationship X:

Proposition 2: The influence of formal control structures on initial trust is stronger in trust relationship Z than in relationship X.

3.2.3 The Influence Of Disposition To Trust

Trust literature suggests that the disposition of an individual to trust is quite stable across situations and people it is confronted with. Thus it is expected that:

Proposition 3: The influence of disposition to trust on initial trust is not significantly stronger or weaker in trust relationship Z than in relationship X.

3.2.4 The Influence Of Communication

Communication serves as a coordination mechanism in an exchange relationship. Where procedures dictated by a third party, such as the auction organization, are formal control structures, communication serves as a more informal, dyadic form of constructing procedures. It can be expected that communication has a bigger impact in those cases where such procedures are more needed. As was outlined above, role behaviors are more specific in relationship Z than in X. Hence, procedural specifications are of more importance in relationship Z, leading to:

Proposition 4: The influence of communication on initial trust is stronger in trust relationship Z than in relationship X.

4 Conclusion

In this paper we have discussed that three different types of initial trust relationships can be identified in an online C2C auction market. These relationships, labeled X, Y and Z, differ in the way initial trust is built. To analyze these differences, we used a model of antecedents of initial trust. These antecedents are: reputation, formal control structures, disposition to trust and communication. Based on this discussion, we presented a number of propositions.

In subsequent research we will empirically test the propositions presented in this paper. This empirical stage of our research will have multiple phases. First we will undertake an exploratory research by interviewing members of two leading Dutch auction markets, one of which will be eBay.nl. Final empirical testing will be in the form of questionnaire-based survey research. The questionnaires will be distributed among members of the two

auction markets. We intend to use already existing measurement scales for our surveys. For example for reputation we will use Jarvenpaa and Tractinsky (1999), for formal control structures Pavlou (2002), for disposition to trust Gefen (2000) and for communication Morgan and Hunt (1994).

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