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1 Introduction

For centuries, wherever possible and suitable, people have met in physical locations to engage in transactions to exchange goods and services for other goods and services or currency (Ellison and Ellison, 2005). In the last decennia, the evolution and diffusion of Information Technology (IT) in general (Kambil and Van Heck, 1998) and the Internet in particular (Lee et al., 2006) have given rise to so-called *electronic marketplaces*. Such electronic marketplaces, also referred to as *electronic market systems*, are IT-enabled, digital equivalents of the aforementioned physical marketplaces in which buyers and sellers can meet (S.S. Rao et al., 2007). Predicated on the existing literature (e.g., Bapna et al., 2004; Cheng et al., 2006; Lancastre and Lages, 2006; Pavlou, 2002), a C2C electronic marketplace is defined in this paper as an environment located on the Internet that is supported and enabled by a combination of IT and various services, procedures and regulations offered by a third-party intermediary, in which consumers can meet and engage in exchange-related behavior.[1]

Recent years have shown an overall increase in the popularity of these transaction platforms (Lee et al., 2006). This especially applies to so-called *consumer-to-consumer (C2C) electronic marketplaces* (Lin et al., 2006), of which eBay, Yahoo! Auctions, Amazon Auctions and Amazon Marketplace are the chief international contenders (H. Zhang and Li, 2006). For example, eBay's total number of product listings grew from 971 million in 2003 (eBay annual report 2005) to 2365.3 million in 2006 (eBay annual report 2006). In addition, the number of confirmed registered eBay users increased from 94.9 million in December 2003 (eBay annual report 2005) to 221.6 million in December 2006 (eBay annual report 2006). In general, C2C electronic marketplaces are expected to develop into one of the most successful forms of online retail, accounting for a considerable proportion of future online retail sales (Zhang and Li, 2006).

The rising popularity of C2C electronic marketplaces (C2C EMs) is reflected in accumulating scientific research on such exchange environments. One area of research that has received increasing attention is trust. Given the risk of opportunistic behavior on the part of sellers (Ba and Pavlou, 2002; Pavlou and Dimoka, 2006; J. Zhang, 2006), trust is said to be a crucial factor for purchasing in C2C EMs (Pavlou and Gefen, 2004). Empirical explorations

[1] Following Pinker et al. (2003), it is acknowledged that in practice many smaller companies also regularly use C2C electronic marketplaces. Therefore, in this paper electronic marketplaces are labeled as C2C electronic marketplace if they facilitate a *substantial* number of transactions between consumers.

conducted so far provide strong support for this claim (see e.g., Pavlou and Gefen, 2004, 2005; Verhagen et al., 2006). Next to underlining the relevance of trust as online purchase determinant, scholars have recognized that the nature of purchasing in online stores does not hold for purchasing in C2C EMs. As on online store websites, sellers enable purchases in C2C EMs by providing buyers with functions and services such as selecting and describing products and offering contact and shipping information. What sets C2C EMs apart from online stores is that the sellers as well as buyers are consumers in C2C EMs. In addition, many sellers are active on these websites, as opposed to an online store setting in which merely one seller is present. The most striking difference, however, is that transactions in C2C EMs are not dyadic in nature but rather triadic since not only a buyer and seller are involved in each transaction, but also a third-party intermediary. This intermediary, i.e., a company such as eBay, enables the transaction platform by for instance providing the technological infrastructure, facilitating information provision and search, enabling (secure) communication between users on discussion boards or using online forms, regulating the environment and building trust among EM participants. Without these functions and services provided by the intermediary, sellers would not be able to offer their own functions and services and buyers would not be able to buy or interact. As such, an effective and efficient functioning of a C2C EM not only depends on the proper behavior of sellers, but also on that of the intermediary.

The co-involvement in each transaction of both the seller and the intermediary and their essential role in the functioning of the transaction platform imply that consumer purchasing in C2C EMs is not only affected by trust perceptions of the seller but also by trust perceptions of the intermediary. In the literature this has been acknowledged by introducing the concepts of seller trust (trust in the population of sellers) and intermediary trust (trust in the intermediary operating the system) (cf. Pavlou and Gefen, 2004, 2005). Research findings demonstrate that seller trust is likely to function as direct determinant of consumer purchase attitudes and consumer purchase intentions, whereas intermediary trust can be labeled as seller trust determinant (Pavlou and Gefen, 2004, 2005; Verhagen et al., 2006).

While the relevance of trust in C2C EM settings has been widely recognized, relatively little attention has been paid to the role of the intermediary and sellers in generating trust. Extant research findings in other settings (e.g., Koufaris and Hampton-Sosa, 2004; K.J. Stewart, 2003; Yousafzai et al.,2005) suggest that perceptions of the other party's behavior and of the

environment in which the interaction with this party takes place are among the most important determinants of this party's perceived trustworthiness. Arguably, C2C EM environments have many elements and aspects, and the sellers and the intermediary, whose functions and services are indispensable for the operation of these platforms, show many behaviors. Yet, the question which of these do indeed influence trust in C2C EMs remains to a large degree unanswered. So far, among the already few antecedents of trust in the sellers that seem to have been investigated empirically, only two factors concern the C2C EM context and the behavior of parties active therein. These two factors are the provision of formal control, i.e., protective and regulatory measures (e.g., Pavlou and Gefen, 2004, 2005), and psychological contract violation (e.g., Pavlou and Gefen, 2005), i.e., "a buyer's perception of having being [*sic.*] treated wrongly regarding the terms of an exchange agreement with a seller" (Pavlou and Gefen, 2005, p. 375). While a focus on such a confined set of antecedents can be understood when taking into account the objectives of the mentioned studies and the ambit of the models investigated therein, it does limit our understanding of how sellers and the intermediary may affect the formation of trust in sellers. Still, the empirical examinations do indicate that the investigated contextual factors and the behavior of sellers and the intermediary generally influence trust in C2C EMs. As such, although in themselves and even combined they provide a fairly modest insight into the factors that determine trust in sellers in C2C EMs, they provide an interesting and solid basis for further research thereon. The same cannot be said about research on the determinants of trust in the intermediary. Videlicet, whereas at least some determinants of trust in sellers in C2C EMs have been studied, no study appears to have explored the antecedents of trust in the intermediary so far. This is not only surprising given the essential role of the intermediary in a C2C EM, but also since both the literature on trust in offline settings (Shapiro, 1987) and on trust in EMs (Ba and Pavlou, 2002; Pavlou and Gefen, 2004) have actually stressed the importance of such studies.

The fact that existing studies of trust in C2C EMs are relatively limited in scope restricts our comprehension of the factors that influence this notion. This restriction is aggravated, however, by the fact that the insights from the vast total amount of research produced on trust in offline and online settings in general do not directly apply to C2C EMs, at least not without additional validation. The underlying rationale is that the nature of trust in a particular situation, the factors that determine this phenomenon, and the size and types of effects it has are dependent on things like the required actions, the stakes and the other party involved in this situation (Mayer et al.,

1995; Smith and Barclay, 1997). This impedes a generalization of existing findings of offline and online trust studies, regarding the specific antecedents of trust and their exact impact, to C2C EMs.

Given the above, the main overall aim of this study was to explore the relationships between buyer's perceptions of the C2C EM context and of the behavior of the parties active in such a context on the one hand and buyers' trust in these parties on the other. More specifically, based on prior studies of trust in other online settings (e.g., Bart et al., 2005; Gefen et al., 2003; Hampton-Sosa and Koufaris, 2005; McKnight et al., 2002b), it focused on investigating how seller trust and intermediary trust are impacted by buyers' perceptions of the function- and services-related behavior of sellers as well as the intermediary and of two elements of the C2C EM context, namely the earlier mentioned formal control mechanisms, and website characteristics. Since perceptions of the other party and of the online context are typically interrelated (Pavlou, 2003) and may be so intertwined that they are inseparable (Gefen et al., 2003), in this research together these four perceptions were united into a single, though multidimensional construct referred to as *electronic marketplace quality* (EMQ).

This paper is structured as follows. First, paragraph 2 delineates the theoretical framework on which the empirical study was based as well as the hypotheses that were tested therein. Then, the design of the conducted empirical research is described in paragraph 3. Thereupon, paragraph 4 presents an overview of the results of this research. The paper is concluded in paragraph 5, in which the main research findings, the theoretical contributions, the implications for practice, the limitations of the conducted study and some pointers for future research are discussed.

2 Theoretical framework

This paragraph briefly describes the theoretical framework on which our empirical study was founded. It starts with a description of how trust was interpreted in this study (paragraph 2.1). This is followed by an explanation of the importance of trust in C2C EM settings (paragraph 2.2). Next, the EMQ concept is briefly elucidated (paragraph 2.3). Finally, the hypotheses that were tested empirically are presented (paragraph 2.4).

2.1 Conceptualizing trust in C2C EM settings

As was noted in the above, when studying purchase behavior in a C2C EM, three parties have to be taken into account, namely the buyer, the seller, as well as the intermediary operating the exchange system. In this context, consumer purchase behavior is not only affected by perceptions of trust associated with the selling party, but also by perceptions of trust associated with the intermediary. Consequently, and based on prior research, two forms of trust were distinguished in this empirical study, namely seller trust and intermediary trust. The next subparagraphs elucidate these forms of trust as conceptualized in this study, and the differences between these concepts.

2.1.1 Seller trust

Seller trust reflects perceptions of trust in the counterpart of the transaction. This type of trust has been proposed and found to be of importance in both offline (e.g., Crosby et al., 1990; Doney and Cannon, 1997; Schurr and Ozanne, 1985; Smith and Barclay, 1997) and online purchase settings (e.g., Gefen et al., 2003; Malhotra et al., 2004; McKnight et al., 2002a; Pavlou and Fygenson, 2006). Yet, C2C EMs and other online purchase settings, such as online stores, differ in two main ways. First, as opposed to online stores, more than one selling party is active in C2C EMs. Second, in such EMs buyers ordinarily engage in transactions with mostly unknown sellers (Pavlou and Gefen, 2004, 2005) without a brand name (Ba and Pavlou, 2002; Pavlou and Dimoka, 2006). Consequently, following Pavlou (2002) and Pavlou and Gefen (2004, 2005), the studied target of seller trust is the general population of sellers in the C2C EM.

In the majority of studies of both offline and online settings, trust was conceptualized as a state of mind, consisting of one or more beliefs, expectations or feelings of confidence. More specifically, according to many authors this state of mind reflects the trustor's perceptions of whether the trustee will behave as expected (e.g., Anderson and Narus, 1990; Ba and Pavlou, 2002; Gefen, 2000; Hart and Saunders, 1997), without exploiting the trustor's vulnerabilities (e.g., Barney and Hansen, 1994; Dyer and Chu, 2003; Gambetta, 1988; Ridings et al., 2002). In addition, most scholars who have interpreted trust as a state of mind refer to it as one or more beliefs. Accordingly, for the purposes of the empirical study reported in this paper, seller trust was defined as the buyer's belief that the general population of sellers in a C2C EM will act

cooperatively to fulfill his expectations without exploiting his vulnerabilities (cf. Pavlou and Fygenson, 2006; Pavlou and Gefen, 2005).

Scholars increasingly recognize the multidimensional nature of offline trust as well as online trust. Still, the literature provides no standard or universally applicable set of conceptual trust dimensions. According to such scholars as Bhattacherjee (2002), Pavlou and Fygenson (2006) and Smith and Barclay (1997), the constitution and impact of particular dimensions of trust are context specific. Based on an analysis of the literature on offline trust and on our earlier empirical research (Verhagen et al., 2006), online trust and trust in EMs, two disparate dimensions of trust were deemed to both reflect the content domain of the trust literature and capture the meaning of trust in C2C EMs. These two dimensions were reliability and dependability (cf. Pavlou and Gefen, 2004). Reliability concerns the trustor's belief that the trustee will live up to his commitments (Dyer and Chu, 2003; Hart and Saunders, 1997; Johnson-George and Swap, 1982; Zaheer et al., 1998). Dependability means that the trustor believes that the trustee will help or assist him when needed and that the trustee has a sense of responsibility (Johnson-George and Swap, 1982). Thus, in contrast with reliability, dependability may also apply to circumstances for which the trustee did not make any specific obligations. In short, the general population of sellers in the C2C EM is perceived to be trustworthy when it is believed to be reliable and dependable.

Although the aforementioned interpretation of dependability is somewhat related to what has been referred to as benevolence (see e.g., Das and Teng, 2001; Kumar et al., 1995a,b; Mayer et al., 1995; Sirdeshmukh et al., 2002), these beliefs should not be confused. Even given that benevolence has been interpreted in different ways, in general scholars tend to agree that it involves the trustee's genuine care about the trustor. This genuine care aspect of trust, however, was not included in the conceptualization of seller trust. For benevolence to be perceived and play a role in an interaction, the involved parties should have made emotional investments in the interaction (Lewis and Weigert, 1985a, b; McAllister; 1995), have gained enough experience with each other (Mayer et al., 1995; McKnight and Chervany, 2002; Rousseau et al., 1998), and be specific and identifiable and their behavior visible (Mayer and Davis, 1999; Sirdeshmukh et al., 2002). Arguably, these conditions are not typical of a buyer's transactions with the general population of sellers in C2C EMs. First, such economic interactions have been said to lack the necessary emotional investments (cf. Lewis and Weigert, 1985a; Rousseau et al., 1998). Second,

the experience necessary as a basis of the trustor's belief that the trustee genuinely cares about him is difficult to be gained with an aggregated party such as the general seller population (Walczuch and Lundgren, 2004), which is a faceless and impersonal entity of mixed and ever-changing composition (Lin et al., 2006), consisting of numerous sellers (Ba and Pavlou, 2002; Pavlou and Gefen, 2004) who can easily change identities (Hu et al., 2004; Zacharia et al., 2000; J. Zhang, 2006). Finally, the general population of sellers as a large group of people is not a specific and identifiable party (cf. Mayer et al., 1995) and, given its aggregated character as well as the nature of the Internet, its behavior is not easily observable, if at all. In sum, the genuine care aspect of trust does not readily apply to transaction dealings in C2C EMs.

We acknowledge that other dimensions of trust have been proposed in the literature on offline and online trust. Two of such dimensions, which have been suggested often, are predictability and competence. Following such studies as Pavlou and Fygenson (2006), Mayer et al. (1995) and Suh and Han (2003), predictability was not seen as a separate dimension of trust in the general population of sellers in a C2C EM. The rationale was that the trustor's perception that the trustee is predictable is not in itself an indication of trustworthiness since it may also apply to negative behavior, and that instead predictability can be seen as seen as a necessary element of the other dimensions of trust (cf. Mayer et al., 1995). Moreover, competence was not conceptualized as a disparate dimension of trust (cf. Doney and Cannon 1997; Ganesan, 1994; Pavlou and Dimoka, 2006), although it has been said to be somehow associated with reliability (Morgan and Hunt, 1994; Zaheer et al., 1998).

2.1.2 Intermediary trust

Next to seller trust, intermediary trust has been posited to be relevant in C2C EM settings (Pavlou and Gefen, 2004, 2005). This form of trust, which has also been referred to as trust in the guardians of trust (Ba and Pavlou, 2002; Pavlou and Gefen, 2004; Shapiro, 1987), concerns the perceived trustworthiness of the intermediary operating the C2C EM. As was mentioned before, this intermediary, as a formal authority managing the exchange network, provides many functions and services, ranging from aggregating buyers and sellers to facilitating the market by lowering costs and matching buyers and sellers. Still, one of its most important roles is to protect buyers and sellers from opportunistic behavior of other participants and generate trust in sellers

by acting as a so-called agent of trust (Pavlou and Gefen, 2004). In its institutional role as agent of trust, the intermediary may apply a number of formal control mechanisms, such as monitoring, accreditation, contracts, guarantees, regulations and feedback systems. Regarding this latter role, which is the focus of this study, the term *intermediary trust* is used. In accordance with the literature on the definition and dimensionality of trust (see above), intermediary trust was defined in this empirical study as the buyer's belief that the intermediary is reliable and dependable, and will thus act cooperatively to fulfill its expected institutional role as agent of trust and ensure the trustworthiness of the sellers in the C2C EM. As in the case of seller trust, this conceptualization excludes both predictability and competence, for the reasons mentioned in the previous subparagraph. Moreover, benevolence in the sense of the trustee's genuine care about the trustor was not included for two reasons. First, interactions between individuals and institutions that impose formal control mechanisms to control and protect these individuals lack the necessary emotional investments (Lewis and Weigert, 1985a). Second, as was mentioned, for the genuine care aspect of trust to be relevant, the trustee needs to be specific and identifiable and his behavior visible. According to Doney and Cannon (1997) these conditions do not apply when the trustee is a company, such as the intermediary operating the C2C EM.

Although the intermediary applies formal control mechanisms to ensure the trustworthiness of sellers who are active in the C2C EM, the appropriate target of intermediary trust is the intermediary and not the formal control mechanisms themselves. The rationale is as follows. Trust is a phenomenon that is only pertinent to a situation in which a party is vulnerable to the conduct of an entity that might abuse this vulnerability. Inanimate items, such as formal control mechanisms, however, cannot intentionally behave in such an abusive manner of their own accord. Therefore, following Friedman et al. (2000), Rosenbloom (2000) and Shneiderman (2000) and in line with the largest portion of offline as well as online trust studies, individuals can put their trust in the party that manages, offers and applies the formal control mechanisms, but not those mechanisms themselves. Consequently, intermediary trust should be distinguished from what McKnight and Chervany (2002) referred to as *institutional trust* and Tan and Thoen (2001, 2002) as *control trust*, concepts that both have been interpreted as the buyer's trust in the protective measures offered by certain parties.

2.2 The importance of trust in C2C EMs

EM exchanges are computer-mediated in nature, thereby separating partners to these exchanges (Lancastre and Lages, 2006; Pavlou, 2002; Pavlou and Dimoka, 2006), making it easier for them to behave opportunistically (Ba and Pavlou, 2002; Hu et al., 2004). Accordingly, scholars contend that trust is essential in B2B, B2C and C2C EMs. Indeed, a recurrent theme in the literature on EMs is that having concerns about opportunistic behavior and thus a lack of trust is one of the main reasons for parties refraining from both adopting EMs (e.g., Hsiao, 2003; Kalvenes and Basu, 2006; Lin et al., 2006) and transacting with particular sellers on these platforms (e.g., Pavlou and Gefen, 2004, 2005). According to the literature, opportunistic behavior especially abounds in C2C EMs (Hu et al., 2004; Pavlou and Gefen, 2004), with the number of swindle incidents even increasing (Antony et al., 2006; Ba et al., 2003; J. Zhang, 2006).

According to the literature, sellers in C2C EMs may swindle buyers in multiple ways. Sellers may not to live up to the agreement and refuse to sell the product in the end (Pavlou and Gefen, 2005; Zacharia et al., 2000). Even those sellers willing to sell the product, however, may behave opportunistically by demanding a higher price than was agreed upon in an earlier transaction phase (Zacharia et al., 2000) or by refusing to accept a payment method that they originally approved (Pavlou and Gefen, 2005). Another form of opportunism on the part of vendors involves these parties accepting the payment that was agreed upon in terms of the monetary value and the payment method without actually providing the buyer with a product (Ba and Pavlou, 2002; Pinker et al., 2003). Still, sellers that do send a product after receiving the payment may deliberately ship a product that differs from the one that was advertised (Chua et al., 2007; Pinker et al., 2003), for example because they purposefully provided incomplete or incorrect product information in the advertisement (Pavlou and Gefen, 2005; Zacharia et al., 2000). Sellers who do eventually send the appropriate product, may swindle by only sending it after a considerable delay, by not using the promised shipping method (Ba and Pavlou, 2002; Pavlou and Gefen, 2005), by charging higher shipping or handling costs (Chua et al., 2007) or by not acting in accordance with the offered guarantees when a product is returned (Pavlou and Gefen, 2005).

Clearly, such opportunistic seller behavior is not only observable in online C2C EMs, but also in online purchase settings in general (see e.g., Cho, 2006a; Gefen et al., 2003; Pavlou,

2003). Still, buyers are even more exposed to such behavior in C2C EMs due to two attributes of such settings. First, C2C EMs differ from other online purchase settings, such as online stores, in that buyers rarely transact with the same vendor more than once and thus commonly engage in transactions with mostly unknown sellers (Pavlou and Gefen, 2004, 2005) without a brand name (Ba and Pavlou, 2002; Pavlou and Dimoka, 2006). Without (hardly) any prior experience with particular sellers, it is more likely that buyers engage unexpectedly in transactions with deceitful sellers. Second, C2C EMs are typically characterized by a large number of sellers (Ba and Pavlou, 2002), whose identities are very easy to be created and changed (Zacharia et al., 2000; J. Zhang, 2006) and thus may not be verified by the intermediary (Hu et al., 2004). These identity-related issues increase the likelihood of opportunistic behavior since they make it more difficult for buyers to establish the true identity of the other party and thus his trustworthiness (Ba and Pavlou, 2002; J. Zhang, 2006). Moreover, given the ease with which identities can be created or changed, sellers face less risk of ruining their reputation and are thus less inclined to refrain from cheating buyers (Ba et al., 2003).

In sum, opportunistic behavior of sellers is even more probable in C2C EMs than in online purchase settings in general. Given the chance of such seller behavior, buyers may be confronted with feelings of anxiety, thereby making their adoption or purchase decisions rather complex. Still, trust may reduce or even nullify such feelings and the related decision complexity. Trust in C2C EM settings entails the buyers' impression that the intermediary as well as the sellers, whose behavior cannot be fully predicted or controlled (e.g., Gefen et al., 2003; Mayer et al., 1995), will behave as expected (Pavlou and Gefen, 2004, 2005). Once buyers have this impression, it is less necessary for them to take negative behaviors of these parties into account anymore (Blois, 1999), which negates the complexity of adoption or purchase decisions. Hence, trust can be considered especially important in C2C EMs.

2.3 EMQ

As was mentioned, typically C2C EMs are operated and enabled by an independent intermediary. To this end, intermediaries offer a number of functions and services, which include for example the provision of the technological infrastructure (Pinker et al., 2003) that is preferably easy to use (cf. Dai and Kauffman, 2002; Gengatharen and Standing, 2005),

aggregation of buyers and sellers (Grewal et al., 2001; Lancastre and Lages, 2006), credit arrangements, logistical settlement, negotiation services (Grewal et al., 2001), information provision (Pavlou and Gefen, 2004), enabling (secure) communication within the community of users (Lindemann and Schmid, 1999; Pinker et al., 2003) and various formal control mechanisms to build trust among EM participants (Pavlou, 2002; Pavlou and Gefen, 2004). Still, sellers expand these functions and services by offering sales related functions and services such as product selection, product description, and provision of contact and shipping information.

Before, during or after their use of the C2C EM, users form perceptions of the C2C EM environment, which is enabled by the aforementioned functions and services and consists of contextual elements such as formal control mechanisms and website features. As was stated in the above, perceptions of such contextual elements and of the behavior of parties active in the particular context are interrelated and may be so intertwined that they are inseparable on the Internet. This results in clusters of interrelated perceptions of contextual factors, i.e., formal control mechanisms and website features, and of the behavior of the other party. In the case of C2C EMs, such a cluster of perceptions can be referred to as the quality of the C2C EM setting, or EMQ. EMQ is defined in this study as the buyer's overall impression (cf. Hennig-Thurau and Klee, 1997) of the (1) behavior of the intermediary related to the functions and services that this party offers, (2) behavior of the general population of sellers related to the functions and services that they provide, (3) formal control mechanisms provided in the C2C EM, and (4) characteristics of the C2C EM website. This overall impression concerns the buyer's entire experience with the EM exchange setting and thus all transaction phases (cf. Wolfinbarger and Gilly, 2003) that are supported or believed to be supported by the C2C EM.

Given that it is comprised of multiple interrelated perceptions, EMQ is conceptualized as a composite construct that is rather complex and multidimensional in nature.[2] Although such a conceptualization is in line with the literature on website quality (e.g., De Wulf et al., 2006; Kim and Stoel, 2004a; Lee and Kozar, 2006; Yang et al., 2005), EMQ substantially differs from

[2]The mentioned clustering of perceptions of the context and of the other party does not imply that dimensions of EMQ cannot be differentiated, but rather that *within* these dimensions such perceptions are intertwined and inseparable. The reader should also be aware that, given its disparate though interrelated constituents, EMQ goes beyond constructs that merely reflect the quality of services (e.g., Cronin and Taylor, 1994; Parasuraman et al., 1985; Teas, 1993).

constructs addressing quality perceptions of more ordinary types of websites such as online stores (e.g., Wolfinbarger and Gilly, 2003; Kim and Stoel, 2004a), where behavior mainly is dyadic in nature and chiefly perceptions of the selling party are taken into account by buyers in their website evaluations. Therefore, the instruments for measuring website quality that have already been developed (e.g., Wolfinbarger and Gilly, 2003; Yang et al., 2005) can not be applied directly to a C2C EM research setting (cf. Yang et al., 2005).

Until recently, the literature lacked conceptual studies on EMQ as well as instruments to measure it. In our earlier research (2007), however, we studied the nature of EMQ, including its dimensionality, and developed and validated a measurement scale for it. More specifically, we investigated which perceptions of the sellers' and intermediary's behaviors, of formal control mechanisms and of website characteristics together form EMQ and how these perceptions cluster into certain dimensions of this notion. In this research it was established that EMQ consists of multiple buyer's perceptions that cluster into twelve dimensions that were labeled as *website appearance*, *ease of use*, *contacting the intermediary*, *formal control mechanisms*, *community*, *contacting sellers*, *seller information*, *product representation*, *price determination mechanisms*, *assortment*, *settlement* and *meeting sellers*.

2.4 The relationships between EMQ, trust in EMs and purchasing

To investigate the relationships between EMQ, trust and purchasing in C2C EMs, a nomological network was studied empirically. The hypotheses that express the nomological network concerned the anticipated effect of (1) the dimensions of EMQ on both seller trust and intermediary trust, and of (2) seller trust and intermediary trust on the attitude towards purchasing, which can be seen as an important determinant of actual purchase behavior (cf. Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). While the latter effect was already researched in Verhagen et al. (2006), it was investigated in this study as well to corroborate the results of our earlier study and to ameliorate the rigor of the testing of the nomological network.

This paragraph first details the theoretical relationships between the EMQ dimensions on the one hand and seller trust as well as intermediary trust on the other (paragraph 2.4.1). Then, the hypotheses regarding the impact of intermediary trust and seller trust on the attitude towards purchasing will be described (paragraph 2.4.2).

2.4.1 The impact of EMQ on intermediary trust and seller trust

According to the research on both trust in general online settings and in offline settings, the particular perceived behavior attributed to a party (Doney and Cannon, 1997; Gefen et al., 2003; Pruitt, 1981; Sirdeshmukh et al., 2002) or perceptions of the context associated with this party (Blois, 1999; McKnight et al., 2002b; K.J. Stewart, 2003; Van der Heijden et al., 2003) influence his perceived trustworthiness. In C2C EM settings, buyers can attribute such perceptions to the two types of trustees who are active in these settings, i.e., the intermediary and the sellers, since actions of both these parties shape the C2C EM environment. Therefore, and in line with prior conceptual and empirical studies of offline quality concepts (e.g., Gounaris, 2005; Hennig-Thurau and Klee, 1997; Kennedy et al., 2001; Swan et al., 1985) and online quality concepts (e.g., Harris and Goode, 2004; Hwang and Kim, 2007; McKnight et al., 2002a, b), the dimensions of EMQ can be expected to impact seller trust and intermediary trust in the C2C EM. Whether each EMQ dimension impacts both seller trust and intermediary trust, depends on whether the trustor associates the particular EMQ dimension with sellers as well as the intermediary.

Based on the literature on trust, the following subparagraphs present the hypotheses that detail which EMQ dimension was expected to impact which type of trust in C2C EMs. It should be noted that this study adopts an integrative perspective on trust formation. That is, as is common practice in the literature on online trust in general (e.g. Gefen et al.; 2003; Malhotra et al., 2004; Pavlou and Gefen, 2004; K.J. Stewart, 2003), in the case of following the offline trust literature an integrative approach was taken, thereby using insights created originally in the separate offline research streams.

Website appearance

People subconsciously look for and process various signals that indicate another party's trustworthiness (Friedman et al., 2000; Gefen et al., 2003; McKnight et al., 1998; Worchel, 1979). In offline settings, among such signals are the appearance of the trustee (Gefen et al., 2003; McKnight et al., 2002b; Yousafzai et al., 2005) as well as the appearance of the physical environment with which the trustee is associated (K.J. Stewart, 2003). For instance, if the

trustee's appearance seems slovenly, this may signal that he is unorganized and may not be trusted to live up to his commitments.

On the Internet, however, both the trustee and the psychical environment in which the interaction with this party takes place are represented by a website (Koufaris and Hampton-Sosa, 2004; K.J. Stewart, 2003). Consequently, according to the extant literature on online trust (e.g., Bart et al., 2005; J. Cho, 2006; McKnight et al., 2002a, b), the appearance of a website is a determinant of the perceived trustworthiness of the party that is held responsible for the design and maintenance of this website. In the case of C2C EM websites these tasks are performed by the intermediary. Thus:

H1: A buyer's impression of the website appearance positively influences intermediary trust.

Ease of use

Typically, Internet-based interactions are mediated by information systems, including website interfaces (Pavlou, 2003; Gefen et al., 2003; Jøsang et al., 2007). Given this role of website interfaces, a website should not only be visually appealing, but also easy to use (Palmer, 2002, Huizingh, 2000).

Like website appearance and for similar reasons, according to both conceptual and empirical studies of online trust (e.g., Bart et al., 2005; Belanger et al., 2002; Hampton-Sosa and Koufaris, 2005; Palmer et al., 2002), website ease of use impacts a trustor's trust in the party who is considered accountable for the design and maintenance of the website interface. For example, Gefen et al. (2003) argue that website interfaces that are perceived to be easy to use indicate that the other party associated with this interface invests in the relationship with the website users and is thus trustworthy. As attested by Koufaris and Hampton-Sosa (2004), an easy to use website interface is also likely to signal that the party who is held responsible for this interface has the resources and qualifications to live up to his commitments and is thus trustworthy. Accordingly:

H2: A buyer's impression of the ease of use positively influences intermediary trust.

Price determination mechanisms

According to Bakos (1998), price determination is one of the most fundamental functions offered in an EM since without the establishment of prices, demand and supply will not be matched. In

the case of a C2C EM, price determination mechanisms, among which are auctions, negotiations and the posting of fixed prices (Grieger, 2003; Pinker et al., 2003; Skjøtt-Larsen et al., 2003), are provided by the intermediary.

It stands to reason that if the buyer has the impression that the intermediary provides proper price determination mechanisms, he is likely to perceive that the intermediary has the resources, qualifications (cf. Koufaris and Hampton-Sosa, 2004) and devotement to also ensure that sellers in the C2C EM behave trustworthily. Conversely, a failure of the intermediary to provide such a fundamental function as price determination appropriately is likely to show the buyer that the intermediary can or will not ensure the trustworthiness of sellers. Following this logic:

H3: A buyer's impression of the price determination mechanisms positively influences intermediary trust.

Formal control mechanisms

A recurrent theme in the literature is the impact of formal control mechanisms on both offline trust (e.g., Bachmann, 2001; Barney and Hansen, 1994; Dahlstrom and Nygaard, 1995; Hagen and Choe, 1998) and online trust (e.g., Koufaris and Hampton-Sosa, 2004; McKnight et al., 2002a, b; Pavlou and Gefen, 2004, 2005). According to this literature, formal control mechanisms form an important determinant of trust in situations in which the trustor and trustee are separated by a social, temporal or physical distance (Zucker, 1986), as is common on the Internet (Brynjolfsson and Smith, 2000; Lancastre and Lages, 2006; McKnight and Chervany, 2002). In general, such mechanisms build trust since they limit the opportunities or incentives for the trustee to deviate from the agreed course of action, or they guarantee that the trustor will be compensated when the trustee does use such an opportunity (McKnight et al., 1998; Pavlou, 2002; Zucker, 1986).

As a specific EMQ dimension, formal control mechanisms refer to privacy protection measures, guarantees and regulations, which have been argued (e.g., Belanger et al., 2002; Shankar et al., 2002; Shneiderman, 2000) and found (e.g., Bart et al., 2005; Gefen et al., 2003; Walczuch and Lundgren, 2004) to impact the trustee's perceived trustworthiness in online settings. Following these prior studies, when the buyer perceives that such mechanisms are applied by the intermediary in its institutional role as agent of trust, he is likely to believe that the trustworthiness of the sellers is ensured. Therefore:

H4: A buyer's impression of the formal control mechanisms positively influences intermediary trust.

H5: A buyer's impression of the formal control mechanisms positively influences seller trust.

Contacting the intermediary and sellers

According to the literature (e.g., Anderson and Weitz, 1989; Morgan and Hunt, 1994; Young-Ybarra and Wiersema, 1999), a positive evaluation of the communication with the trustee increases the trustor's trust in this party. One trust building aspect of this communication is the ease with which the trustee can be contacted (Good, 1988; Hampton-Sosa and Koufaris, 2005). On the Internet this ease has two elements. First, as in offline settings, it refers to the contact-related behavior of the trustee, i.e., whether the trustee clearly indicates how he may be contacted (McKnight et al., 2002a, b) and whether he is responsive when the trustor initiates contact with him (Lancastre and Lages, 2006; Ridings et al., 2002). Second, since, as was mentioned, Internet-based interactions are characteristically mediated by the website interface, it concerns the degree to which the website functionally enables the trustor to contact the trustee. For example, websites may offer the user the option to send the other party an online message or to chat with the trustee using instant messaging.

In C2C EMs, following the abovementioned existing literature, the ease of contacting the intermediary and sellers is probable to impact their perceived trustworthiness. When the intermediary clearly indicates how it may be contacted, when it is responsive and when it offers many and suitable website-based options to contact it, this is likely to demonstrate the buyer that the intermediary has a number of trust-inducing qualities. Among these qualities are the intermediary's appreciation of its relationship with the buyer (cf. Wiertz et al., 2004) and its conformation to the social norms of proper business conduct (cf. Ridings et al., 2002). Since, according to prior studies, such appreciation of the particular relationship (e.g., Blois, 1999; Gefen et al., 2003) and conformation to social norms (e.g., Bradach and Eccles, 1989; Das and Teng, 1998) are associated with trust:

H6: A buyer's impression of contacting the intermediary positively influences intermediary trust.

In like manner, when the buyer has the impression that sellers clearly indicate how they may be contacted and that they are responsive, this is likely to signal their trustworthiness to him. Thus:

H7: A buyer's impression of contacting the sellers positively influences seller trust.

Based on the above presented reasoning, it can be expected that when the buyer perceives that the website provides many and appropriate options to contact sellers, this will also demonstrate that the party that is responsible for the design and maintenance of this website, i.e., the intermediary, has the aforementioned qualities and is therefore trustworthy. Hence:

H8: A buyer's impression of contacting the sellers positively influences intermediary trust.

Community

Many C2C EMs not only enable buyers to contact the intermediary and specific sellers privately, but also provide a platform for the open, public communication between marketplace participants in general (Ba, 2001) by including such features as chat groups and bulletin boards (Bart et al., 2005). These features and the enabled communication between website visitors facilitate the evolution of so-called communities. Communities are "groups of people with common interests and practices that communicate regularly and for some duration in an organized way over the Internet through a common location or mechanism" (Ridings et al., 2002, p. 273). Members of a community have a collective sense of membership and develop personal relationships with other members (Ridings et al., 2002). In addition, a community is characterized by a shared notion of moral responsibility (Bart et al., 2005; Muniz and O'Guinn, 2001), and by mutual values, interests (Ba, 2001; Klang, 2001), and norms regarding acceptable behavior (Ridings et al., 2002).

The literature provides at least two reasons why the presence of a community on a C2C EM website and positive impressions thereof generate trust in sellers. First, community members can communicate with each other about their experiences with transacting in the C2C EM in general or with purchasing from particular individual sellers. If these experiences are negative and are broadcasted using the community-supporting media in the C2C EM, this can negatively affect the purchase behavior of all people exposed to the community's information exchange and thus pose serious threats to sellers' success in the C2C EM (cf. Klang, 2001). Consequently, given

that the community can take such retaliatory actions against sellers (Ba, 2001), its presence can deter sellers from untrustworthy behavior and thus facilitate informal control of the exchange environment. Accordingly, in line with the literature on informal control (e.g., Das and Teng, 1998, 2001), a buyer's positive impression of the community in a C2C EM is likely to improve the perceived trustworthiness of sellers. Another reason why an active community in the C2C EM can generate trust in sellers is that it may signal to a buyer that this C2C EM has many satisfied users that have had positive experiences with sellers in this trading environment (Brynjolfsson and Smith, 2000). This suggests that:

H9: A buyer's impression of the community positively influences seller trust.

The enabling of a community of users by the intermediary implies that this party allows users to discuss its own performance and the functioning of the C2C EM freely and openly, regardless of whether the involved communication is negative or positive in tone. This will probably suggest to buyers that the intermediary is open, is willing to learn from them, values their input and invests in its own relationship with them, and is thus (cf. Jarvenpaa et al. 2000; Smith and Barclay, 1997) trustworthy. In addition, in the above it was explained that when the buyer believes that the website offers many and suitable options to contact sellers, this can be expected to impact intermediary trust since it is likely to convey that the intermediary appreciates its relationship with the buyer and conforms to the social norms of correct business behavior. Accordingly and following Bart et al. (2005), a similar relationship was anticipated between website features that the intermediary provides to enable the interaction among members of the community of marketplace participants and the perceived trustworthiness of the intermediary:

H10:A buyer's impression of the community positively influences intermediary trust.

Assortment

As discussed in prior studies, a buyer's impression of the assortment influences trust in purchasing settings in general (Xia et al., 2004) and in online store settings in particular (J. Cho, 2006; Shankar et al., 2002). This can be elucidated as follows. Providing a large, varied and interesting product assortment can be considered one of the most important professional services of sellers, without which they can not "stay in business and execute their business model" (J.

Cho, 2006, p. 28). Accordingly, having such an assortment is an important indicator of a seller's performance (Arnold et al., 1996), and thus whether he is reliable, i.e., will live up to his obligations, and is trustworthy (J. Cho, 2006). In addition, given the aforementioned importance of the seller's assortment, it is likely that sellers who offer a larger, more varied and more interesting assortment are perceived to be more professional, a characteristic that is associated with trust (Kanawattanachaia and Yoo, 2002; Kennedy et al., 2001; McAllister, 1995). Moreover, providing such an assortment may send the signal that the seller goes to great length to serve the needs of his customers and is responsible and thus (cf. Morgan and Hunt, 1994) trustworthy. Consequently and in line with existing empirical findings (J. Cho, 2006), it can also be expected that such impressions impact a buyer's trust in the general population of sellers who are active in the C2C EM. Thus:

H11:A buyer's impression of the assortment positively influences seller trust.

Product representation

According to such studies as Bart et al. (2005), Kim et al. (2005) and Shneiderman (2000), the provision of explicit and meaningful information about and proper representation of the particular products that are offered by sellers is conducive to a buyer's trust in these sellers. When a buyer perceives that such information and representation, which may consist of text, photos, three-dimensional graphical models and movies, is detailed, explicit and accurate, he is likely to infer that sellers are professional, dedicated and responsible and thus trustworthy (cf. Belanger et al., 2002; Xiao and Benbasat, 2007). Contrariwise, sellers who provide limited or inaccurate product information may be believed to withhold or misrepresent this information purposefully to deceive the buyer and will thus probably be seen as untrustworthy. Accordingly:

H12:A buyer's impression of the product representation positively influences seller trust.

Seller information

In online purchase settings in general en in C2C EMs in particular, sellers not only provide information about the products they offer, but also about themselves. Such information may include information about the seller's location, his username or real name (Resnick et al., 2000),

his trustworthiness (Kim and Benbasat, 2006), and the level of satisfaction of his other customers (Kim and Benbasat, 2006; Lim et al., 2006), i.e., his reputation.

Since the seller's personal or sensitive information may be used against him, its provision can make him vulnerable. For example, by showing his real name and location the seller's privacy may be jeopardized. Therefore, the seller's willingness to make himself vulnerable indicates that he considers the buyer trustworthy (Doney and Cannon, 1997; Ridings et al., 2002), which is likely to be reciprocated by the buyer (Hart and Saunders, 1997; McKnight et al., 1998). Moreover, it stands to reason that when the seller provides detailed and clear background information this may support the customer in making a well-considered choice, and may thus signal the seller's helpfulness, a quality that is associated with trustworthiness (Morgan and Hunt, 1994; Sako and Helper, 1998). Finally, by offering sensitive or personal information the seller is likely to make himself appear less of a stranger, which is probable to lead to trust in the seller (Ridings et al., 2002). This and the work of Olson and Olsen (2000) suggest that:

H13:A buyer's impression of the seller information positively influences seller trust.

Settlement

Settlement, which refers to the payment and delivery of products, is an essential phase in the transaction process (Grieger, 2003; Skjøtt-Larsen et al., 2003; Hu et al., 2004) for both buyers and sellers in a C2C EM. The reason is that without settlement the seller would not receive the financial compensation for the transacted product and its delivery, and the buyer would not receive this product.

As was described in paragraph 2.2, many of the swindling practices of sellers in C2C EMs are related to transaction settlement. Consequently and following prior studies (e.g., Bart et al., 2005; Belanger et al., 2002; Bharadwaj and Matsuno, 2006; Kim et al., 2005), buyers' impressions of the clearness and ease of the settlement process are likely to impact the anticipated transaction behavior of sellers and thus their perceived trustworthiness. More specifically, the perceived ease of payment and the number of payment methods that the seller accepts (Bart et al., 2005) will probably signal whether he is cooperative and thus trustworthy (Pavlou and Fygenson, 2006; Pruitt, 1981; Ridings et al., 2002). Accordingly:

H14:A buyer's impression of the settlement positively influences seller trust.

Meeting sellers

One of the main reasons why it is relatively easy for parties to an online exchange to behave opportunistically is that when they meet on the Internet, their interaction is computer-mediated and they are separated from each other by a social, temporal or geographical distance. This separation complicates determining the other's identity, his likely future conduct and the quality of products (Ba et al., 2003; Jøsang et al., 2007; Pavlou and Gefen, 2004).

Although exchanges between buyers and sellers in C2C EMs in essence have such an online character, these parties may still meet in offline settings in one or more transaction phases. For example, a buyer may request meeting the seller face-to-face to inspect the product, pay for it or receive it. Therefore, such meetings can reduce the aforementioned separation between the buyer and the seller, thereby increasing the likelihood that the latter party behaves as expected and refrains from opportunistic behavior.

Given this increased likelihood of trustworthy behavior, being offered the opportunity to meet sellers face-to-face is likely to be appreciated by buyers. Still, granting this opportunity confronts sellers with additional transaction costs in terms of time and effort, while, depending on the particular transaction phase, buyers may still decide not to buy the product. Therefore, the sellers' willingness to meet buyers in an offline setting during a transaction is likely to convey that they are willing to invest in their relationship with buyers and are helpful and therefore (Gefen et al., 2003; Morgan and Hunt, 1994; Sako and Helper, 1998) trustworthy. Additionally, when buyers perceive such willingness before actually meeting sellers they will probably believe that they have nothing to hide and are thus trustworthy. Consequently:

H15:A buyer's impression of meeting sellers positively influences seller trust.

2.4.2 The impact of trust on the attitude towards purchasing

Verhagen et al. (2006) investigated among other things the impact of intermediary trust and seller trust on purchase behavior in C2C EMs. The results of this empirical study as well as trust transference theory, which claims that trust in a party can be derived from another third party functioning as proof source (e.g., Doney and Cannon, 1997; McEvily et al., 2003b; Sirdeshmukh et al., 2002; K.J. Stewart, 2003), propose that:

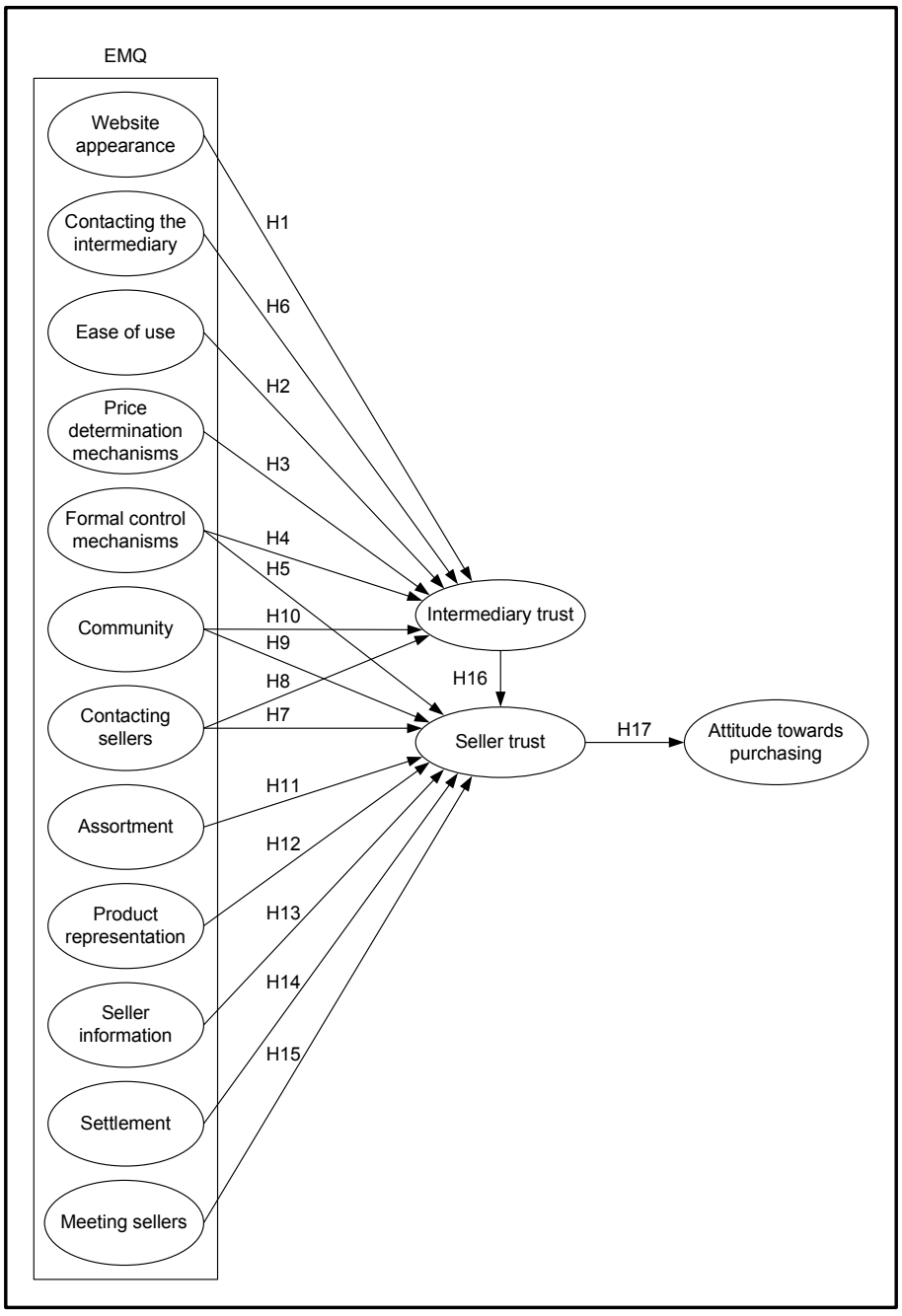
H16:Intermediary trust positively influences seller trust.

Based on the findings of our earlier empirical work (Verhagen et al., 2006) and the literature on the theory of reasoned action (e.g., Ajzen and Fishbein, 1980; Moon and Kim, 2001; Shih, 2004; Shim et al., 2001) in general and prior studies of the impact of trust on online purchase behavior in particular (e.g., V. Cho, 2006; Komiak and Benbasat, 2006; Lim et al., 2006; Pavlou and Fygenson, 2006) it can be expected that:

H17:Seller trust positively influences a buyer's attitude towards purchasing in a C2C EM.

The resulting nomological network is shown in Figure 1.

Figure 1 Nomological network



3 Research design

To test the nomological network, a quantitative research approach was taken. Such an approach was deemed more appropriate than a qualitative approach since it was the overall objective of the study to describe and predict the relationship between a number of phenomena (Yin, 1994). More specifically, the survey technique was used to collect the data. This choice was made since surveys are especially suitable for collecting primary data and relating a number of variables (Creswell, 1994; Hedrick et al., 1993). The adopted survey design was the online questionnaire because it allows faster and cheaper administration, facilitates larger sample sizes, and has been shown to produce more reliable results (Braunsberger et al., 2007; Deutskens et al., 2004) than other survey designs. The following paragraphs describe the measurement instruments (paragraph 3.1) and the sample (paragraph 3.2) that were used to collect the data in this survey.

3.1 Measurement instruments

All operationalizations used in this empirical research involved multiple items and were based on preceding empirical research to increase the validity and reliability of the measurement instrument. The measurement items for the attitude towards purchasing in a C2C EM were taken from Verhagen et al. (2006). As was described in the above, in line with the literature on offline as well as online trust, both seller trust and intermediary trust were interpreted in this study as multidimensional in nature, with the dimensions representing several intertwined beliefs. Still, multiple authors argue that in general (Larzelere and Huston, 1980) and even more so in commercial and business settings these beliefs may be "so intertwined that in practice they are operationally inseparable" (Doney and Cannon, 1997, p. 43), especially when the trustor has little experience with the trustee (McKnight and Chervany, 2002). This operational inseparability is evidenced by the research findings published by Doney and Cannon (1997) and Bhattacherjee (2002). Even though some authors did investigate the impact of different dimensions of trust separately and did establish that these dimensions were operationally divisible, it is unclear "whether there are any substantive benefits from measuring and examining (...) facets of trust in isolation from each other" (Geyskens et al., 1998, p. 225). Therefore, following a large proportion of both empirical studies of trust in offline business and commercial settings (e.g., Dyer and Chu, 2003; Ferrin and Dirks, 2003; Young-Ybarra and Wiersema, 1999; Zaheer et al.,

1998) and in online commercial settings (e.g., Dinev and Hart, 2006; Gefen et al., 2003; Pavlou and Fygenson, 2006; Pavlou et al., 2007), seller trust as well as intermediary trust were conceptualized as multidimensional constructs consisting of a number of intertwined beliefs, but operationalized as unidimensional variables, with the measurement items representing the aforementioned beliefs. The measures for the seller trust construct were the same as those employed in Verhagen et al. (2006), which were based on Pavlou and Gefen (2004), Doney and Cannon (1997), Jarvenpaa et al. (2000), Pavlou (2002), Gefen et al. (2003) and Ohanian (1991). Accordingly, seller trust was operationalized as an intertwined set of beliefs about the dependability, reliability and overall trustworthiness of the general population of sellers. The measures for intermediary trust were also taken from Verhagen et al. (2006). The items concerned the intermediary's institutional role to act as agent of trust by ensuring the dependability, reliability and overall trustworthiness of the general population of sellers. Finally, to measure EMQ, the questionnaire contained the EMQ scale, as was developed by Verhagen and Meents (2007). A detailed overview of the measurement instruments is included in Appendix A and B.

3.2 Sample

The questionnaire was administered to a sample of real users of a popular and relatively well-known Dutch C2C EM that solely facilitates exchanges in the Netherlands. This EM functions as a classifieds hosting platform and can be seen as an online version of the traditional printed classifieds in magazines or newspapers. The questionnaire centered on the purchase of a digital camera since it is sufficiently complex in terms of its attributes set (cf. Jahng et al., 2002) and therefore likely to be subject to perceptions of trust. Users were invited to participate in the web-based survey by a banner placed in the photography section of the website. To provide an incentive for participation, respondents could enter into the raffle of a book token. 597 of the users of the C2C EM completed the questionnaire, which was performed from April 24 up to and including December 5, 2006.

4 Results

This paragraph details the results of the various analyses that were conducted in this study. These analyses were carried out in two steps, as prescribed by Gerbing and Anderson (1988), to avoid misinterpretation of the structural relationships and to enable a more rigorous theory testing and assessment of construct validity. First, only the measurement model was assessed to test the latent factor structure. Thereafter, the measurement and structural models were estimated simultaneously to test the nomological network. The following paragraphs delineate the demographics of the sample that was used for the data collection (paragraph 4.1), the test of the latent factor structure (paragraph 4.2) and the test of the nomological network (paragraph 4.2).

4.1 Sample demographics

A total of 597 users of the focal C2C EM fully completed the questionnaire, of which 67.8 percent was male and 32.2 percent female. While most respondents were between 31 and 60 years old (n = 404; 67.7 percent), no particular peak for any of the age categories could be observed. The vast majority of the respondents considered themselves experienced Internet users and most of these (n = 409; 68.5 percent) reported to have purchased via the Internet four times or more. According to 78.1 percent (n = 466) of the surveyed users they visit the C2C EM at least once per week. Although 34.7 percent (n = 207) of the respondents stated to have no experience with purchasing in the C2C EM, the remainder bought a product via this particular website at least once. In sum, the study was biased towards middle-aged, mostly male, extensive users and experienced buyers. Appendix C shows more demographic information about the sample.

4.2 Test of the latent factor structure

In conformity with Gerbing and Anderson (1988), first a separate CFA was conducted to estimate the latent factor structure of EMQ. Although Verhagen and Meents (2007) already tested this latent factor structure, following prior investigations that combined scale development and nomological validity testing (e.g., Netemeyer et al., 2004; Shimp and Sharma, 1987), in this study another CFA was done using the different, above-described sample. As in other studies

(e.g., Dinev and Hart et al., 2006; Geven et al., 2003; Malhotra et al., 2004), the scales for the dependent variables, i.e., intermediary trust, seller trust and the attitude towards purchasing, were also included in the CFA to test their convergent validity and discriminant validity. To assess the measurement model and its fit, Amos 5.0 with maximum likelihood estimation was used (Arbuckle and Wothke, 1999; Arbuckle, 2003). Overall, the results of the CFA indicated that model fit is good (AGFI .869; CFI .974; NFI .946; RMR .049; RMSEA .038; TLI .969) (cf. Gefen et al., 2003; Hu and Bentler, 1999). The exceptions were formed by the chi-square statistic ($\chi 2 = 1663.122$, $p < .0001$), which demonstrated poor fit, and the goodness-of-fit index (GFI .893), which was slightly below the recommended cut-off value (Gefen et al., 2003). Still, with regard to these exceptions the following should be noted. Given that the likelihood of rejecting a model increases with the sample size in chi-square tests (Bentler and Bonnet, 1980) and the size of the used sample was rather large, the chi-square statistic was less indicative in this study (cf. Dinev and Hart, 2006; K.A. Stewart and Segars, 2002). In addition, since it is not unusual to find good overall model fit while some fit indexes are lower than the recommended values (Pavlou and Gefen, 2004) and to prevent compromising the content validity of the scales, no items were removed (cf. Gefen et al., 2003).

Next to model fit, the reliability, convergent validity and discriminant validity were examined. The reliability estimates (see Table 1) showed that the measurement model had a satisfactory level of reliability. More specifically, all Cronbach's alphas exceeded the recommended cut-off criterion of .70 (Hair et al., 1998) and the AVE's of all factors were higher than the recommended .50 level (e.g., Fornell and Larker, 1981; Ping, 2004).

The convergent validity was verified using the following four guidelines suggested in the literature. First, item loadings need to be significant (Dinev and Hart, 2006) and exceed the recommended .70 level (Netemeyer et al., 2003). Second, the AVE's should be higher than the required minimum of .50 (Segars, 1997; Yi and Davis, 2003). Third, all Cronbach's alphas must be above the .80 level (Ping, 2004). Finally, the minimum item-to-total correlations need to exceed .40 (Jayanti and Burns, 1998). All item loadings, AVE's, Cronbach's alphas and minimum item-to-total correlations conformed to the guidelines, thereby corroborating the convergent validity of the measurement model.

The results attested the discriminant validity as well, since (1) none of the intercorrelations between the constructs, or between the items measuring each construct and the items measuring

other constructs was higher than .70 (cf. Ping, 2004), (2) the value of squared correlations between each pair of dimensions was less than either of their individual AVE's for all tested pairs of dimensions (cf. Fornell and Larker, 1981; Yi and Davis, 2003). This indicates that the EMQ dimensions, intermediary trust, seller trust and the attitude towards purchasing are distinctly different concepts.

In sum, as in Verhagen and Meents (2007), the reliability, convergent validity and discriminant validity were established for the tested latent factor structure, i.e., the measurement scales for EMQ, intermediary trust, seller trust and the attitude towards purchasing. This factor structure could therefore be used as the basis of the structural model that was tested subsequently.

Table 1 Reliability of the measurement model

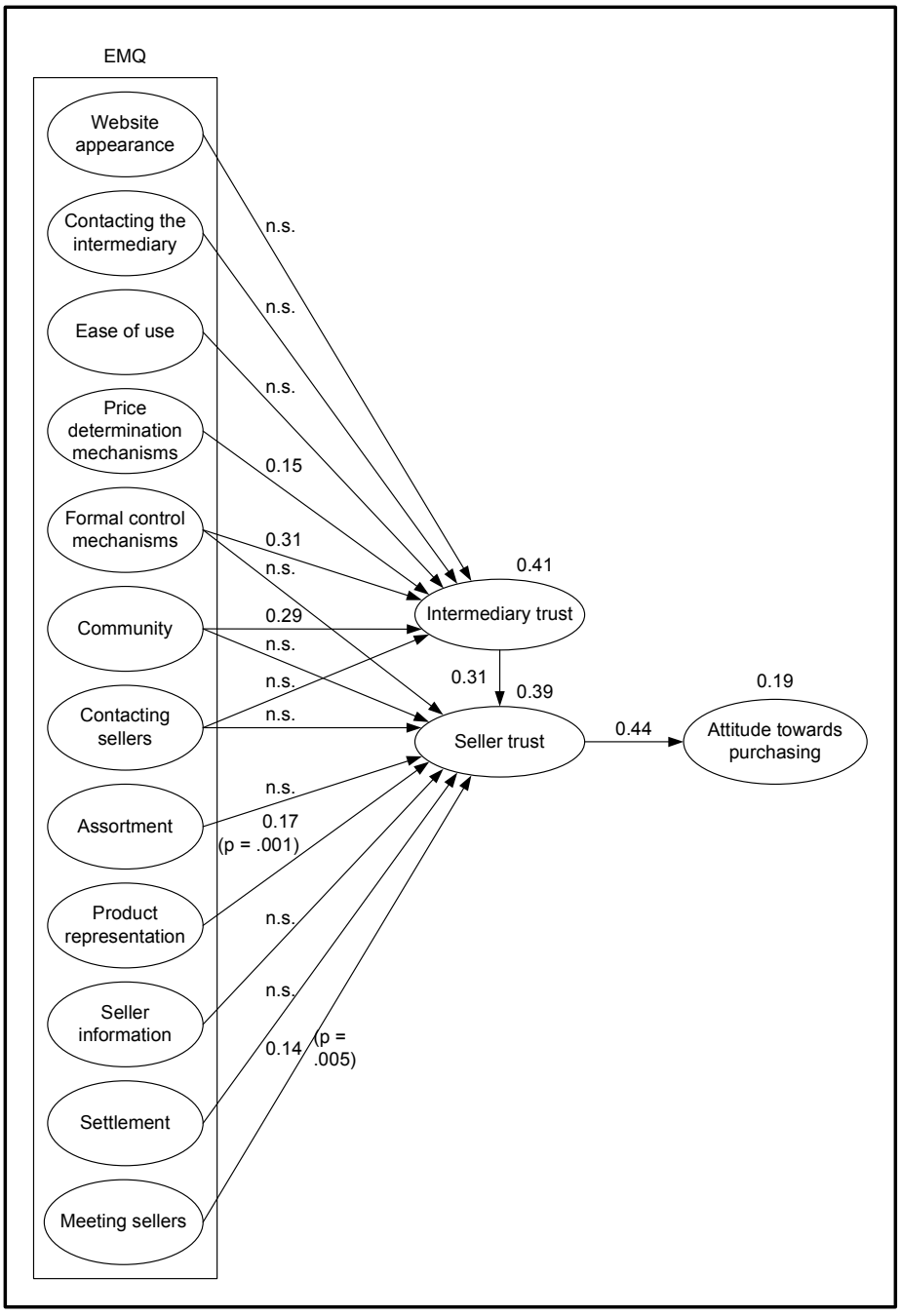
Factor	***α***	***Minimum item-to-total correlation***
Website appearance	.93	.803
Ease of use	.93	.842
Contacting the intermediary	.96	.883
Formal control mechanisms	.94	.819
Community	.90	.768
Contacting sellers	.96	.889
Seller information	.94	.817
Product representation	.89	.770
Price determination mechanisms	.91	.777
Assortment	.96	.884
Settlement	.93	.831
Meeting sellers	.94	.862

4.3 Test of the nomological network

After the test of the latent factor structure, the second step in Anderson and Gerbing's (1988) two-step approach was taken by assessing the full structural equation model to test the nomological network (cf. Dinev and Hart, 2006; Salisbury et al., 2002). The SEM analyses, which were conducted with Amos 5.0 with maximum likelihood estimation (Arbuckle and Wothke, 1999; Arbuckle, 2003), revealed the following. With the exception of the chi-square

statistic ($\chi 2 = 1857.390$; $p < .0001$), the goodness of fit indices implied that the structural equation model represented the data realistically (GFI .940; AGFI .859; NFI .94; TLI .964; CFI .968; RMSEA .042). In addition, the explanatory power of the structural model was considerable since it accounted for 41 percent of the variance in intermediary trust, 39 percent of the variance in seller trust and 19 percent of the variance in the attitude towards purchasing. Figure 2 shows the standardized path coefficients resulting from the SEM analyses.

Figure 2 SEM results



The hypotheses were partially supported empirically. The data supported the suggested links from the EMQ dimensions formal control mechanisms (s.p.c. = .31; $p < .001$), community (s.p.c. = .29; $p < .001$) and price determination mechanisms (s.p.c. = .15; $p < .001$) to intermediary trust,

and from product representation (s.p.c. = .17; p = .001) and meeting sellers (s.p.c. = .14; p = .005) to seller trust. In addition, the links from intermediary trust (s.p.c. = .31; p < .001) to seller trust and from seller trust (s.p.c. = .44; p < .001) to the attitude were significant as well as strong. Still, no empirical support was found for the hypotheses that posited that website appearance, ease of use, contacting the intermediary and contacting sellers influence intermediary trust and that formal control mechanisms, contacting sellers, community, assortment, seller information and settlement affect seller trust. Table 2 presents an overview of the studied hypotheses and whether they were supported or rejected.

Table 2 Overview of the rejected and supported hypotheses

Hypothesis	***Anticipated relationship***	***Result***
H1	A buyer's impression of the website appearance positively influences intermediary trust.	Rejected
H2	A buyer's impression of the ease of use positively influences intermediary trust.	Rejected
H3	A buyer's impression of the price determination mechanisms positively influences intermediary trust.	Supported
H4	A buyer's impression of the formal control mechanisms positively influences intermediary trust.	Supported
H5	A buyer's impression of the formal control mechanisms positively influences seller trust.	Rejected
H6	A buyer's impression of contacting the intermediary positively influences intermediary trust.	Rejected
H7	A buyer's impression of contacting the sellers positively	Rejected

	influences seller trust.	
H8	A buyer's impression of contacting the sellers positively influences intermediary trust.	Rejected
H9	A buyer's impression of the community positively influences seller trust.	Rejected
H10	A buyer's impression of the community positively influences intermediary trust.	Supported
H11	A buyer's impression of the assortment positively influences seller trust.	Rejected
H12	A buyer's impression of the product representation positively influences seller trust.	Supported
H13	A buyer's impression of the seller information positively influences seller trust.	Rejected
H14	A buyer's impression of the settlement positively influences seller trust.	Rejected
H15	A buyer's impression of meeting sellers positively influences seller trust.	Supported
H16	Intermediary trust positively influences seller trust.	Supported
H17	Seller trust positively influences a buyer's attitude towards purchasing in a C2C electronic marketplace.	Supported

5 Discussion and conclusion

This paragraph first summarizes the main research findings (paragraph 5.1). Thereafter, it expounds the theoretical contributions (paragraph 5.2) and implications for practice (paragraph 5.3). It closes with an overview of the limitations of the empirical investigation and some suggestions for further research (paragraph 5.4).

5.1 Main research findings

This study investigated the relationship between EMQ, seller trust, intermediary trust and the attitude towards purchasing. To this end, a nomological network, derived from prior literature, was tested. The data was collected in a Dutch C2C electronic classifieds marketplace, using an online questionnaire, which 597 actual users of this EM completed. The results of the CFA and SEM lead to a number of research findings regarding (1) the impact of EMQ on intermediary trust, (2) the impact of EMQ on seller trust, and (3) the impact of intermediary trust and seller trust. These findings will be further delineated in the subsequent subparagraphs.

5.1.1 The impact of EMQ on intermediary trust

The research confirms that intermediary trust is determined by a buyer's impressions of the price determination mechanisms (hypothesis 3), of the formal control mechanisms (hypothesis 4) and of the community (hypothesis 10) in a C2C EM. The largest effect size was found for formal control mechanisms (s.p.c. = .31), closely followed by community (s.p.c. = .29). On the other hand, the impact of price determination mechanisms was smaller and can be labeled *moderate* (s.p.c. = .15).

These three EMQ dimensions accounted for 41 percent of the variance in intermediary trust. This amount is considerable given that no other antecedents of intermediary trust than EMQ were investigated. The remaining variance may be accounted for by other trust inducing factors, such as the intermediary's perceived reputation (cf. Koufaris and Hampton-Sosa, 2004; McKnight et al., 2002b) or this party's perceived size (e.g., Jarvenpaa et al., 2000).

Contrary to what was expected, no support was found for the influence of the website appearance (hypothesis 1), the ease of use (hypothesis 2), contacting the intermediary

(hypothesis 6), or contacting the sellers (hypothesis 8) on intermediary trust. Past research shows that the effect of constructs concerning website design on a user's psychological reactions to the website may be mediated by the degree to which this individual enjoys using the website (Van der Heijden, 2003). Consequently and in corresponce with the findings of De Wulf et al. (2006), possibly the effect of website appearance and ease of use, which both are more design-related than the other EMQ dimensions, is mediated by the C2C EM user's enjoyment. The non-significant impact of the EMQ dimensions contacting the intermediary and contacting sellers may be explained as follows. Establishing the contact with the other party is but the initial phase in a communication process. Arguably, a trustor's positive evaluation of this phase and thus its effect on trust can be counteracted if the trustee underperforms in subsequent communication phases *and* these phases are more important than the contacting phase in the eyes of the trustor. After all, even though the other party may be easy to contact, his perceived trustworthiness is still likely to diminish if his reactions are evaluated negatively in terms of quantity or quality (Young-Ybarra and Wiersema, 1999), for example since he communicates in an untimely, irrelevant, unreliably (Morgan and Hunt, 1994), impersonal or unclear fashion (Ball et al., 2004). In view of the foregoing, perhaps contacting the intermediary and contacting sellers do not have a significant influence on seller trust since the communication phases that follow the contacting phase are more important to C2C EM users.

5.1.2 The impact of EMQ on seller trust

With respect to the link between the EMQ dimensions and seller trust, the results indicate that seller trust is dependent on the buyer's impression of the representation of products (hypothesis 12) and of the opportunities given to him by sellers to meet them face-to-face (hypothesis 15). These two independent variables were comparable in the weight of their impact, with the standardized path coefficients being a fairly modest .17 and .14 respectively.

Together with intermediary trust, these two dimensions of EMQ explained 39 percent of the variance in seller trust. In prior research on C2C EMs, this form of trust was found to be impacted also by other factors, such as trust propensity, sellers' performance, buyers' past experience, and psychological contract violations by sellers (Pavlou and Gefen, 2004, 2005),

which were not examined in the empirical study discussed here. Accordingly, the percentage of explained variance in seller trust can be considered quite high.

In contrast with hypothesis 12 and 15, which concerned the effect of product representation and meeting sellers respectively, the six other hypotheses relating the EMQ dimensions to seller trust could not be substantiated. The findings regarding these six hypotheses will now be discussed.

Contrary to intermediary trust, seller trust was not positively affected by a buyer's impression of the formal control mechanisms applied in the C2C EM (hypothesis 5). In hindsight, this may be due to the measurement items mostly tapping into the provision of information about these mechanisms by the intermediary. Information provision by the trustee has been shown to impact trust (e.g., Selnes, 1998), for example since it signals an investment in the relationship (Ganesan, 1994). This is likely to explain why the formal control mechanisms dimension of EMQ did affect intermediary trust, even though the majority of the measurement items reflect information provision. Information provision about formal control mechanisms is probable to have a far smaller influence on seller trust than an effective application of such mechanisms, if at all, since information provision alone does not protect a buyer from malevolent behavior of sellers (cf. Pavlou, 2002; Pavlou and Gefen, 2004).

As also applied to intermediary trust, seller trust was not found to be positively impacted by a buyer's impression of contacting the sellers (hypothesis 7). Similarly to what was said in the above section on the impact of EMQ on intermediary trust, this may be due to C2C EM users finding communication phases succeeding the initial contacting phase more important.

The expected link between community and seller trust (hypothesis 9) was not supported by the data. Prior research shows that an individual's sense of belonging to or identification with a community is an important factor in determining its impact on this person (Algesheimer et al., 2005; Bhattacharya et al., 1995). In line therewith, Siau en Shen (2003) maintain that communities can foster trust when the trustor affiliates himself with it. Hence, it is conceivable that, even though respondents had a positive impression of the community in the C2C EM, they did not consider themselves part of this community. Consequently, the seller trust inducing potential of the presence of a community, flowing from the behavioral values and norms, collective interests and satisfaction with sellers that are shared therein, may not have applied to the respondents. Later empirical research could further investigate the moderating impact of

sense of belonging on the relationship between the buyers' impression of the C2C EM community and seller trust.

It was not substantiated that a buyer's impression of the assortment of products in a C2C EM positively influences seller trust (hypothesis 11). One potential cause is that the banner that invited the users to participate in the study was placed in the general photography section and thus included a large selection of different types of camera-related items. A consequence may have been that respondents were interested in photographic products in general, but not *specifically* in digital cameras, thereby potentially influencing the impact of the assortment of these cameras on seller trust. Such personal interest in a product class has also been referred to as *product involvement* (e.g., Dholakia, 2001; B. Mittal and Lee, 1989). The level of product involvement may affect the relationship between assortment and seller trust, which can be explained by existing theory as follows. Since high-involvement goods are more important to consumers (Delgado-Ballester and Munuera-Alemán, 2001), they tend to enter into a longer and more elaborate decision making process, involving the processing of more product-related impressions and attaching more importance to them, when purchasing such goods (Steenkamp, 1990). Consequently, Bart et al. (2005) state that the impact of a consumer's evaluations on purchase behavior is less likely to be mediated by trust when product involvement is low. Accordingly, a consumer's impression of the assortment may affect the attitude towards purchasing *directly* in the case of low-involvement purchases, as the respondents may have seen the purchase of a digital camera. The work of Delgado-Ballester and Munuera-Alemán (2001) demonstrates that product involvement moderates the impact of a consumer's evaluations on trust. Therefore, another possibility is that the influence of a consumer's impression of the assortment on the attitude is indeed mediated by seller trust, but that the impact of this impression on seller trust is moderated by product involvement. Subsequent studies could further investigate the effect of this involvement on the relationship between EMQ and trust in general, and between the assortment dimension of EMQ and seller trust in particular.

A buyer's impression of the information about sellers in a C2C EM was not found to positively affect seller trust (hypothesis 13). It may be that, as opposed to the assumption made earlier in this paper, sellers who provide information about themselves are not seen as particularly helpful, as becoming less of a stranger, or making themselves vulnerable. Perhaps instead such information provision is interpreted by buyers as standard seller conduct, thereby

lacking a direct impact on seller trust. Existing theory on how buyers interpret the provision of seller information appears to be unavailable. Therefore, scientific knowledge on trust in C2C EMs could be improved if such interpretations and how they influence the relationship between seller information and seller trust received further conceptual and empirical consideration.

The positive influence of settlement on seller trust (hypothesis 14) was not corroborated. This can be explained as follows. The fact that meeting sellers did have a significant influence on seller trust may indicate that the users of the studied EM, or at least those who participated in the survey, may tend to meet sellers face-to-face to collect the product and pay for it. Whereas online settlement confronts buyers with risks such as those detailed in paragraph 2.2, meeting sellers is a relatively safe settlement solution (Gefen et al., 2003; Hu et al., 2004), offering the opportunity to prevent mistakes and miscommunications directly (cf. Chidambaram and Jones, 1993). Hence, some people, for example due to their cultural background (Dinev et al., 2006), prefer face-to-face communication and negotiation and thus tend to opt for offline settlement, when this option is offered and they deem it feasible and appropriate. In the case of this empirical study, such a potential tendency on the part of respondents may have made the online facilitation of an easy and well-explained settlement process less relevant, thereby limiting the trust building potential of the settlement dimension of EMQ for the specific sample that was used to gather the data. Future studies could include a measure for the buyers' tendency to meet sellers so that the results can be controlled for its impact.

Overall, seller trust appears to be influenced by other EMQ dimensions than is intermediary trust. In part, this interesting finding was expected and thus reflected in the specified nomological network given that some EMQ dimensions are associated with either the intermediary or sellers. Still, in contrast with what was anticipated, formal control mechanisms and community were found to impact intermediary trust, but not intermediary trust *and* seller trust. Although some explanations for this research outcome were given above, our insight into the matter would be advanced if subsequent studies would cross-validate it.

5.1.3 The impact of intermediary trust and seller trust

Another finding of this empirical study is that its results revalidate those of Verhagen et al. (2006). More specifically, they show that intermediary trust and seller trust are distinguishable

conceptually as well as empirically. In addition, the results provide an additional corroboration of the impact of seller trust on the attitude towards purchasing (hypothesis 17). This impact was found to be very strong, both in terms of the size of the standardized path coefficient (s.p.c. = .44) and the percentage of explained variance (19 percent). Moreover, the results indicate that seller trust is determined by intermediary trust (hypothesis 16) to a large degree (s.p.c. = .31). When comparing the impact of EMQ and of intermediary trust on seller trust, the following is noteworthy. The effect of the EMQ dimensions that were found to be of influence on seller trust, namely product representation (s.p.c. = .17) and meeting sellers (s.p.c. = .14), is about half the size of that of intermediary trust (s.p.c. = .31). As will be further discussed below, this has important implications for practice.

5.2 Theoretical contributions

Sellers as well as the intermediary are jointly involved in transactions in C2C EMs and both have a crucial function in the successful operation of such exchange systems. This implies that grasping purchase behavior and trust in these settings requires considering both these parties. Yet, in spite of the well-recognized significance of trust within the literature, the available theory and empirical evidence on how sellers and the intermediary may influence the formation of this trust is rather restricted. Accordingly, the overarching goal of the performed research was to further our comprehension of trust in C2C EMs by studying the relationships between the perceived conduct of the sellers and the intermediary, perceptions of the C2C EM context, the buyers' trust in these parties and purchase behavior in C2C EMs. The performed research contributes to the literature in a fourth major way by examining the relationships between EMQ, intermediary trust and seller trust empirically. Since these three constructs all concern a relatively large number of perceptions of sellers and the intermediary, their behavior or the C2C EM they facilitate, the research recognizes the essential role of *both* these parties. This sets it apart from the existing theoretic and empirical material as well as generates insight into formerly fairly unexplored theoretic areas pertaining to the exact connections between perceptions of the behavior of sellers and that of the intermediary, perceptions of the C2C EM context, and buyers' trust in sellers and in the intermediary. Extant empirical investigations have focused on the impact of the provision of formal control mechanisms on seller trust, thereby ignoring the

potential influence of the many other ways in which the intermediary can conduct himself and of all the other components and facets of a C2C EM environment. Moreover, although these investigations studied at least some determinants of seller trust, no antecedents of intermediary trust seemed to have been explored until now. In contrast, this research goes beyond such somewhat limited approaches to trust in C2C EMs and the factors that determine it. It does so by exploring how seller trust *as well as* intermediary trust is impacted by EMQ, which comprises a *wide range* of perceptions of the C2C EM environment that is enabled and exploited jointly by sellers and the intermediary, and of perceptions of the behavior of *both* these parties. The research results highlight that trust formation in C2C EMs is impacted by the sellers and the intermediary since the perceived trustworthiness of these parties is interrelated and can be increased by the sellers and the intermediary through improving EMQ. This implicates that the chosen approach enriches our comprehension of the unique role of sellers and the intermediary in the development and role of trust in C2C EMs.

5.3 Implications for practice

The research findings in respect of the relationships between EMQ, intermediary trust and seller trust can provide intermediaries and sellers with guidelines on how they can influence their perceived trustworthiness and ultimately purchase behavior. The results of the empirical studies suggest that trust in a particular C2C EM can be bettered by increasing EMQ. This applies to seller trust as well as intermediary trust. Evidence was provided that sellers can enhance their perceived trustworthiness by improving the way they represent the products they sell and by offering buyers the opportunity to meet them face-to-face. Optimizing product representation involves providing a clear, detailed and faithful indication of the condition of the offered product using both textual descriptions and photographs. As to meeting buyers face-to-face, sellers would do good to make it as easy as possible for buyers to visually inspect and try out the products before they commit to a purchase, to pick up the products after they do make such a commitment and to pay for these products in person. Here, intermediaries can also play an important role by stimulating sellers within their EM to make improvements to product representation and meeting buyers. For example, intermediaries could explain the value of good product representation and of facilitating face-to-face meetings with buyers. Additionally, they could provide sellers with

tutorials and offer financial incentives to those sellers who use certain product representation methods or who are willing to meet buyers in person.

Although intermediaries can engender seller trust indirectly by stimulating sellers to improve buyers' impressions of product representation and of meeting sellers, they should realize that intermediary trust was shown to have a far larger impact on seller trust than these impressions. This stresses that to assist sellers in amplifying seller trust it may be wiser for intermediaries to increase their own perceived trustworthiness. It was demonstrated that they may do so by improving buyers' impressions of the price determination mechanisms, of the formal control mechanisms and of the community in the C2C EM. Among the possible improvements to the provided price determination mechanisms are indicating prices more clearly on the website, offering mechanisms that buyers find more convenient, and increasing the clearness of the explanation of how final prices are determined. Intermediaries can optimize formal control mechanisms by enforcing existing rules, guarantees and privacy protection more strictly, by expanding the number of such protective measures, or by explaining these measures and their protective potential better. Buyers' impressions of the community features of the C2C EM may be enhanced by making it easier for marketplace users to share experiences and communicate informally with each other on the website, and by increasing the number of users that actively interact in such manner. All these improvements that can ultimately build intermediary trust focus on actually offering better designed and explained mechanisms and features. Although such actual enhancements may be perceived by buyers, intermediaries should realize that EMQ and its dimensions are fully perception-based and as such a mere subjective interpretation of the actual situation. Consequently, another way in which intermediary trust can be increased is by improving buyers' perceptions of price determination mechanisms, formal control mechanisms and community features by employing marketing instruments such as advertising.

Overall, it can be inferred from the outcomes of the empirical research that the dimensions that comprise EMQ impact seller trust and intermediary trust dissimilarly. Videlicet, these outcomes indicate that the two forms of trust are affected by other EMQ dimensions. In addition, some EMQ dimensions had a larger influence on trust than others and some were not found to affect either of the two studied trust forms at all. This implies that when aiming at improving

seller trust and intermediary trust, optimizing *particular* aspects of the EM environment or users' impressions thereof may be more effective and efficient than optimizing all aspects in the effort.

5.4 Limitations and suggestions for future research

The following characteristics of the performed study mainly impede the ability to generalize from its results. First, the data collection lasted about 7 months, which may have introduced random measurement error due to temporal instability of the studied setting. Still, a regular check of the studied C2C EM by the author did not indicate any change in this environment that might have considerably influenced the perceptions of the respondents and thus the research results.

In addition, due to practical limitations this study only examined one instance of a C2C EM. Therefore, although the findings of this study are quite promising, it remains to be seen whether, as can be expected, they can be generalized to other C2C EMs that were not studied. Other academics are encouraged to investigate this further using data collected in a number of C2C EMs with different characteristics.

The respondents were chiefly extensive users and experienced buyers. Consequently, the results of the study are biased towards repeated purchases. This might have implications for the research findings for the following reasons. As was expounded, trust can function as a way to reduce decision complexity since once a trustor has the impression that the trustee will behave as expected and that the interaction will (continue to) lead to positive outcomes, he does not have to take negative conduct of the trustee into account anymore. Typically, as the trustor's experience with the trustee increases, so do his opportunities to evaluate the trustee's behavior and the degree to which it is in accordance with the promises originally made by this party (Anderson and Narus, 1990; Swan et al., 1985). When this past experience is positive, this can increase the perceived trustworthiness of the trustee (Anderson and Weitz, 1989; Gulati, 1995; Schurr and Ozanne, 1985), for example because it gives the trustor an indication of whether the trustee will keep his promises in the future as well (Doney and Cannon, 1997; McAllister, 1995). Therefore, as the relationship matures, positive experiences strengthen trust and thus people's reliance on its potential to reduce decision complexity. Since people value trust, they tend to stay in relationships with others they deem to be trustworthy (Moorman et al., 1992; Morgan and Hunt, 1994) and thus trust is typical of established non-forced relationships. Since the majority of the

respondents already had such an established relationship with the C2C EM and, possibly, also with part of the general population of sellers, it is most likely that these relationships already had a larger element of trust. Given the even greater impact of trust as a decision complexity reduction method in more mature relationships, this could have had an upward biasing effect on the impact of the intermediary trust and seller trust variables. Therefore, the generalizability of the results pertaining to these influences to C2C EM users who are less experienced in using the website and in purchasing via it warrants additional empirical consideration.

It is also believable that the characteristics of the studied C2C EMs affected the results of this empirical investigation. Not only is the intermediary that operates the studied EM a rather well-known organization in the Netherlands, it also has specific organizational characteristics that, if they are aware of them, may influence consumers' trust and risk perceptions. The examined C2C EM is an online variant of printed classifieds in one of the most popular Dutch newspapers and is owned and operated by a large Dutch media publishing company. Consequently, it is conceivable that the respondents already had existing expectations concerning the trustworthiness of this organization, which could have had an upward biasing effect on the influence of intermediary trust on seller trust in this empirical study. Possibly, this influence of intermediary trust is weaker in C2C EMs that are operated by a less well-known intermediary with different organizational characteristics. Whether the results concerning the associations between intermediary trust and seller trust can be generalized to C2C EMs that do not share the aforementioned characteristics demands further research.

Due to practical restrictions, this empirical study investigated but one instance of a C2C EM. Consequently, a limitation of this study is that its findings may not be fully generalizable to C2C EMs that were not studied. Academics are advised to re-investigate and cross-validate these findings, preferably rigorously, using disparate data sets collected in a number of C2C EMs with different properties. For instance, such re-investigations and cross-validations could focus on the finding that some EMQ dimensions merely influence seller trust indirectly through intermediary trust, and that, contrary to what was anticipated, some neither impact intermediary trust nor seller trust. Still, a re-investigation of the impact of the EMQ dimensions does not have to be restricted to the nomological network that was used in this study. Relating the EMQ dimensions to other important phenomena with which it may share nomological connections, such as satisfaction and loyalty (cf. Wolfinbarger and Gilly, 2003; Yang et al., 2005), would be an interesting avenue of

research, which could provide additional insight into the impact of EMQ. For example, it may show that some dimensions that were not found to impact intermediary trust or seller trust are still important since they do impact other consequential notions.

In addition, this empirical investigation did not distinguish explicitly between perceptions of private and business sellers. In most C2C EMs at least a small proportion of the sellers are businesses (cf. Pinker et al., 2003). This may especially apply to eBay since, according to Lin et al. (2006), it is evolving from a typical C2C EM into a B2C EM. It is possible that respondents had different assumptions about the proportion of private and business sellers in the studied C2C EM. Arguably, individuals may form different trust-related perceptions of the characteristics of companies than they do of private sellers. For example, a company is more likely to be perceived as professional, a characteristic associated with perceived trustworthiness (Swan et al., 1985). Therefore, not differentiating between perceptions of private and business sellers may have influenced the relationships between EMQ facets, seller trust, intermediary trust and the attitude towards purchasing. Whether and how these relationships differ for each seller type, if these types can indeed be differentiated empirically, could be examined in new research.

Differences between new and used products or between products with dissimilar levels of consumer involvement were not considered in this empirical study. This could have impacted the effect of intermediary trust and seller trust as well as of some of the EMQ dimensions. Not only could this have affected the impact of intermediary trust and seller trust, since purchasing used products may be perceived to be more risky (cf. Ba and Pavlou, 2002), but also the impact of some of the EMQ facets, as was already illustrated in the above discussion of the discovered influence of the assortment on seller trust (see paragraph 5.1.2). As a consequence, extrapolating the research findings to products that are not new or that have other levels of consumer involvement must be done with caution and should rather wait until further empirical evidence is available.

Another limitation is that the data collection was cross-sectional instead of longitudinal in nature. Such cross-sectional data collection prevents making strong cause and effect inferences from the data. Thus, potential future tests of the developed conceptual models could benefit from being based on a longitudinal research design.

Finally, the empirical exploration was limited in that the researched C2C EM mostly targets the Dutch market. In line with this fact, researchers interested in generalizing the research

findings to non-Dutch C2C EMs should do so while taking into account the intricacies of cultural and ethnic aspects of the user bases of C2C EMs. This especially applies to the impact of EMQ on seller trust and intermediary trust since, as opposed to the relationships between these forms of trust and purchase behavior, it had not been investigated before in any C2C EM, regardless of the country this transaction system focuses on. Accordingly, knowledge about the impact of cultural and ethnic aspects on the concepts studied in this dissertation or on the relationships between them, which may be gained from subsequent studies, could be a worthwhile addition to the literature.

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Appendix A Measurement instruments for trust and attitude towards purchasing

Item	*Caption*
Intermediary trust	
Intmedtrust1	<name intermediary> ensures sellers are dependable.
Intmedtrust2	<name intermediary> ensures sellers are reliable.
Intmedtrust4	<name intermediary> ensures sellers are trustworthy.
Seller trust	
Selltrust1	Sellers of <product> in this online market are in general dependable.
Selltrust2	Sellers of <product> in this online market are in general reliable.
Selltrust4	Sellers of <product> in this online market are in general trustworthy.
Attitude	
Att1	I am positive towards buying a <product> on the <name> website.
Att2	The thought of buying a <product> at the website of <name> is appealing to me.
Att3	I think it is a good idea to buy a <product> at the website of <name>.

Appendix B Measurement instrument for EMQ

Item	*Caption*
Website appearance	
Appearance1	Unattractive website layout – attractive website layout
Appearance2	Outdated website layout – up to date website layout
Appearance3	Boring website layout – interesting website layout
Ease of use	
Ease1	Difficult to navigate website – easy to navigate website
Ease2	Unclear website structure - clear website structure

Ease4	Difficult to learn how to use the website - easy to learn how to use the website
Contacting the intermediary	
Contmed1	Insufficient information to contact <name intermediary> - sufficient information to contact <name intermediary>
Contmed2	Difficult to contact <name intermediary> via the website – easy to contact <name intermediary> via the website
Contmed3	Insufficient options to contact <name intermediary> - sufficient options to contact <name intermediary>
Formal control mechanisms	
Formalc2	Unclear information about guarantees – clear information about guarantees
Formalc3	Insufficient information about the privacy policy – sufficient information about the privacy policy
Formalc4	Insufficient privacy protection - sufficient privacy protection
Formalc5	Unclear information about the rules on <name EM> – clear information about the rules on <name EM>
Community	
Commu2	Difficult to share experiences with other buyers – easy to share experiences with other buyers
Commu3	Few buyers sharing their experiences on <name EM> - many buyers sharing their experiences on <name EM>
Commu4	Insufficient options to communicate with other buyers – sufficient options to communicate with other buyers
Contacting sellers	
Contsel1	Insufficient information to contact sellers – sufficient information to contact sellers
Contsel2	Difficult to contact sellers via the website – easy to contact sellers via the website

Contsel3	Insufficient options to contact sellers – sufficient options to contact sellers
Seller information	
Infsel1	Insufficient information about sellers – sufficient information about sellers
Infsel2	Unclear indication of sellers' reputation – clear indication of sellers' reputation
Infsel3	Insufficient information about sellers' reputation - sufficient information about sellers' reputation
Product representation	
Prodinf2	Incorrect descriptions of <name products> – correct descriptions of <name products>
Prodinf3	Bad representation of <name products> (images/photos) – good representation of <name products> (images/photos)
Prodinf7	Unclear condition of <name products> – clear condition of <name products>
Price determination mechanisms	
Pricing1	Unclear how final prices are effected – clear how final prices are effected
Pricing2	Inconvenient pricing method – convenient pricing method
Pricing3	Unclear what final price to pay – clear what final price to pay
Assortment	
Assor1	Few interesting <name products> – many interesting <name products>
Assor2	Limited range of <name products> – wide range of <name products>
Assor3	Insufficient number of <name products> - sufficient number of <name products>
Settlement	
Settl1	Unclear how to pay for <name products> – clear how to pay for <name products>
Settl2	Difficult to pay for <name products> - easy to pay for <name products>
Settl3	Unclear how to receive <name products> – clear how to receive <name products>

Meeting sellers	
Meet1	Difficult to meet sellers and evaluate <name products> before you buy - easy to meet sellers and evaluate <name products> before you buy
Meet2	Difficult to meet sellers and pay them - easy to meet sellers and pay them
Meet3	Difficult to pick up <name products> at the sellers' location - easy to pick up <name products> at the sellers' location

Appendix C Sample demographics (n = 597)

Measure	*Answer category*	*Percentage*	*Frequency*
Gender	Male	67,80%	405
	Female	32,20%	192
Age	< 21	6,50%	39
	21 - 30	16,20%	97
	31 - 40	20,90%	125
	41 - 50	22,30%	133
	51 - 60	24,50%	146
	> 60	9,50%	57
Experience with Internet	Very inexperienced	1,70%	10
	Inexperienced	6,40%	38
	Neutral	20,80%	124
	Experienced	47,40%	283
	Very experienced	23,80%	142
Number of online purchases	None	7,50%	45
	One	6,50%	39
	Two	9,00%	54
	Three	8,40%	50

	Four or more	68,50%	409
Number of purchases via this electronic marketplace	None	34,70%	207
	One	19,40%	116
	Two	17,40%	125
	Three	7,50%	104
	Four or more	20,90%	45
Number of prior visits to this website	None, this is the first time	3,70%	22
	A couple of times per year	5,70%	34
	Once per month	12,60%	75
	Once per week	22,30%	133
	A couple of times per week	55,80%	333