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From virtual community members to C2C e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention

Yaobin Lu [a], Ling Zhao [a,*], Bin Wang [b,1]

[a] School of Management, Huazhong University of Science and Technology, Wuhan 430074, China
[b] College of Business Administration, University of Texas–Pan American, Edinburg, TX 78539, USA

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ABSTRACT

In China, major C2C websites are focusing on increasing their customer bases by converting members of their virtual communities (VCs) into C2C buyers and sellers. This phenomenon is called e-commerce based on social networks (ENS). The current research analyzes what factors affect trust building among VC members and how this trust influences the trust in the C2C website or vendor. We propose and empirically test a model of trust in VCs based on the trust formation mechanism. Using data collected from Taobao Virtual Community, we show that familiarity, perceived similarity, structural assurance, and trust propensity are important antecedents to trust in members in VCs. Analyses of the two kinds of trust show that trust in members' ability significantly affects three dimensions of trust in the vendor/website in terms of ability, integrity, and benevolence. In addition, trust in members' integrity and benevolence stimulates the purchase intention and trust in the vendor/website's ability positively affects the intention to get information and the purchase intention.

1. Introduction

Search and virtual communities are reliable underpinnings of consumer-to-consumer e-commerce.
    – Yanhong Li, CEO of Baidu.com, Inc. (Xu 2007)

With the development of the Internet and Web 2.0, many new business models have emerged, among which are virtual communities (VCs). iResearch Consulting Group, an Internet marketing research firm in China, revealed that 45.3% of the country's VCs emerged in 2007 (iResearch 2007b). In China, VCs have become the forums where Web users express themselves, get information, interact with each other, and establish their social networks. These VCs provide effective platforms for the development of e-commerce based on social networks (ESN), which refers to e-commerce based on the contents on and user base of VCs (iResearch 2008c). ESN, which involves transactions by VC members, is a new business trend emerging in China with the development of Web 2.0. Practitioners and researchers consider ESN promising for several reasons. First, the popularity of VCs in China makes ESN possible. VCs appeal to a large number of Web users because of their open-

ness, interactivity, and the ability to connect many people with similar interests. This is evident in that there were more than 105 million VC users at the end of 2007 (iResearch 2008b). Second, VCs allow companies to more easily execute targeted marketing campaigns since VC forums usually attract individuals with similar interests and preferences. For example, notebook or automobile manufacturers can advertise their products in those VCs that focus on computers or cars, respectively. Finally, VCs enjoy a higher customer conversion rate than other business models, such as portals, service providers, and content providers. They also allow companies to increase customer loyalty (Bughin and Zeisser 2001, iResearch 2007b).

Many companies that provide Internet services in China have already attempted to provide their existing VC users transaction functions such as buying and selling products and services or to enhance VC services for their existing transaction platforms. Consumer-to-consumer (C2C) e-commerce, the most successful e-commerce business model in China accounting for 93% of all Internet transactions in the second quarter of 2008, is one such example (iResearch 2008a). As Table 1 shows, there are four main C2C platforms in China, whose providers are Alibaba, TOM and eBay, Tencent, and Baidu, respectively. Taobao (provided by Alibaba) had the largest C2C market share (83.9%), followed by Eachnet (eBay China, 8.7%) and PaiPai (provided by Tencent, 7.4%) (CNNIC 2008). What is evident in Table 1 is that these major C2C providers all rely on VCs to promote member communication and knowledge sharing, which is a prominent characteristic of the

* Corresponding author. Tel.: +86 27 87558100.
  E-mail addresses: luyb@mail.hust.edu.cn (Y. Lu), lingzhao@smail.hust.edu.cn (L. Zhao), binwang@utpa.edu (B. Wang).
  [1] Tel.: +1 956 3813336.

Table 1
C2C platforms and VC services provided in China.

Provider	Virtual community service		C2C platform	
	Name	Description	Name	Description
Alibaba	Taobao VC Taobao Wangwang Taobao Ask	A forum established in 2003 for buyers and sellers of Taobao An instant messaging (IM) tool provided by Taobao to encourage the communication among members. A new function established in 2008 for Taobao members to share knowledge	Taobao	Time founded: May 2003 C2C market share: 83.9% http://www.taobao.com
TOM and eBay	Eachnet VC	A forum established in 2007 for buyers and sellers of Eachnet	Eachnet	Time founded: 2007 C2C market share: 8.7% http://www.eachnet.com
Tencent	Tencent QQ Q-Zone QQ Game SOSO Ask	An IM software launched in 1999 with 800 million registered users and 318 million active users now. An online space started in 2005 with more than 200 million users for presentation, information exchange, and interaction with each other A platform for online games with 200 million registered players and 4 million playing QQ games simultaneously A website started in 2006 for knowledge sharing with 65 million questions answered already	Paipai	Time founded: March 2006 C2C market share: 7.4% http://www.paipai.com
Baidu	Tieba Baidu Baike Baidu Zhidao Baidu Hi	A forum started in 2003 with more than 300 thousand sub-forums and two billion posts. Users can create sub-forums for new topics The largest online encyclopedia in China started in 2006 with more than 1.38 million topics now A website started in 2005 for knowledge sharing with 44 million questions answered so far An IM software rolled out in 2008 for communication with others	Youa	Time founded: October 2008 C2C market share: N/A http://youa.baidu.com

Note: Market share data are from CNNIC (2008).

Chinese e-commerce marketplace. In addition, these VCs help increase website stickiness and encourage VC members to participate in C2C transactions (iResearch 2007b). This is also evident in a case study Chen et al. (2007) conducted on Taobao and Eachnet, where they found that participation in online communities enhances customer loyalty to C2C websites. Though previous research has examined VCs in detail, no such research has empirically tested the link between VCs and C2C e-commerce. Due to the special e-commerce landscape in China and the emergence of ESN, it is important that we examine factors that affect this conversion process.

For C2C platform providers, using VCs to facilitate members' communication and converting VC members to C2C buyers and sellers are critical to their success. To achieve this goal, trust is a major issue that baffles C2C development in China as more than half of the offline-only consumers do not purchase online because of their distrust of the digital channel (Analysys 2008). For example, a large number of counterfeit products are sold on these websites (Fitzpatrick 2006, Wang 2009). Though some C2C websites such as Taobao and Youa have taken actions to prevent the sale of counterfeit products (B2B Trade International 2009, China Tech News 2006), the phenomenon still exists. Some C2C sellers post fake product pictures taken from magazines or other websites and send buyers inferior knockoff products. An informal survey by Sina.com revealed that more than 70% of the respondents had bought fake products online and worried about making purchases on C2C websites in the future (Sina 2009). Hence, we believe trust is especially important for the success of C2C websites in China. VCs are considered an effective way to overcome this obstacle for two reasons. First, VCs allow members to obtain information or support from each other. Many people go to VCs to search product-related information. They are influenced by the opinions of VC leaders and other members. A recent report shows that word-of-mouth marketing has great potential in VCs (iResearch 2007b). Second, VCs can be an effective medium to facilitate trust building in the digital marketplace. Ba (2001) used game theory to show that a community agent will be more effective than an individual agent in assuring the continuity of trust building processes because a community with an infinite life would overcome the limitation that an individual agent might cheat during the last transaction.

She also proved that building trust at the community-level has lower costs than at the individual-level (Ba 2001). Hagel and Armstrong (1997) predicted that community-based transaction will be the future of community-based marketplace.

In this research, we examine trust building in VCs provided by C2C websites and how it affects consumers' intentions to get information and purchase from these websites. The main contributions of our research are relating VCs to C2C e-commerce and examining the conversion from VC members to C2C buyers. Here we focus on C2C buyers only as the factors that affect transaction behaviors may be different for buyers and sellers. Our research is motivated by the strong tie between VCs and C2C websites in China and the increasing popularity of ESN. We investigate the roles of familiarity and perceived similarity in building online interpersonal trust. These two factors were not examined in previous research on trust and VCs. We also decompose trust in the vendor or website into three constructs – ability, integrity, and benevolence – and study the relationships between these dimensions and trust in members. Neither of the two previous researches on trust in VCs examined these relationships.

Our paper is organized as follows. In Section 2, we first discuss the various definitions of VC and identify different types of VCs in China, then we review the extant literature on trust. Next, we propose the research model and explain in detail our hypotheses in Section 3. In Section 4, we discuss the research methodology including the processes of instrument development, data collection, and analysis, followed by the results, their implications, limitations, and suggestions for future work in Section 5. Finally, we conclude with Section 6.

2. Literature review

In this section, we discuss different types of VCs and review the related literature on trust in e-commerce.

2.1. Definitions and types of virtual communities

Researchers have defined VC or online community differently. Rheingold (1993) focused on the technological aspect of VC and

defined it as "*social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace*". He argued "*whenever computer-mediated communications technology becomes available to people anywhere, they inevitably build communities with it*". Fernback and Thompson (1995) recognized the importance of "social relationships" and defined a VC as "*social relationships forged in cyberspace through repeated contact within a specified boundary of place (e.g., a conference or chat line) that is symbolically delineated by topic of interest*". Hagel and Armstrong (1997) distinguished between member-generated contents in VCs and provided information service. Williams and Cothrel (2000) pointed out "common interests" as an important aspect of VCs.

Four common characteristics of a VC can be summarized based on previous research: (1) it exists in the cyberspace; (2) it uses information technologies; (3) it is used for communication and interaction around common interests, and most of its contents are user generated; and (4) it allows the formation of social relationships. In this study, we adopt the definition Lee et al. (2003) gave, where "*a virtual community is a cyberspace supported by computer-based information technology, centered upon communication and interaction of participants to generate member-driven contents, resulting in a relationship being built up*".

Researchers have also developed different classification schemes of VCs. In this study, we use the widely adopted four categories that Armstrong and Hagel (1996) identified including: (1) *interest communities* in which people who share an interest or expertise on a specific topic gather together to communicate with each other; (2) *relationship communities* in which people with similar experiences come together and form meaningful personal relationships; (3) *fantasy communities* which usually refer to online games and in which people come together to get fantastic experiences; and (4) *transaction communities* that focus on transaction needs and where people can get trading information. Moreover, transaction communities can be further classified into business-to-business (B2B) and consumer-focused VCs. The former includes various types as vertical industry, geographic, functional, and business type publics, whereas the later consists of geographic, demographic, or topical publics (Jones and Rafaeli 2000). Based on this classification scheme, we show in Table 2 the most popular VCs in China.

2.2. Trust in vendor/website and trust in virtual communities

In e-commerce, trust has been long recognized as a critical success factor, and much research has been conducted on trust (Gefen and Straub 2004, Kim et al. 2003, Lee and Turban 2001). Trust is "*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*" (Mayer et al. 1995). Researchers have also agreed that trust is multidimensional, and the most cited three dimensions of trust are *ability*, *integrity*, and *benevolence* (Gefen and Straub 2004). Ability is the skills or competencies that allow a trustee to be perceived competent in a specific area. Integrity is the expectation that the trustee will act in accordance with social norms or principles that the trustor accepts. Benevolence is that the trustee will care about and do good to the trustor.

There are two kinds of trust in our study: trust in the vendor/website and trust in members. Trust in the vendor/website refers to the beliefs that the C2C website or the VC sponsor is capable of providing quality services and would do good to its consumers or users. It is the assessment toward the performance of an institution or organization rather than an individual. Institutional trust affects consumers' purchase behaviors (Gefen et al. 2003b, Pavlou and Gefen 2004). It contains three dimensions: trust in the ability, integrity, and benevolence (Gefen 2002).

Trust in members can be a major factor that affects the prosperity and success of VCs as, in a virtual environment where participants are usually anonymous and do not engage in direct face-to-face communication, trust can be a significant issue. In VCs, trust also plays an important role in affecting members' behavior as people would act more proactively when they trust the environment and other people (Kankanhalli et al. 2005, Rothaermel and Sugiyama 2001).

Different from trust in online stores or systems (Gefen 2000), trust in the online vendor (Gefen et al. 2003b), or trust in online shopping or e-commerce (Lee and Turban 2001) that previous research examined, trust in VCs can also be understood as interpersonal trust (Ridings et al. 2002). It exists between an individual and other unfamiliar members in the community, and it is a general trust toward others and the community, not necessarily toward a specific person. People share information and experiences online with others they have never met. This implies that a certain level

Table 2
Popular virtual communities in China.

Transaction communities: VCs that focus on transaction needs and people can get trading information	
Alibaba	http://club.china.alibaba.com A B2B website that provides discussion forums for small enterprises to communicate and exchange business information
Taobao	http://forum.taobao.com A C2C website that provides discussion forums for individual buyers and sellers to communication
Paipai	http://bbs.paipai.com A C2C website founded recently. Its fast development is based on the large user base of Tencent QQ, an IM software
Taskcn	http://witkey.taskcn.com/ A Witkey website founded in 2005. It is a knowledge exchange platform where companies and individuals can solicit solutions or answers to their posted questions and give rewards to providers of the winning solutions or answers
Interest communities: VCs in which people who share an interest or expertise on a specific topic gather together to communicate with each other	
Sohu Blog	http://blog.sohu.com/ One of the blog websites in China where bloggers can chronicle their lives and share them with others
Donews	http://home.donews.com/ An online forum on IT and Internet development
Relationship communities: VCs in which people with similar experiences come together and form meaningful personal relationships	
Hepatitis B Carriers BBS	http://bbs.hbvhbv.com/ A BBS forum aimed at providing a communication platform for Hepatitis B carriers and eliminating discrimination against this group
Fetion PICA	Two wireless IM tools. Fetion is provided by the largest wireless network operator in China—China Mobile
Fantasy communities (entertainment communities): VCs which usually refer to online games and in which people come together to get fantastic experiences.	
Youku	http://www.youku.com One of the largest video sharing websites in China. Members can upload video files and watch the ones uploaded by others. Similar to YouTube
UC	An IM software with video chat rooms. Users can show themselves and engage in discussions using videos and audios
The world of legend	An online game that mimics the real world where players can play specific roles. Similar to Second Life
Mixed communities	
Tianya Club	http://www.tianya.cn A large online club that provides several functions including blogs, groups, and forums
Mop	http://www.mop.com A large platform that provides services such as making friends, blogging, and online games

of trust may exist because the information owners' privacy may be at risk, and the information acquirers may be cheated by others that they do not know. Rotter (1967) defined such trust as "*an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon*," and developed a scale to measure interpersonal trust.

The literature on trust usually uses the model "antecedents–trust–outcomes" to investigate trust (Shankar et al. 2002). There are several classifications for the antecedents to trust, one of which based on the trust formation mechanism. Gefen et al. (2003b) classified the antecedents to trust into: (1) *knowledge-based trust*, which focuses on trust building through repeated interactions; (2) *cognition-based trust* or *initial trust*, which focuses on trust building though first impression rather than repeated interactions over a longer period of time; (3) *institution-based trust*, which focuses on relying upon an institution or third party to build trust; and (4) *personality-based trust*, which refers to individual personalities that influence trust building. Zucker (1986) identified three mechanisms to establish trust: (1) *process-based trust*, which has similar meanings to knowledge-based trust; (2) *characteristic-based trust*, which implies that trust is established based on social similarities, such as families, ethnicities, or racial origins; and (3) *institution-based trust*.

Such classifications of trust antecedents are applicable in VCs, though some revisions may be necessary to reflect the special characteristics of VCs that affect trust building in this context. For example, individuals interacting with each other though computer-mediated communications may experience a trust building process that is similar to the one in the offline environment. They get familiar with each other through interactions, and this establishes trust between them, as people tend to trust others who they know. Similar interests of the members in a VC may also foster the development of trust. We combine the two classifications to categorize the antecedents to trust in VCs into knowledge-based, characteristic-based, institution-based, and personality-based trust, and give detailed explanations in Section 3.

Although many researchers considered three components of trust, Ridings et al. (2002) believed that, in the context of VCs, two dimensions apply in trust in members: ability and a combined benevolence and integrity dimension. Their rationale was that integrity and benevolence both lead to the same behavior—maintaining conversations—in VCs. Gefen (1997) also found that, in VCs, integrity will be exhibited by benevolence behavior which is in accordance with the norms of the VC. Hence, we adopt this view of trust in members.

In a VC, trust in other members will prompt an individual's participation such as sharing knowledge with others or getting information from the VC (Ridings et al. 2002). This trust may also affect the member's trust in the vendor or supplier of the VC, as Tung et al. (2001) found that, when trust between members is established, members with higher involvements in the VC will perceive a greater level of trust in the website or vendor than those less involved members. Meanwhile, Smith (2002) investigated the influence of recommendations in VCs, and found that trust between members will cause members to be more willing to accept future recommendations from peer recommenders. That is to say, when a member recommends a vendor or supplier with a good reputation in the VC, other members will more likely believe or accept such information when they have a higher level of trust in this member. In a word, the higher the trust between members, the higher the trust in the vendor or supplier with a positive word-of-mouth in the VC.

3. Research model and hypotheses

Based on previous research, we propose our research model and summarize it in Fig. 1. Using this model, we explain which factors affect trust in VCs, how this trust influences members' trust in the website, and how these two kinds of trust affect the consumer purchase decision. We next develop each of our hypotheses.

3.1. Knowledge-based trust antecedent: familiarity

Familiarity refers to the trust building mechanism where individuals get to know each other through interactions and then predict others' behaviors based on the information they obtain from this interactive process. In the extant literature, familiarity is usually used to describe the extent to which consumers know about a website or vendor, and it has been shown to positively influence trust in the website or vendor (Gefen 2000, Gefen et al. 2003b).

Familiarity can also be applied to interpersonal trust, as people are usually prone to trust others that they are familiar with. Familiarity with other members involves interaction, as one needs time to accumulate trust-relevant knowledge resulting from experience with other parties. Hence, there is a positive relationship between interaction and trust. Rousseau et al. (1998) identified several kinds of trust, one of which is relational trust that emerges as a result of repeated interactions over time. Gulati (1995) found that repeated ties can influence trust between firms in an alliance and further affect the types of contract adopted. Wallace (1999) also found that frequent communications between team members are helpful to trust building. He especially suggested that the initial willingness to show trusting actions quickly leads to the actual trust.
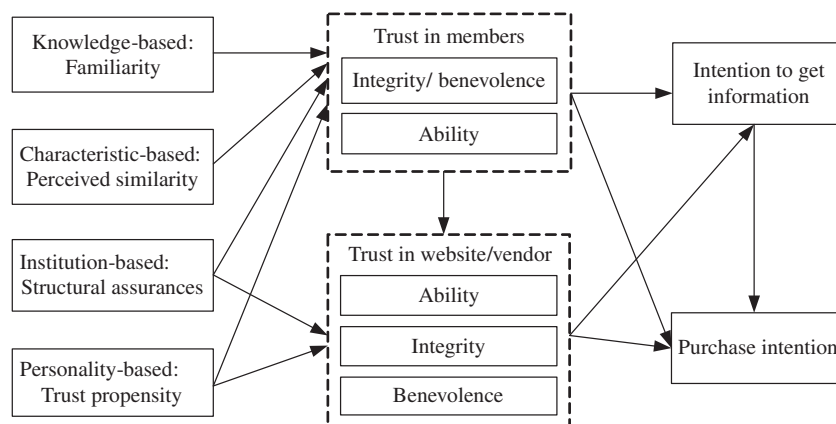

Fig. 1. The research model.

Research has shown that interactions can stimulate trust in VCs. For example, Wu and Chang (2005) studied the interactivity and trust between online travel community members and website administrators. Their results showed that the more members interact with administrators, the more they trust the administrators, indicating a significant correlation between interactivity and trust. In addition, perceived responsiveness is positively related to trust in other members in VCs, because reciprocity in an exchange relationship builds trust (Ridings et al. 2002).

In VCs, when an individual interacts with others, she becomes familiar with at least the IDs or writing styles of those who participate frequently. She may evaluate the trustworthiness of these members by judging the consistency of their messages and behaviors. Accordingly, familiarity with other members in VCs should increase the trust in members because a higher familiarity implies a larger amount of accumulated knowledge derived from experiences during previous successful interactions. Familiarity reduces uncertainty and prompts trust in long-term relationships.

H1a. Familiarity with other members in a VC will positively affect trust in other members' ability.

H1b. Familiarity with other members in a VC will positively affect trust in other members' integrity and benevolence.

3.2. Characteristic-based trust antecedent: perceived similarity

Perceived similarity refers to the trust building mechanism where trust is established based on common characteristics the trustor perceives of the trustee, including interests, values, and demographic traits. Considerable empirical studies in the traditional environment support the positive effects of similarity on the trust behavior. Evidence drawn from literatures in social psychology, counseling, and communication suggests that, in a relational context, relationship satisfaction is influenced by the similarity among individuals (Crosby et al. 1990). In the marketing literature, researchers found that shared values and beliefs about behavior, goals, and polices significantly affect trust (Dwyer et al. 1987, Morgan and Hunt 1994). Doney and Cannon (1997) found that a buying firm' trust of a seller's salesperson is significantly impacted by similarity, which assesses the buyer's belief that the salesperson shares common interests and values with people in the buying firm.

In the online environment, the same relationship exists. For instance, in book recommender systems, people are inclined to adopt recommendations from those that are more similar to them (Ziegler and Golbeck 2007). When people are grouped together in the same community, they tend to perceive each other in a positive way, which enhances their trust beliefs (McKnight et al. 1998). In a research on trust transfers on the Internet, perceived similarity between a trusted website and an unknown linked website has positive effects on trusting beliefs regarding the unknown target (Stewart 2003). Although perceived similarity between two websites is quite different from that between two persons, Stewart's findings showed that trust can transfer through perceived similarity. An individual identifies with another one who is similar to her, and this identification usually results in trust toward the identified one.

In VCs, people get together for common interests or goals. Similar interests or experiences allow for trust building among members. Feng et al. (2004) found that empathic accuracy has a significant influence on interpersonal trust online, and the strength of empathy is related to the similarity the trustor identifies with the trustee. As mentioned earlier, similarity can involve several aspects such as demographic characteristics, interests, and values.

This study focuses on interests and values as VCs are very often formed based on common goals or interests.

H2a. Perceived similarity with other members in a VC will positively affect trust in other members' ability.

H2b. Perceived similarity with other members in a VC will positively affect trust in other members' integrity and benevolence.

3.3. Institution-base trust antecedent: structural assurances

Institution-based trust is another trust building mechanism that refers to one's sense of security from impersonal structures that exist in a particular context such as guarantees or recommendations from third parties (Shapiro 1987, Zucker 1986). It contains two types of trust: situational normality and structural assurances.

Situational normality is a belief that the circumstance is normal or customary, and the transaction will be successful as things are in proper order (Baier 1986, Lewis and Weigert 1985). When the new environment is similar to normal contexts, people will feel assured as everything is as it ought to be and they can easily and directly understand what is happening. For example, stores with salespeople that look like salespeople can build trust, while those without salespeople impede trust building (McKnight et al. 1998). However, VCs in China are very similar in context. For example, in a research on online community users in China, iResearch examined 468 online communities, the majority of which took the forms of BBS, forums, IM, and blogs (iResearch 2006). Reports by iResearch showed that 75.8% of VC members had educational level of college or above, and about 70% spent one to six hours per day in VCs (iResearch 2006, iResearch 2007b). Thus, we believe that VC members have enough knowledge and spend enough time getting familiar with the functions and operations of most VCs. Hence, situational normality might not have much influence on members' trust, so we do not take it into account in this study.

Structural assurances are the beliefs that, when contextual conditions such as regulations and guarantees exist in a context, success is likely (McKnight et al. 1998). As a social network, a VC should have its own rules and regulations. Rothaermel and Sugiyama (2001) pointed out that, at the community-level, management of the community has a positive effect on members' engagement in transactions. Leaders' enthusiasm, which is related to leaders' involvement in community management, facilitates members' sense of community that is positively related to trust (Koh and Kim 2004). Privacy guarantees, community rules, and safety assurances provided by a VC will enhance trust in members and in the provider of the VC. Moreover, if the website maintains community rules and manages the VC well, members may have better confidence and trust in the website. Thus, we have:

H3a. Perception of structural assurances will positively affect trust in other members' ability.

H3b. Perception of structural assurances will positively affect trust in other members' integrity and benevolence.

H3c. Perception of structural assurances will positively affect trust in the website or vendor's ability.

H3d. Perception of structural assurances will positively affect trust in the website or vendor's integrity.

H3e. Perception of structural assurances will positively affect trust in the website or vendor's benevolence.

3.4. Personality-based trust antecedent: trust propensity

Trust propensity, also called disposition to trust, reflects one's tendency to believe or not to believe in others (Gefen et al. 2003b). It is "*a general willingness based on extended socialization and life experience to depend on others*" (Ridings et al. 2002).

Trust propensity has been shown to relate to trust, though it might be more effective when the trustor is still unfamiliar with the trustee (Mayer et al. 1995). Research shows that, when developing initial trust in a business-to-consumer (B2C) environment, trust propensity positively influences the initial trust in the website (Lu and Zhou 2007).

In VCs, trust propensity also affects an individual's trust in other people (Gefen 2000). Ridings et al. (2002) found that propensity to trust has a positive relationship with trust in members in VCs. Hence, we have:

H4a. Trust propensity will positively affect trust in other members' ability.

H4b. Trust propensity will positively affect trust in other members' integrity and benevolence.

H4c. Trust propensity will positively affect trust in the website or vendor's ability.

H4d. Trust propensity will positively affect trust in the website or vendor's integrity.

H4e. Trust propensity will positively affect trust in the website or vendor's benevolence.

3.5. Trust in the website or vendor

Communication among members in VCs plays an important role in the trust transfer from members to the vendor or community service provider. First, with such communication, firms that cheat will be punished and the honest ones will be rewarded by the consumers (Jin and Robey 1999, Klein and Leffler 1981). For a C2C website, members can share information about the service of the VC through the forums there. This would motivate members to believe that the VC provider would keep on improving its service quality. Second, trust between members makes them view the site as a shared family, and they develop a sense of community, which reduces their privacy concern. For example, Tung et al. (2001) found that involvement in VCs and trust between members facilitate trust in vendors. In addition, efforts the VC provider exerts to manage the VC will foster members' beliefs that the VC provider has shared value with them and respects its members. All these beliefs will cultivate the trust in the VC provider (Porter and Donthu 2008). Thus, we have:

H5a. Trust in other members' ability will positively affect trust in the website or vendor's ability.

H5b. Trust in other members' ability will positively affect trust in the website or vendor's integrity.

H5c. Trust in other members' ability will positively affect trust in the website or vendor's benevolence.

H6a. Trust in other members' integrity and benevolence will positively affect trust in the website or vendor's ability.

H6b. Trust in other members' integrity and benevolence will positively affect trust in the website or vendor's integrity.

H6c. Trust in other members' integrity and benevolence will positively affect trust in the website or vendor's benevolence.

3.6. Outcomes of trust related to consumer purchase behavior

A rational consumer's purchase decision-making process will follow the stages of requirement cognition, information gathering, and the purchase behavior (Ives and Learmonth 1984, Kalakota and Whinston 1997). Today, VCs have profoundly changed consumers' purchase decision-making process. For example, many people nowadays examine other consumers' reviews and experiences posted in VCs before purchasing new products. In this case, members engage in knowledge sharing to reduce their uncertainty prior to the consumption experience. Survey research showed that about 61.7% of VC members would consider other members' opinions before making purchase decisions (iResearch 2007b). In addition, about 88% of Web users gathered product/service-related information before making purchases (iResearch 2008c).

Empirical studies have shown that the intention to get information positively influences the purchasing behavior (Gefen 2002, Pavlou and Fygenson 2006). According to the Theory of Planned Behavior, behavioral intention is the most influential predictor of behavior (Ajzen 1991). In much research on consumer behavior, researchers often use intention to represent the actual behavior (Lin 2006, Lu and Zhou 2007). Thus, we use the intention to get information and the purchase intention to represent get information and purchase behaviors, respectively.

Trust between members in VCs positively affects members' behaviors such as obtaining or contributing information. For example, Ridings et al. (2002) found that trust in members significantly influences the desire to get and give information in VCs. Kankanhalli et al. (2005) revealed that general trust positively affects knowledge contribution using electronic repositories. From the view of transaction cost theory, trust prompts knowledge sharing as trust can reduce the transaction cost in the interactions between buyers and sellers (Fussell et al. 2006). We have:

H7a. Trust in other members' ability will positively affect the intention to get information.

H7b. Trust in other members' integrity and benevolence will positively affect the intention to get information.

When a consumer trusts an online store, she will be more likely to purchase there. Previous studies on e-commerce have revealed the importance of trust in affecting consumers' behavior (Everard and Galletta 2005, Gefen et al. 2003a). Thus, we propose that trust in a website or vendor will positively affect members' purchase intention.

H8a. Trust in the website or vendor's ability will positively affect the purchase intention.

H8b. Trust in the website or vendor's integrity will positively affect the purchase intention.

H8c. Trust in the website or vendor's benevolence will positively affect the purchase intention.

In VCs for a C2C website, members can be either sellers or buyers. If they trust each other, they are more likely to purchase products and services from other members who sell on the C2C website. A recent survey showed that 47.9% of VC members had purchased from VCs, and 46.8% had not yet but wanted to try in the future (iResearch 2008c). Thus, we have:

H9a. Trust in other members' ability will positively affect the purchase intention.

H9b. Trust in other members' integrity and benevolence will positively affect the purchase intention.

Consumers are likely to get information from a vendor or website if they trust it and believe that it will provide credible information. Pavlou and Fygenson (2006) found that the trust belief positively affects consumers' attitude toward getting information from a Web vendor. Gefen (2002) also found that trust in the ability of Amazon.com significantly influences consumers' intention to inquire information on a book. Thus, we believe that, when consumers trust a vendor or a website, they will be more likely to get information from the VCs it sponsors. We have:

H10a. Trust in the website or vendor's ability will positively affect the intention to get information.

H10b. Trust in the website or vendor's integrity will positively affect the intention to get information.

H10c. Trust in the website or vendor's benevolence will positively affect intention to get information.

When examining consumer e-commerce adoption, Pavlou and Fygenson (2006) hypothesized that the intention to get information positively influences the purchase intention. In their research, purchase intention refers to the desire for products of a specific type, but the consumers have not decided which specific product to buy yet. As a result, their purchase intention is an intention in the requirement cognition stage. In our research, we examine the purchase intention to buy a specific product, i.e., the purchase intention that will next result in the actual purchase. For example, a consumer who recognizes the need of a digital camera but who has no idea about which specific model to buy may go to a VC to obtain relevant product reviews and usage experiences from other consumers. In this information search process, she gradually refines her requirements and finally decides to buy a specific model by a particular manufacturer. Therefore, in this study, we propose that the intention to get information would positively affect the purchase intention. Thus:

H11. The intention to get information will positively affect the purchase intention.

4. Methodology

We next explain our research methodology. First, we introduce the VC we used to test our hypotheses. Next, we describe the process we went through to develop our research instrument. After that, we discuss the instrument validation and refinement process. Finally, we report the hypothesis testing results.

4.1. Taobao Virtual Community

The VC we examine is Taobao Virtual Community (http://www.taobao.com/forum.php), a transaction community established by Taobao.com, the largest C2C website in China. Taobao was established in May 2003 and had 39.9 million members by June 2007. The transactions on Taobao totaled 16.9 billion yuan in 2006 and reached 15.7 billion yuan in the first half of 2007. Taobao Virtual Community is one functional part of Taobao and also one of the most active VCs on the Internet. There are three reasons that we chose Taobao Virtual Community. First, to test our hypotheses about the purchase intention, we needed to use a transaction community. Taobao Virtual Community fits such a requirement. Second, Taobao is the largest C2C platform in China with heavy website traffic and mature operations. According to Alexa.com,

an Internet traffic tracking company, Taobao is the most visited e-commerce website in China and its website traffic was ranked 22nd in the world and 7th in China (Taobao.com 2007). Third, Taobao Virtual Community is a vital component of Taobao and has a close relationship with the Taobao transaction platform, as buyers and sellers are all encouraged to participate in the Taobao Virtual Community. For example, Taobao sellers can publicize their stores and learn more about consumers' preferences and needs from the VC. Meanwhile, Taobao buyers can share their purchase experiences and get product information using the VC. So the behaviors of consumers who are also members of the Taobao Virtual Community may be influenced by what they experience in the VC, thus allowing us to test our hypotheses.

4.2. Instrument development

Whenever possible, we developed items measuring the constructs by adapting existing scales developed and tested in previous research. As the original items were in English, we used the following procedures to ensure the translation validity. First, a researcher whose native language is Chinese forward translated the items into Chinese. Next, another researcher independently backward translated the items into English. Subsequently, the two researchers compared and discussed the two English versions to develop the first Chinese version of the items. We then asked two Chinese researchers in the e-commerce area and three members of the Taobao VC for feedbacks on the instrument. We made minor revisions to the instrument based on their feedbacks. Finally, the two initial translators checked this version together and finalized our Chinese questionnaire. Please see the Appendix for the scales. We measured all items using seven-point Likert scales ranging from strongly disagree to strongly agree.

There was no existing scale for familiarity with other members in VCs. Thus, taking the scale of familiarity with a Web store as reference (Gefen 2000), we developed a four-item scale for our study. These items measure the extent to which an individual becomes familiar with other members in a VC through interactions with them. Items used to measure perceived similarity were adapted partially from Crosby et al.'s (1990) research, in which they measured similarity from three aspects including appearance, lifestyle, and status similarity. In VCs, appearance and status similarities are not applicable, so we preserved four items of lifestyle similarity and replaced one item measuring political view similarity with one measuring experience similarity. Structural assurances were measured by four items adapted from Gefen et al. (2003b). We adapted items from Ridings et al. (2002) to measure trust propensity, the two components of trust in members, and the intention to get information. Items adapted from Bhattacherjee (2002) were used to measure the three dimensions of trust in the website or vendor. Three items measuring the purchase intention were adapted from Pavlou and Gefen (2004).

4.3. Data collection

We used three methods to collect data from subjects who were members of the Taobao Virtual Community. First, we distributed paper questionnaires to undergraduate and graduate students in a university in Wuhan, China. Second, we developed an online version of our survey and posted its URL on the e-market board of the Byhh BBS at Huazhong University of Science and Technology for half a month. In addition, we approached the Alliance of Universities in Taobao Virtual Community[2], which helped us to distribute

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[2] A special alliance in Taobao Virtual Community, whose members are college students in China. The goal of this alliance is to help student ventures (student stores selling products or services) on Taobao.

Table 3
Sample demographics ($N = 376$).

Measure	Item	Count	%
Gender	Male	210	44.1
	Female	166	55.9
Age	18 or below	2	0.6
	>18 and ⩽24	336	89.3
	>25 and ⩽30	31	8.2
	>31 and ⩽35	5	1.3
	>36 and ⩽40	2	0.6
Education	High school or below	3	0.8
	Two-year college	39	10.4
	Four-year college	260	69.1
	Graduate school or above	74	19.7
Length of member history	<3 months	86	22.9
	>3 and ⩽6 months	86	12.0
	>6 months and ⩽1 year	76	22.9
	>1 year and ⩽2 years	83	20.2
	>2 years and ⩽3 years	33	22.0
	Over 3 years	86	8.8
Have purchased on Taobao	Yes	278	73.9
	No	98	26.1
Types of products purchased on Taobao	Clothing and footwear	143	38.0
	Cosmetics and jewelry	73	19.4
	Computers and accessories	46	12.2
	Books	84	22.3
	Foods and health products	39	10.4
	Household appliances and audio equipments	19	5.1
	Personal digital products	50	13.3
	Household products	38	10.1
	Audio products	20	5.3
	E-card/digital card/virtual currency	67	17.8

the URL of our online survey to its student members. We received 428 responses in total. Out of the 360 paper questionnaires we distributed, 93.6% were completed. We were unable to calculate the response rates for the other two methods of data collection. After removing invalid responses including those containing more than five missing values, those with the same answer to all questions, and those who had never used Taobao Virtual Community, we had 376 valid responses, resulting in a valid rate of 87.9%.

Table 3 shows the descriptive information of the dataset. About 44.1% of the subjects were male, and 55.9% were female. As the questionnaires were delivered in universities, a majority (97.5%) of the respondents were students aged between 18 and 30 and 88.8% had education of undergraduate or above. Even though we mainly surveyed well-educated young adults, they without a doubt are the main shoppers on C2C websites. According to iResearch, more than 60% of C2C shoppers in China are between 18 and 30 years old (iResearch 2007a), and more than 60% of Taobao shoppers have undergraduate education or above (iResearch 2008d). Hence, we believe that our sample represents the major segment of C2C shoppers in China. Among our subjects, 45.8% were new members with member history of less than six months, and 12% were senior members with history over two years. Although the sample mainly consisted of new members, 73.9% showed that they had purchased on Taobao. According to the "2006 Survey Report on C2C Online Purchases in China", the top three types of products purchased on Taobao were clothing and footwear, cosmetics and jewelry, and computers and accessories (CNNIC 2006). The top three types of products purchased by our sample were clothing and footwear, books, and cosmetics and jewelry. The difference was mainly due to our student sample and their need for books and the limited income they had for the purchase of such expensive products as computers.

4.4. Data analysis

Using structural equation modeling (SEM), we first examine our measurement model and then test our hypotheses. The softwares we used are LISREL and SPSS 13.0.

4.4.1. Analysis of reliability and validity

We first used the principal components factor (PCF) analysis to examine the factorial validity of the scales. The Bartlett's Test of Sphericity generated a Kaiser–Meyer–Olkin (KMO) statistic of 0.846, which was significant at the 0.01 level, indicating that it was suitable to use the principle components factor analysis on the data. We extracted nine factors with eigenvalues above 1, and they explained about 67.512% of the variance. Based on the Cronbach's alphas and factor loadings, we deleted Items FA4 and INB4.

As all measures were self-reported, we used Harman's one-factor test to check the common method variance based on Podsakoff and Organ's (1986) suggestions. We extracted nine factors with eigenvalues greater than 1, and the first factor accounted for 23% of the total variance. Because more than one-factor emerged from the factor analysis and no factor accounted for most of the covariance in the variables, our data did not have the common method variance. Table 4 displays the factor loadings of the remaining items after the varimax rotation. The loadings of items on the expected factors are higher than 0.5, while loadings on other factors are lower than 0.5, indicating good convergent and discriminant validities. It should be pointed out that though items VAB1–VBE8 loaded on the same factor, it is reasonable as they all measure the subdimensions of trust in website/vendor.

Table 5 summarizes additional validity measures of the scales. The standard loadings of the remaining items were mostly above 0.7. The average variance extracted (AVE) for every construct was above 0.5, which means the scales had a good convergent validity (Baggozi and Yi 1988). We used composite reliabilities (CRs) to evaluate the internal consistency of the measurement model. As shown in Table 5, the CRs were all above 0.7, indicating the scales had good reliabilities (Nunnally 1978). Other statistics of the items are shown in the Appendix; all Cronbach's alpha values were above the 0.70 threshold, indicating that the scales had high reliabilities (Nunnally 1978).

We show the correlation matrix and the square roots of the AVEs in Table 6. The square roots of the AVEs are the diagonal elements and they were all larger than their corresponding correlation coefficients with other factors. This suggests that the scales had good discriminant validity.

4.4.2. Hypothesis testing

We tested our research model and summarized the results with LISREL coefficients in Fig. 2. We omit the insignificant paths in the figure. Some paths between the trust antecedents and trust were insignificant, including the path between familiarity and trust in members' integrity/benevolence ($\gamma_{1b} = 0.09$, $t_{1b} = 1.40$), the path between perceived similarity and trust in members' ability ($\gamma_{2a} = 0.15$, $t_{2a} = 1.86$), the path between structural assurances and trust in members' integrity/benevolence ($\gamma_{3b} = 0.13$, $t_{3b} = 1.74$), the paths between structural assurances and the three dimensions of trust in website/vendor ($\gamma_{3c} = 0.01$, $t_{3c} = 0.16$; $\gamma_{3d} = 0.03$, $t_{3d} = 0.48$; $\gamma_{3e} = 0.05$, $t_{3e} = 0.76$), and the path between trust propensity and trust in website/vendor's benevolence ($\gamma_{4e} = 0.04$, $t_{4e} = 0.56$). Thus, H1b, H2a, H3b, H3c, H3d, H3e and H4e were not supported. Trust in members' ability had significant influences on the three dimensions of trust in vendor/website, whereas trust in members' integrity/benevolence did not significantly affect any dimension of trust in vendor/website ($\beta_{6a} = 0.06$,

Table 4
Principal components factor analysis with varimax rotation.

Factors	1	2	3	4	5	6	7	8	9
FA1	.034	−.026	.022	.042	.104	.029	**.850**	.054	.060
FA2	.069	.031	.004	.084	.098	.061	**.861**	−.009	.034
FA3	.064	.118	−.043	.095	.114	.005	**.835**	.075	.089
PS1	.082	.094	.037	.041	**.695**	.086	.111	.079	.158
PS2	.060	.167	.093	.105	**.756**	.058	.082	−.007	.073
PS3	.054	.231	.016	.136	**.708**	−.033	.061	.134	.177
PS4	.061	.145	−.039	.103	**.719**	−.020	.092	.100	.062
SA1	.143	**.729**	.066	.056	.171	−.019	.075	.089	.183
SA2	.107	**.852**	.004	.126	.173	.049	.008	.027	.124
SA3	.126	**.829**	−.013	.100	.099	.121	−.006	.117	−.003
SA4	.021	**.712**	.004	.030	.194	.131	.057	.102	−.020
TP1	.178	.055	−.019	.168	.053	.051	.073	**.789**	.089
TP2	.120	.084	.066	.063	.118	.013	.019	**.837**	.137
TP3	−.007	.155	.077	.010	.099	.002	.031	**.748**	.021
ABI1	.154	−.010	.199	**.766**	.148	.033	.080	−.002	.072
ABI2	.151	.148	.028	**.796**	.187	.059	.000	.005	.102
ABI3	.257	.129	.089	**.720**	−.025	.117	.073	.145	.053
ABI4	.233	.073	.047	**.701**	.107	.124	.128	.147	.023
INB1	.062	.059	−.100	−.011	.122	.019	.005	.102	**.755**
INB2	.100	.090	−.016	.091	.158	−.001	.055	.073	**.838**
INB3	.204	.094	.032	.172	.169	.131	.163	.067	**.659**
VAB1	**.576**	.080	.336	.143	−.115	.094	−.045	.146	.085
VAB2	**.677**	.162	.283	.063	−.163	.053	.090	.071	.157
VIN1	**.739**	.080	.132	.115	−.033	.049	−.039	.096	.099
VIN2	**.697**	.048	.075	.123	.092	.147	−.043	.093	.089
VIN3	**.728**	.040	.064	.106	.080	.042	−.003	.073	.116
VBE1	**.655**	.058	.020	.110	.098	.006	.222	.023	−.005
VBE2	**.748**	.048	−.065	.113	.155	.126	.034	−.072	.003
VBE3	**.683**	.035	.061	.149	.142	.198	.068	.022	−.027
GII1	.211	.077	.229	.118	.021	**.820**	.016	.049	.054
GII2	.222	.154	.104	.130	.038	**.860**	.036	.019	.016
GII3	.128	.067	.241	.061	.039	**.832**	.059	.006	.070
PI1	.177	.026	**.863**	.139	.008	.194	−.028	.051	−.012
PI2	.109	.006	**.866**	.068	.061	.200	.016	.044	−.033
PI3	.204	.005	**.855**	.108	.061	.140	−.006	.032	−.083
Eigenvalues	4.345	2.761	2.667	2.572	2.498	2.402	2.340	2.085	1.960
Percentage of variance	12.413	7.889	7.621	7.349	7.136	6.862	6.686	5.956	5.600
Cumulative	12.413	20.302	27.923	35.272	42.408	49.270	55.955	61.912	67.512

$t_{6a} = 0.89$; $\beta_{6b} = 0.11$, $t_{6b} = 1.60$; $\beta_{6c} = 0.12$, $t_{6c} = 1.77$). H6a, H6b, and H6c were not supported.

As to the outcomes of trust, neither of the two dimensions of trust in members had a significant impact on the intention to get information ($\beta_{7a} = 0.18$, $t_{7a} = 1.74$; $\beta_{7b} = 0.02$, $t_{7b} = 0.31$). Trust in members' ability was found to have no positive influence on the purchase intention ($\beta_{9a} = 0.13$, $t_{9a} = 1.32$). Thus, H7a, H7b and H9a were not supported. Only the ability dimension of trust in vendor/website had a positive relationship with the intention to get information and the purchase intention. H8b, H8c, H10b, and H10c were not supported.

The proportions of variances explained were 24% for trust in members' ability, 28% for trust in members' integrity and benevolence, 31%, 38%, and 35% for trust in website/vendor's ability, integrity, and benevolence, respectively, 21% for the intention to get information, and 35% for the purchase intention. As shown in Table 7, most fit indices were within acceptable ranges except GFI, indicating a good fit between the theoretical model and the data (Chau 1997).

5. Discussion

5.1. Summary of results

Major C2C providers in China provide VCs to support their C2C platforms. The strong tie between these two types of websites has given rise to ESN. In this research, we examine trust among mem-bers of a VC, how it affects their trust in the C2C vendor/website, and how these two kinds of trust influence their purchase behavior. Based on data collected from members of the Taobao Virtual Community, an online forum associated with the largest C2C website in China Taobao.com, we find that trust plays an important role in influencing members' trust in the website and the consumer information getting and purchasing behaviors. We find that the trust building mechanism is also applicable to interpersonal trust building in VCs and examine the relationships between the fundamental dimensions of these two kinds of trust. Specifically, we have the following results.

First, familiarity is positively related to trust in members, which supports the finding that interactions among members would facilitate interpersonal trust (Wu and Chang 2005). Familiarity and structural assurances based on institutional trust both have significant effects on trust in members' ability but not on trust in members' integrity or benevolence. Interactions among members in VCs are helpful in allowing them to know others' ability but not integrity nor benevolence. This difference may be due to the nature of such a community, whose aim is to provide a platform for communicating purchase and usage experiences of products. In such a VC, there might be limited information for a member to learn about others' integrity and benevolence. Also, the loose ties among members in VCs may also present them with fewer opportunities to learn about each other's integrity and benevolence. The effects of structural assurances on trust in website/vendor are not significant either. This result is inconsistent with those from previous research on

Table 5
Results of reliability and validity analysis.

Factor	Item	Standard loading	t-Value	AVE	CR
Familiarity	FA1	0.76	15.93	0.64	0.84
	FA2	0.82	17.64		
	FA3	0.81	17.15		
Perceived similarity	PS1	0.64	12.49	0.50	0.79
	PS2	0.67	13.40		
	PS3	0.77	15.78		
	PS4	0.68	13.55		
Structural assurances	SA1	0.72	15.06	0.55	0.83
	SA2	0.86	19.31		
	SA3	0.75	15.85		
	SA4	0.61	12.32		
Trust propensity	TP1	0.73	14.28	0.54	0.78
	TP2	0.87	17.11		
	TP3	0.57	10.96		
Trust in members' ability	ABI1	0.72	14.86	0.52	0.81
	ABI2	0.75	15.76		
	ABI3	0.71	14.65		
	ABI4	0.71	14.58		
Trust in members' integrity and benevolence	INB1	0.61	11.49	0.51	0.76
	INB2	0.81	15.75		
	INB3	0.71	13.69		
Trust in website/vendor's ability	VAB1	0.76	15.70	0.64	0.78
	VAB2	0.84	17.82		
Trust in website/vendor's integrity	VIN1	0.78	16.77	0.57	0.80
	VIN2	0.76	16.15		
	VIN3	0.72	15.05		
Trust in website/vendor's benevolence	VBE1	0.66	13.21	0.55	0.78
	VBE2	0.79	16.64		
	VBE3	0.76	15.67		
Intention to get information	GII1	0.81	18.23	0.70	0.87
	GII2	0.88	20.25		
	GII3	0.82	18.35		
Purchase intention	PI1	0.91	21.55	0.72	0.88
	PI2	0.80	17.86		
	PI3	0.83	18.88		

institution-base trust where it is found effective institutions can build trust in the online vendor or website (Pavlou and Gefen 2004). This might be because the items we used to measure structural assurances only described one's sense of security from impersonal structures, such as community rules and management in VCs. Other mechanisms, such as third party, feedback mechanisms, and guarantees that facilitate trust in website/vendor, however, were not included here.

Second, as expected, perceived similarity positively relates to trust in members, which is consistent with the findings in more traditional contexts (Doney and Cannon 1997, Morgan and Hunt 1994). Our results show that, in the online environment, more shared characteristics between the trustor and the trustee will help build trust even if they cannot communicate face-to-face. Nevertheless, we find that the effects of perceived similarity on integrity and benevolence are larger than that on ability. This indicates that, in interpersonal trust, the first impression and the cognition of others' characteristics are important. The more an individual perceives to be similar to another person, the more she believes the other person to be trustworthy.

Third, trust propensity is positively related to trust in members and the ability and integrity dimensions of trust in the website or vendor, which again shows that personality has a significant influence on one's attitude toward other subjects (Gefen 2000, Ridings et al. 2002). We find the relationship between trust propensity and trust in website/vendor's benevolence to be consistent with the results of Wang and Benbasat's (2007) research on online recommendation agents. Trust propensity also has a stronger influence on trust in members than on trust in website/vendor.

Fourth, we find trust in members has a positive relationship with trust in the website or vendor. When a member trusts the community in general, she will identify with the community and trust the provider of the community. In addition, trust can transfer from members to the website or vendor, similar to the mechanism where trust transfers between websites (Stewart 2003). We take the three dimensions of trust in vendor/website into consideration and find that trust in members' ability plays an important role in prompting trust in vendor/website as it has significant influences on the three dimensions of trust in the vendor/website. However, trust in members' integrity/benevolence has no effect on any dimension of trust in the vendor/website.

Finally, trust in members does not positively affect the intention to get information. This result is inconsistent with Ridings et al. (2002) where they found both dimensions of trust in members are positively related to the desire to get information. The ability dimension of trust in vendor/website positively relates to the intention to get information, which corroborates the findings by Gefen (2002). Both the intention to get information and the purchase intention are positively affected by trust in vendor/website, or more specifically, by trust in vendor/website's ability. This might be because, in the C2C environment, the ability of the website is more important as the vendor or website just provides the platform for transactions, but not the products. A consumer would expect the transaction to be successful if she believes that the C2C website is capable of providing a safe environment and quality service, and that the merchant she transacts with has integrity and provides quality products. As expected, the intention to get information from a VC will induce the purchase intention.

Table 6
Correlation matrix and square roots of AVEs.

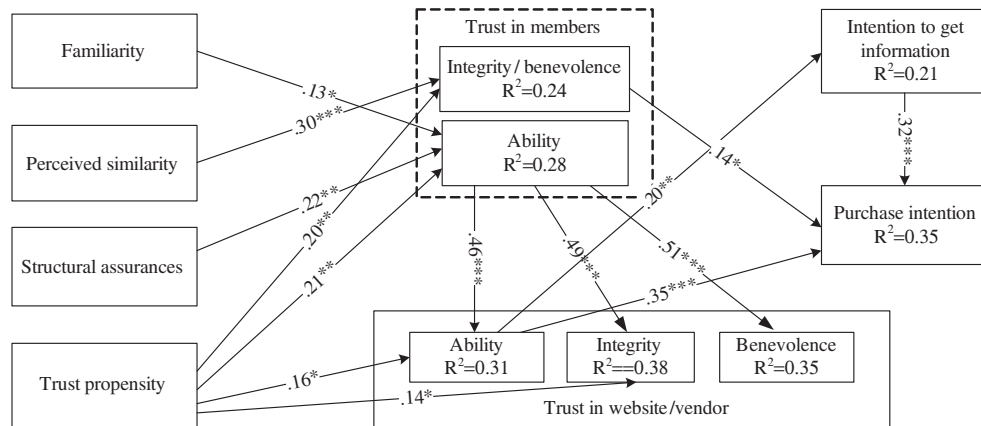|	FA	PS	SA	TP	ABI	INB	VAB	VIN	VBE	GII	PI
FA	**0.8**										
PS	0.33	**0.71**									
SA	0.18	0.53	**0.74**								
TP	0.15	0.31	0.31	**0.73**							
ABI	0.26	0.37	0.40	0.31	**0.72**						
INB	0.24	0.46	0.37	0.34	0.25	**0.71**					
VAB	0.16	0.25	0.26	0.30	0.55	0.22	**0.8**				
VIN	0.18	0.28	0.29	0.32	0.59	0.29	0.35	**0.75**			
VBE	0.18	0.27	0.27	0.22	0.58	0.28	0.33	0.37	**0.74**		
GII	0.12	0.18	0.18	0.17	0.41	0.16	0.37	0.30	0.33	**0.84**	
PI	0.09	0.14	0.15	0.16	0.32	0.13	0.48	0.23	0.19	0.45	**0.85**

Fig. 2. Standardized LISREL solution (model with only significant paths). *Note*: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

Table 7
Model fit indices and their acceptable ranges.

Fit indices	Values	Acceptable threshold
χ^2/df	942/535 = 1.76	<3
RMSEA	0.046	<0.08
NFI	0.93	>0.90
NNFI	0.96	>0.90
CFI	0.97	>0.90
GFI	0.88	>0.90
AGFI	0.85	>0.80
IFI	0.97	>0.90
SRMR	0.074	<0.08

5.2. Implications and limitations

Our research has the following theoretical contributions and practical implications.

On the theoretical side, our study empirically establishes the link between VCs and C2C websites and examines the impact of trust in the conversion from VC members to C2C buyers. Specifically, we focus on two kinds of trust: trust in members and trust in website/vendor. Furthermore, on the basis of previous studies, we examine the relationships between dimensions of two types of trust to find out which dimension plays a more important role in establishing trust in the C2C vendor/website and affecting members' purchase behavior. We also consider two important aspects of the consumer's purchase decision: get information and purchase. In previous studies, researchers have mainly focused their attention on the purchase phase. VCs may influence the information search phase as members obtain product-related information from each other and then decide what and how to buy.

Our research also has practical implications. First, trust is critical for the success of electronic commerce, and our research points out an effective way to build consumers' trust in a C2C website, especially when counterfeit goods and shoddy merchandise become a big threat to C2C development. Our research provides empirical evidence that C2C providers' efforts in building VCs are indeed important to the growth of their C2C websites, especially in establishing members' trust in them. Moreover, just as what we found, trust propensity has a greater effect on trust in members than trust in vendor/website, which might imply that people are more likely to trust a VC than a C2C transaction website. For C2C websites that do not currently support VCs, they should consider adding this function as it will encourage members interactions

and turn members into C2C buyers. For those that have VCs already, they should continue to enhance features on their VCs. Even though all major C2C providers in China offer VCs, they are not equally successful (Chen et al. 2007). Compared with Eachnet VC, Taobao VC is more successful in promoting C2C buyer and seller interactions. Our research directs C2C providers' attention to the importance of vibrant VCs to the success of their C2C websites. This is also good news to Baidu and Tencent, which already own large VC user bases. For these two companies, the critical issue is converting their VC members into C2C website customers. One way of achieving this is to add more functions and features linking their VCs to their C2C websites.

Our findings also provide suggestions for C2C websites on enhancing their VCs. For example, they should pay more attention to trust in members' ability as it plays a more important role in fostering trust in the vendor or website that further affects members' intention to get information from the VC. Therefore, only encouraging interactions among members are not enough. VCs should motivate more experienced users to share their experience and knowledge with others. This way, less experienced members can learn from the more experienced ones and form the belief that people in VCs are capable of providing useful information, which will be a more effective way to build trust in the vendor and website. We also notice that, among three dimensions of trust in the vendor or website, the ability dimension has a greater influence on members' purchase decision process. Thus for C2C providers, improving their reputation among VC members in terms of the providers' ability is more useful in encouraging the conversion from VC members to C2C buyers.

Second, our research reveals the importance of trust in building a successful VC. The VC provider will benefit from its efforts in providing structural assurances, encouraging member interactions, and providing topic- or interest-oriented forums in its online community. All these would be helpful to build trust in the VC. For example, as structural assurances facilitate trust, a VC should clearly specify the rules and norms on its website and educate members about them. When violations occur, the VC should act accordingly to enforce these rules. When members learn about the existence of such rules and the consequences of violating them, they are more likely to behave according to the norms on the VC, which will lead to a more orderly community and higher trust among members. A VC can also encourage member participation by offering rewards to popular posts or best answer to a question, which will help members become familiar with each other and then be more likely to trust each other. In addition, a VC should provide different forums oriented toward different topics, catego-

ries of products, or interests so that members of a forum are similar to each other. This similarity will make it easier for them to trust each other.

There are the following limitations to this study. First, although our sample was members of the Taobao Virtual Community, most of them were students and new members. Hence, they may not be representative of Taobao Virtual Community members. Second, compared with previous research, the variances explained in the two kinds of trust were relatively low (McKnight et al. 2002, Porter and Donthu 2008). For trust in members, we only consider factors based on the trust building mechanism. Other factors such as empathy, sense of community, and the flow experience may also influence trust in members. For trust in vendor/website, as our aim was to investigate the relationship between the two kinds of trust, we excluded other variables that might influence this trust. Examples are the reputation of the vendor, previous purchase experiences, and other institution-based mechanisms used to build trust (Pavlou and Gefen 2004). Future research can examine the impacts of these factors. Moreover, we only considered two dimensions of trust in members and integrated integrity and benevolence as one variable based on Ridings et al. (2002). Future research can separate them to examine different aspects of trust in more detail. Last, we only studied the effects of trust on the intention to get information and the purchase intention – two important aspects in the consumer purchase decision as intentions are closely related to the actual behaviors (Pavlou and Fygenson 2006). However, actual behaviors are different from intentions, and future research can examine how trust affects the actual behaviors.

5.3. Suggestions for future research

The focus of this study is more on buyers' behavior in Taobao Virtual Community, not the sellers. The trust of buyers and sellers may be different, and the outcomes may differ. Future research can investigate how VCs affect sellers' behaviors. In addition, we mainly focus on trust in members and do not consider many factors related to the website. Future research can examine such website related factors as familiarity with a store and perceived similarity between websites. To more closely examine the conversion from VC members to C2C customers, future research can also test our research model using a sample of VC members from Paipai or Youa.

A quite different type of C2C websites called Witkey websites emerged in recent years. Users on these websites sell and buy products just like those on other C2C websites. However, the products are intellectual ones, such as logo designs, article translation, and documents writing. Taskcn (http://witkey.taskcn.com/) is a typical Witkey website in China that has grown rapidly in the last few years. VCs for Witkey websites may be different from those of physical product C2C websites. How to encourage VC members to become Wikeyers is an interesting issue that deserves additional research. Future research can also explore the impact of such communities.

6. Conclusion

In this study, we examine trust building in VCs on C2C websites and how it affects a consumer's intentions to get information and purchase products. Our research results show that building trust in VC members is an effective way to establish trust in the VC's sponsor — the C2C website, and that these two kinds of trust would further affect the consumer's intentions to get information and purchase. Through examining the relationships between the dimensions of these two types of trust, we find that trust in mem-

bers' ability influences the three dimensions of trust in the vendor/website in terms of ability, integrity, and benevolence. For trust in website/vendor, the ability dimension plays an important role in affecting consumers' intentions to get information and purchase on C2C websites.

Further, our results suggest that trust in members' ability is positively affected by familiarity (knowledge-based), perceived similarity (characteristic-based), structural assurances (institution-based), and trust propensity (personality-based), while trust in members' integrity/benevolence is positively influenced by perceived similarity and trust propensity.

When a member trusts other members in the VC more, she would be more willing to get information from the VC for her purchase decision. To C2C website sponsors, providing communities for consumers to communicate and interact with each other would give them a chance to increase sales by influencing members' purchase behaviors.

Appendix. Scales and descriptive statistics

Construct/items		Mean	Standard deviation	Cronbach's alpha
Familiarity (FA)				0.838
FA1	I become familiar with the IDs of some members through reading posts, posting, or replying to messages in the Taobao Virtual Community	3.84	1.473	
FA2	I become familiar with the interests and behavioral characteristics of some members such as their writing styles through reading, posting, or replying to messages in the Taobao Virtual Community	4.05	1.481	
FA3	I become familiar with other members through reading, posting, or replying to messages in the Taobao Virtual Community	3.76	1.452	
FA4	I communicated with some members in the Taobao Virtual Community frequently (delete)	3.51	1.559	

Appendix A (*continued*)

Construct/items		Mean	Standard deviation	Cronbach's alpha
Perceived similarity (PS)				0.775
PS1	I feel members in the Taobao Virtual Community have common goals	4.26	1.406	
PS2	I feel members in the Taobao Virtual Community have similar interests to mine	4.39	1.219	
PS3	I feel members in the Taobao Virtual Community have similar values to mine	4.01	1.226	
PS4	I feel members in the Taobao Virtual Community have similar experience to mine	3.97	1.317	
Structural assurances (SA)				0.838
SA1	I am at ease communicating with other members because Taobao establishes rules for the community	4.35	1.332	
SA2	I am at ease communicating with other members because there are administrators and forum owners managing the Taobao Virtual Community	4.45	1.322	
SA3	I feel safe communicating with other members because Taobao Virtual Community provides Internet safety alerts	4.64	1.281	
SA4	I feel safe communicating with other members because I accessed Taobao Virtual Community through a well-known, reputable portal	4.48	1.340	
Trust propensity (TP)				0.757
TP1	I generally have faith in humanity	4.90	1.310	
TP2	I feel that people are generally reliable	4.73	1.274	
TP3	I generally trust other people unless they give me reason not to	4.70	1.442	

Appendix A (*continued*)

Construct/items		Mean	Standard deviation	Cronbach's alpha
Trust in members' ability (ABI)				0.815
ABI1	I feel very confident about the skills that the other members in the Taobao Virtual Community have in relation to the topics we discuss	4.61	1.144	
ABI2	The other participants on the Taobao Virtual Community have much knowledge about the subject we discuss	4.53	1.105	
ABI3	The other participants on the Taobao Virtual Community have specialized capabilities that can add to the conversation in this community	4.91	1.110	
ABI4	The other participants on the Taobao Virtual Community are well qualified in the topics we discuss	4.68	1.098	
Trust in members' integrity and benevolence (INB)				0.724
INB1	The other participants in the Taobao Virtual Community would not knowingly do anything to disrupt the conversation	4.06	1.271	
INB2	The participants in the Taobao Virtual Community are concerned about what is important to others	4.07	1.175	
INB3	The participants in the Taobao Virtual Community will do everything within their capacity to help others	4.50	1.175	
INB4	The other participants in the Taobao Virtual Community do not behave in a consistent manner (reverse coded; delete)	4.33	1.067	
Trust in the website/vendor' ability (VAB)				0.778

Appendix A (*continued*)

Construct/items		Mean	Standard deviation	Cronbach's alpha
VAB1	I believe that Taobao has the skills and expertise to meet most customer needs	5.00	1.185	
VAB2	I believe that Taobao has the skills and expertise to provide quality service to buyers and sellers	5.02	1.148	
Trust in the website/vendor's integrity (VIN)				0.801
VIN1	I believe that Taobao is fair in its conduct of transactions between sellers and buyers	4.92	1.173	
VIN2	I believe that Taobao is fair in its use of private user data collected during a transaction	4.86	1.171	
VIN3	I believe that Taobao is fair in its service policies for buyers and sellers	4.82	1.179	
Trust in the website/vendor's benevolence (VBE)				0.776
VBE1	I believe that Taobao is open and receptive to users' (buyers and sellers) needs	4.67	1.221	
VBE2	I believe that Taobao keeps its users' (buyers and sellers) interests in mind during most transactions	4.61	1.262	
VBE3	I believe that Taobao makes good-faith efforts to address most users' (buyers and sellers) concerns	4.99	1.129	
Intention to get information (GII)				0.811
GII1	I intend to come to the Taobao Virtual Community to get related information, when I want to purchase some products	5.14	1.298	
GII2	I intend to come to the Taobao Virtual Community to get related information when I need to know the characteristics of some products	5.13	1.310	

Appendix A (*continued*)

Construct/items		Mean	Standard deviation	Cronbach's alpha
GII3	I will consider coming to the Taobao Virtual Community to get related information when I need to know other people's experiences of using some products	5.12	1.248	
Purchase intention (PI)				0.903
PI1	Given the chance, I would consider purchasing products on Taobao in the future	5.72	1.102	
PI2	It is likely that I will actually purchase products on Taobao in the near future	5.75	1.116	
PI3	Given the opportunity, I intend to purchase products on Taobao	5.68	1.209	

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