

A Research of Consumers' Initial Trust in Online Stores in China

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With the development of e-commerce in China, some obstacles, such as poor Internet infrastructure and logistics problems have been gradually removed. Consumers' distrust of online stores becomes the main problem impeding the acceptance of online shopping. Initial trust is the focus of this study because most Internet users in China have no experience of online shopping. Although the technology acceptance model (TAM) has been extensively studied, it is rarely tested in the context of initial trust or in developing countries such as China. Because China has a very different cultural environment from western countries, the results of existing studies on TAM and trust may not be directly applied to China without actual examination. The study integrates TAM with initial trust to explain online shopping behaviour of Chinese consumers. The results demonstrate that perceived usefulness, consumers' trust propensity, website security and vendor reputation have significant effect on initial trust. Perceived usefulness fully mediates the relationship between perceived ease of use and initial trust as well as the relationship between perceived ease of use and purchase intention.

Keywords: Initial trust, Online trust, Online stores, TAM

ACM Classification: K.4.4 (Electronic Commerce)

1. INTRODUCTION

The Internet has grown rapidly in China. According to the CNNIC report (2006) released on 1 July 2006, the number of Internet users has exceeded 123 million. About 26% of the Internet users frequently make purchases online, which will bring over 19.31 billion Yuan (about 2.41 billion US dollars) of transaction each year (iResearch, 2005). Attracted by the large market, many foreign venture investors and well-known e-commerce companies have entered the Chinese market. For example, the Softbank Venture Capital invested \$82 million in Alibaba in 2004, which is the largest business-to-business (B2B) website in China. Yahoo! purchased 35% of the stock shares of Alibaba with \$1 billion in 2005. eBay bought the largest consumer-to-consumer (C2C) e-commerce company in China – eachnet worth \$150 million. Amazon purchased the second largest business-to-consumer (B2C) e-commerce company – Joyo.com for \$75 million. At the same time, many domestic e-commerce companies have tried to expand to the world market. For instance, the most popular Chinese search engine company – Baidu has been listed on the NASDAQ and the stock price has consistently exceeded \$150. Up to December 2005, sixteen Chinese e-commerce

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companies have listed stocks on the NASDAQ. There is no doubt that e-commerce in China has become an important and attractive market to the world.

However, compared with developed countries, e-commerce in China is very immature and still in its infant stage. Many problems have prevented it from growing quickly and one main problem is the lack of trust. This problem may be more critical in China because the level of social trust in China is unbelievably low. Opportunistic vendors may cheat their customers in one place and restart their online stores in another place. More and more Internet users consider that the distrust in online vendors is a major problem of online transactions. From January 2000 to July 2005, the percentage of Internet consumers who agreed to this argument increased from 27.64% to 48.4% (CNNIC, 2006). Prior literature also shows that the lack of trust has become the main reason for consumers to give up online shopping (Hoffman *et al*, 1999; Grabner-Krauter and Kaluscha, 2003). Due to the distrust in online vendors, consumers are more inclined to transact with physical stores or the online stores they are familiar with. Therefore, to establish consumers' trust, especially their initial trust during the first transaction is of great importance to online vendors. The reasons are twofold. First, compared with those frequent customers, new visitors may feel more uncertain about the online stores. Thus it is essential to enhance consumers' initial trust to reduce their apprehension about the online stores. Second, consumers can easily switch to another online store due to the low switching cost (Brynjolfsson and Smith, 2000), and thus building initial trust is the key to retaining customers.

The development of trust is a dynamic process. Initial trust is the first and most important phase of building trust, which includes three phases: initiating trust, maintaining trust and dissolving trust (Rousseau *et al*, 1998; Ba, 2001; Corritore *et al*, 2003). Great importance has been attached to initial trust by researchers. McKnight *et al* (1998) present a conceptual model on initial trust formation. Their model suggests that one party's disposition to trust, institution-based trust and cognition-based trust lead to his trust in another party. Institution-based trust means that trust is built because of third-party assurances, regulation and guarantees. Cognition-based trust means that building trust relies on rapid, cognitive cues or first impressions. Following this research framework, many empirical studies have been carried out. Koufaris and Hampton-Sosa (2004) found that a company's willingness to customize, reputation, perceived ease of use, perceived usefulness of websites, security of websites and trust propensity significantly influenced consumers' initial trust in the online store. McKnight *et al* (2002b) proposed a trust building model (TBM) and found that vendor reputation, site quality and structural assurance of the web significantly affected consumers' initial trust in an online vendor. McKnight *et al* (2002a) empirically validated the proposed theoretical framework in McKnight *et al* (1998), and found that disposition to trust had a significant effect on both institution-based trust and trusting beliefs. Trusting beliefs positively affected trusting intentions. Stewart (2003) found consumers' initial trust in the websites could be transferred from trusted websites through hyperlinks.

The technology acceptance model (TAM) has been widely adopted to explain users' acceptance of information technology including e-commerce (Davis, 1989; Gefen and Straub, 2000; Koufaris, 2002; Gefen *et al*, 2003b; Gefen *et al*, 2003a; Pavlou, 2003). However, it is rarely tested in the context of initial trust. Koufaris and William (2004) treat both factors of TAM as direct antecedents of initial trust and found they have a significant effect. Their research has the following limitations. First, the internal relationship between the two components of TAM is ignored. Davis (1989) argues that perceived ease of use affects users' acceptance of technology mainly through perceived usefulness. This indirect effect will be examined in this paper. Second, consumer behaviour is not included in their model. Research has found that both TAM and trust play roles in determining consumers' purchase behaviour (Koufaris, 2002; Gefen *et al*, 2003b). Thus it is essential to include

purchase behaviour in the model. However, it is difficult to directly measure actual transaction behaviour. Thus, we will measure purchase intention as the substitute of actual behaviour.

Moreover, the findings of prior studies on initial trust (McKnight *et al.*, 1998; McKnight *et al.*, 2002a; McKnight *et al.*, 2002b; Stewart, 2003; Koufaris and Hampton-Sosa, 2004) may not be directly applied to a different cultural environment, such as China, where the social trust infrastructure is almost absent. Therefore, it is necessary to conduct an empirical study on initial trust to find the significant factors leading to consumers' initial trust in China.

2. RESEARCH MODEL AND HYPOTHESES

Many factors have been found to affect consumers' initial trust building, such as consumers' trust disposition (McKnight *et al.*, 2002a; Kim and Prabhakar, 2004), company reputation (McKnight *et al.*, 2002b), company size (Kim, 2003), perceived usefulness (Koufaris and Hampton-Sosa, 2004; Hampton-Sosa and Koufaris, 2005), perceived ease of use (Koufaris and Hampton-Sosa, 2004), security control (Koufaris and Hampton-Sosa, 2004), site quality (McKnight *et al.*, 2002b; Wakefield *et al.*, 2004) and hyperlinks from trusted sources (Stewart, 2003; Stewart, 2006). These factors can be divided into three categories, that is, factors related to websites, factors related to vendors and factors related to consumers. But which are the main factors that influence consumers' initial trust building in China?

When Internet users try to purchase from online stores, they are inclined to focus on more reputable companies. The CNNIC (2006) report shows that when consumers purchase online, 61.4% of them are concerned with site reputation. Good previous shopping experience (41.4%) and perceived security (40.4%) are also considered to be important factors influencing shopping decisions (CNNIC, 2006). However, consumers cannot have online shopping experience with the site during their first visit to an online store. Thus we adopt reputation and security into the model. We also include trust propensity in the model because trust propensity is especially important in the formation of initial trust when other trust cues are not present (Gefen *et al.*, 2003a). One purpose of our research is to examine the impact of TAM on initial trust and behavioural intention. Therefore, perceived usefulness and perceived ease of use are used in the model. The research model is shown in Figure 1.

User acceptance of information technology has been the focus of IS research. TAM is a parsimonious and powerful tool for explaining user acceptance. Recently, it has been applied to e-commerce and used to explain online consumer behaviour (Koufaris, 2002; Gefen *et al.*, 2003b). TAM has two components, perceived ease of use and perceived usefulness (Davis, 1989; Davis *et*

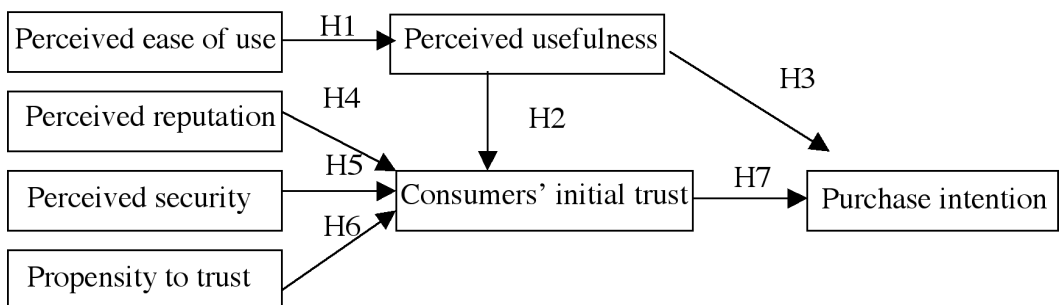


Figure 1: Consumers' Initial Trust in Online Stores

al, 1989). In the context of e-commerce, perceived ease of use means that users can easily surf websites without any problems, while perceived usefulness means that users feel performance improvement by using websites.

It has been found that perceived ease of use is the antecedent of perceived usefulness (Davis, 1989; Davis *et al*, 1989). Consumers may not feel one online storefront useful if it cannot offer good navigation, helpful guides and a clear layout (Cheskin, 1999). TAM has illustrated that perceived ease of use influences users' acceptance of technology through its effect on perceived usefulness possibly because perceived usefulness, rather than perceived ease of use, directly relates to the intended outcome of using the information technology (Davis, 1989), and this claim has been supported by other empirical studies (Davis, 1989; Gefen and Straub, 2000; Gefen *et al*, 2003a; Pavlou, 2003). Thus, this research proposes that perceived ease of use influences consumers' initial trust and purchase intention indirectly through perceived usefulness of online stores.

H1. Consumers' perceived ease of use of an online store's website positively affects perceived usefulness of the website.

H2. Consumers' perceived usefulness of an online store's website positively affects their initial trust in the online store.

H3. Consumers' perceived usefulness of an online store's website positively affects their intention to purchase from the online store.

Reputation is second-hand information about a seller's traits (Walczuch and Lundgren, 2004). Reputation is an important attribute of stores that consumers depend on to generate their trust in the online stores. The effect of reputation on trust may be more prominent in the initial phase when consumers have no direct experience with an online store. The marketing literature has argued that reputation is a valuable asset requiring a long-term investment of resources, effort, and attention to customer relationships. It is hard to establish a good reputation and easy to undermine it. Furthermore, a good reputation often signals past forbearance from opportunism (Jarvenpaa *et al*, 2000). Previous empirical studies have demonstrated that company reputation is an important factor leading to online trust. (Jarvenpaa *et al*, 2000; McKnight *et al*, 2002b; Koufaris and Hampton-Sosa, 2004; Walczuch and Lundgren, 2004). Therefore,

H4. Consumers' perception of reputation of an online store positively affects their initial trust in that store.

Security is always a critical issue with which consumers are concerned. The CNNIC report (2006) showed that 61.5 % of Internet users had never tried online shopping because they worried that transaction security cannot be guaranteed. When purchasing online, consumers are usually required to provide their personal information, such as name, age, address, telephone number and credit card number. Without a secure online environment, consumers will not trust online stores and thus will not buy anything from these online stores. Having noticed the significant role of security, online stores have made a great effort to make customers feel safe to shop in their stores. Encryption technologies such as secure socket layer (SSL) and secure electronic transaction (SET) have been used by many online stores to enhance website security and consumers' trust. In addition, online stores often post their privacy statements (Phelps *et al*, 2001; Luo, 2002; Liu *et al*, 2005) in the main pages of websites to assure consumers that their personal information will be effectively protected. In China, third parties such as TRUSTe, BBBOnline and VeriSign are absent, but some similar organizations exist, such as Trust Me (<http://www.ec315.org>), which is organized by the China

Electronic Commerce Association. These guarantees attempt to provide privacy or security assurance for online stores on the Internet. Thus, we propose:

H5. Consumers' perceived security of an online store positively affects their initial trust in the store.

Trust propensity describes the individual trait of the person that they have developed during their early age. A person with a high trust propensity is often more inclined to trust others. Trust propensity is very important in the phase of initial trust when consumers have had no prior direct interaction with online stores. When they are familiar with the stores, the importance of propensity to trust may diminish, and familiarity will act as an important factor that determines trust (Gefen, 2000). In a collective culture, Chinese trust propensity is much lower than that of people in western countries (Huff and Kelley, 2005). This may influence the effect of trust propensity on initial trust.

H6. Consumers' propensity to trust positively affects their initial trust in an online store.

Findings of empirical studies have supported that consumers' trust plays an important role in their online purchasing intention (Bhattacharjee, 2002; McKnight *et al*, 2002b; Yoon, 2002; Gefen *et al*, 2003b; Pavlou, 2003, Liu *et al*, 2005). It is difficult to measure consumers' actual purchasing behaviour. According to the theory of reasoned action (TRA) (Fishbein and Ajzen, 1975) and theory of planned behaviour (TPB) (Ajzen, 1991), behaviours of people are determined by their behavioural intention. Therefore, consumers' purchase intention is tested as a substitute for their actual purchase behaviour.

H7. Consumers' initial trust positively affects their intention to purchase from an online store.

3. METHODOLOGY

This research adopts a questionnaire survey. The questionnaire is composed of twenty-one items. Most of the items were adapted from the existing literature and all of them were translated into Chinese. Some changes were made to make the questions suitable for Chinese reading habits. In addition, a question asking subjects whether they had ever visited the surveyed website was added into the questionnaire to ensure that all subjects were first time visitors to the website. A five-point Likert scale was employed that ranged from 1 (strongly disagree) to 5 (strongly agree) (Likert, 1932). After the questionnaire had been completed, it was sent to two electronic commerce experts for advice. They emphasized that the questionnaire items should be clear and understandable. The final questionnaire is displayed in the Appendix. Then a pilot test was carried out among 30 senior undergraduates, whose majors are information management and computer science. Results showed that the questionnaire had a good reliability and validity.

The subjects of the survey were 200 senior undergraduates and MBA students in the School of Management, Huazhong University of Science and Technology (HUST). The university is located in Wuhan, where e-commerce development is in the medium level in China. As a new thing, online shopping is mainly popular in the younger generation including college or graduate-school students. The statistics also showed that young people with university education were a major part (47.7%) of online consumers in China (CNNIC, 2006). Thus, it was reasonable to use undergraduates and MBA students as our subjects in this research.

The survey was carried out in the Electronic Commerce Lab in the School of Management, HUST. At first, a survey was made to explore how many times they had browsed and purchased online. The results showed that 65% of the subjects had browsed a few well-known online stores, but only about 10% of them had made a purchase online. Then they were told to write down which

websites they had visited or shopped. These websites included Dangdang (<http://www.dangdang.com>), Joyo (<http://www.joyo.com>), eBay China and Taobao, all of which were reputable e-commerce websites in China.

The subjects were asked to visit the website: zon100.com. Zon100.com was an unknown local B2C e-commerce website, which sold all kinds of commodities. This site was selected to avoid the potential reputation effect with the well-known online stores. Students were told to browse the website and make some virtual purchase or they could make a real purchase if they wanted. Then the subjects were asked to fill out a questionnaire regarding their shopping experiences on the website. The questionnaire included two parts: personal information and surveyed items.

All the 200 questionnaires were returned and then scrutinized by researchers. Those papers where subjects answered they had previously visited the surveyed website were dropped. Overall, we obtained 193 valid questionnaires. The age of the respondents varied from 20 to 25, and 67.6% of them were male. About 82% of the respondents have used the Internet for three years, and almost 92% of them spend over 10 hours on surfing the Internet each week. The demographic information of the respondents was basically consistent with the characteristics of Internet users described in the CNNIC report (2006).

4. RESULTS

Following the two-step approach suggested by Anderson and Gerbing (1988), we first examined the measurement model, testing the reliability and validity of the questionnaire. Then the structural model was examined to test the model hypotheses.

First, reliability of the questionnaire was measured by using SPSS11.5. Reliability is about the measurement accuracy and reflects the extent to which the respondent can answer the same questions or close approximations the same way each time (Straub *et al*, 2004). Internal consistency reliability (ICR), measured with Cronbach alpha coefficient, is the most often used reliability scale. According to Nunally (1978), an alpha value of 0.70 or higher indicates a sufficient internal reliability. As can be seen in Table 1, all Cronbach alpha values of items are above 0.8. The results show that the questionnaire has good reliability. The means, standard deviation (Std Dev) and Cronbach alpha value of each construct are displayed in Table 1.

Second, the principal components analysis (PCA) was conducted to explore the validity of the questionnaire, including convergent validity and discriminant validity. Before the PCA was implemented, the value of the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity was tested to

Construct	Mean	Std Dev	Alpha
EAS	3.399	0.933	0.918
USE	3.207	0.976	0.899
REP	3.579	1.018	0.937
SEC	3.012	1.107	0.924
PRO	3.112	1.075	0.912
TRU	3.123	1.104	0.892
PUR	2.836	1.089	0.985

Table 1: Means, Std Dev, and Cronbach Alpha of Constructs

examine whether the data were suitable to conduct a PCA. KMO is the ratio between the squared sum of simple correlation coefficients and the squared sum of partial correlation coefficients among variables. When common factors exist among variables, partial correlations among these variables will be small and the KMO value will be large. Bartlett's test of sphericity tests the null hypothesis: the correlation matrix is an identity matrix. If this hypothesis cannot be rejected, data will not be suitable for PCA.

The results reveal that the value of KMO is 0.873 and Bartlett's test of sphericity is significant at the level 0.000. Thus the data are suitable for a PCA. The factor matrix with varimax rotation is shown in Table 2. The factor matrix shows the loadings of items on related factors and cross-loadings of items on other factors. With varimax rotation, the difference between loadings and cross-loadings is enlarged and it is easy to find common factors. As shown in Table 2, all the items have high loadings on their related factors (shown in bold) and have very low loadings on the unrelated factors after varimax rotation, demonstrating that the questionnaire has good convergent validity and discriminant validity (Gefen *et al*, 2000). These seven factors explain 88.046 percent of the total variance. The variance explained by each factor is listed in the last row of Table 2.

Third, the structural equation modeling (SEM) software, LISREL8.54, was used to test the

	PUR	REP	SEC	EAS	PRO	USE	TRU
PUR2	.902	.116	.125	.134	.209	.199	.187
PUR3	.899	.131	.102	.137	.193	.201	.202
PUR1	.873	.108	.128	.133	.230	.210	.241
REP3	.071	.886	.170	.066	.153	.137	.122
REP1	.134	.867	.123	.097	.255	.161	.162
REP2	.129	.861	.145	.108	.178	.168	.206
SEC1	.079	.136	.912	.108	.100	.029	.161
SEC2	.160	.088	.909	.103	.017	.048	.147
SEC3	.057	.177	.865	.094	.206	.083	.052
EAS1	.120	.084	.062	.884	.154	.156	.144
EAS3	.046	.107	.139	.883	.188	.179	.088
EAS2	.171	.060	.112	.876	.044	.127	.071
PRO2	.232	.208	.084	.124	.856	.194	.153
PRO3	.211	.179	.157	.167	.828	.103	.139
PRO1	.188	.261	.134	.158	.766	.153	.243
USE1	.167	.157	.000	.223	.033	.852	.179
USE3	.161	.174	.074	.220	.173	.850	.146
USE2	.264	.149	.110	.078	.242	.781	.161
TRU1	.212	.129	.152	.049	.232	.146	.845
TRU2	.211	.250	.107	.158	.159	.187	.808
TRU3	.290	.217	.250	.220	.157	.258	.679
Var. %	13.977	13.077	12.921	12.800	12.221	12.058	10.993

Table 2: Factor Matrix with Varimax Rotation

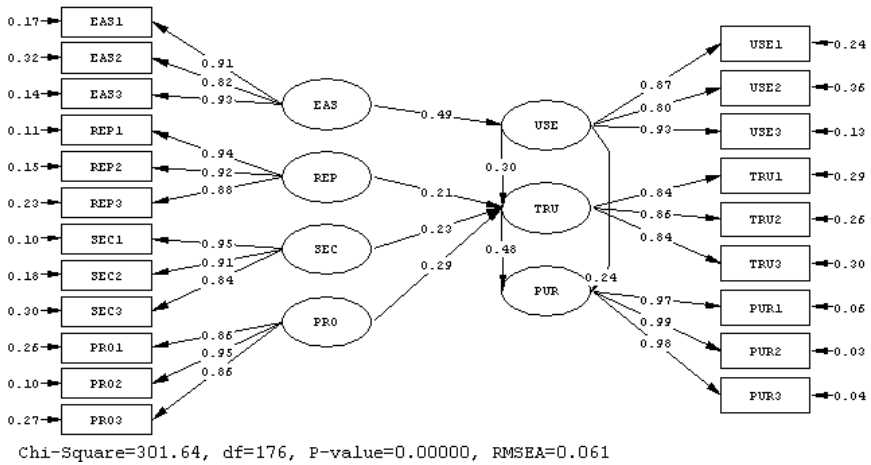


Figure 2: The Path Diagram Output by LISREL

model (Joreskog and Sorbom, 1996). SEM, as a second-generation statistics technique, has many advantages compared with first-generation statistics techniques including regression and analysis of variance. For example, SEM can deal with multiple dependent variables and measurement errors of both independent and dependent variables. LISREL is the representative tool of covariance-based SEM (Gefen *et al*, 2000). SEM includes two parts: measurement equation and structural equation. The measurement equation measures the relationship between indicators and latent variables. The structural equation measures the relationship between latent variables. SEM can estimate measurement equation and structural equation at the same time. With this characteristic, SEM can determine a more exactly estimated result compared to the traditional regression analysis.

The estimated results are shown in Figure 2. All standardized item loadings are larger than 0.80. T-values of the loadings are used to examine the significance of these loadings and results show that all loadings are significant at $p < 0.01$. This further demonstrates that the questionnaire has good validity and reliability (Gefen *et al*, 2000).

Figure 3 depicts the causal relationship between the seven constructs in the research model. All hypotheses are significant at the level of 0.01 or 0.001. Squared multiple correlations (SMC)

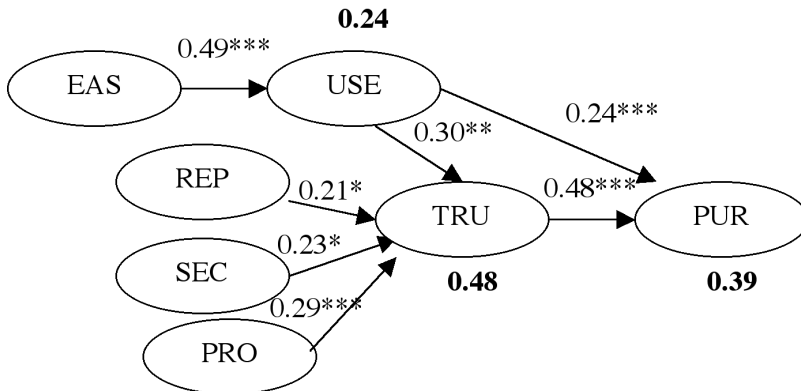


Figure 3: Path Diagram of the Causal Model (* $p < 0.01$; ** $p < 0.001$; bold figures are SMC)

Fit Indices	Recommended Value	Model Value
RMSEA	<0.08	0.061
GFI	>0.90	0.870
AGFI	>0.80	0.829
NFI	>0.90	0.957
NNFI	>0.90	0.976
CFI	>0.90	0.980

Note: RMSEA represents for Root Mean Square Error of Approximation, GFI for Goodness of Fit Index, AGFI for Adjusted Goodness of Fit Index, NFI for Normed Fit Index, NNFI for Non-Normed Fit Index and CFI for Comparative Fit Index.

Table 3: Fit Indices, Recommended Values and Model Values

coefficients of USE, TRU and PUR are 0.24, 0.48 and 0.39, respectively. SMC is the equivalent of R^2 in linear regression. It shows the percentage of explained variance in the dependent variable by all the independent variables.

The Chi-square value of this model is 301.64, which is significant at 0.01. An insignificant value of Chi-square indicates that the model has good fitness. However, the value of Chi-square could be influenced by the sample size. Thus a significant Chi-square value does not necessarily mean a poor model. Fit indices of the structural model are shown in Table 3. Except the value of GFI (GFI measures the fit of the generated covariance matrix to the sample covariance matrix and larger GFI value means better fitness), which is lower than the recommended value, other fit indices are within the accepted threshold. Therefore, the model basically has a good fit with the sample data.

5. DISCUSSION

The results demonstrate that all the hypotheses are supported. As shown in Figure 3, perceived ease of use significantly influences perceived usefulness. We conducted a post-hoc analysis by adding a path from perceived ease of use to initial trust and re-estimated the model. The path coefficient was 0.07, which was insignificant. Also, a path from perceived ease of use to purchase intention was added and the result was not significant, either. Thus, perceived usefulness fully mediates the relationship between perceived ease of use and initial trust as well as the relationship between perceived ease of use and purchase intention. The results are consistent with the findings by Davis (1989).

Perceived usefulness has significant effect on initial trust. This demonstrates that consumers are more concerned with website usefulness when they build their initial trust in online stores. Website usefulness involves many aspects, such as rich information, service quality, variety of goods, personalized recommendation and quick responses to consumers' questions. Consumers may have different views about the usefulness of websites. For some consumers, they go shopping online for the sake of saving time, and thus care more about service quality. For others, they pay special attention to favourable prices. However, providing a powerful and convenient website platform to consumers is the basis for online stores to earn consumers' trust. In fact, many online stores in China have been trying to reach this goal. For example, when purchasing online a few years ago, customers were always required to fill out a long form, registering detailed personal information such as name, address, interests and telephone number. This often made customers give up their shopping intention. Nowadays, the initial shopping registration process has been significantly

simplified and consumers only need to provide basic information. Another example is the payment issue of online shopping. Several years ago, the only available payment method was to send money to the online stores offline through post offices. Now online payment mechanism has matured, and all the banks in China have been interconnected through China Union Pay. Consumers can choose any kind of bankcards to pay for their orders online.

Consumers' propensity to trust is another important factor determining their initial trust in online stores. Due to the lack of social trust in China, consumers generally have low trust propensity. This research shows that the higher the trust propensity is, the higher the initial trust is. Thus, the government should attempt to change the *status quo* of the low social trust in Chinese society.

Perceived security is also a significant factor that impacts on initial trust. In fact, security has been the focus since the origin of e-commerce. Internet security has been greatly improved during the past years because of the joint efforts of government and enterprises. The government has taken several effective measures to deal with security from the perspective of technology, regulation or legislature. For example, the Chinese government implemented the first law on electronic commerce – Electronic Signature Law on 1 April 2005 (PRC., 2005). This law is aimed to legitimize electronic signature and protect the transaction security of e-commerce. In addition to the government effort, practitioners have also tried to assure customers that both their private information and money will be protected effectively. For example, they post privacy policies in the main pages of websites to alleviate consumers' privacy concerns (Belanger *et al*, 2002).

Reputation has a relatively weaker impact on initial trust. This result may be influenced by our student sample. Students are more familiar with the Internet and are more sensitive to prices. They will judge the credibility of an online store according to their own experience. An online store with little or no reputation, but providing products of high performance-to-price ratio will also earn their trust. Thus the effect of reputation on their initial trust may decrease. However, among many factors possibly influencing online consumers' shopping decisions, reputation is the first one with which they are concerned (CNNIC, 2006). Thus online stores are still required to make great effort to improve their reputation among consumers.

Consumers' purchase intention is impacted by initial trust and perceived usefulness of an online store's website. Of these two factors, initial trust plays a relatively large role in determining consumers' behavioural intention. Also perceived usefulness has a direct effect on behavioural intention and this result is consistent with the findings of Davis (1989) and Davis *et al* (1989).

6. CONCLUSION

The current study is the first step on initial trust in the Chinese business environment, and there are many future research directions. First, this study only examines a limited number of factors that influence consumers' initial trust building. There are many other factors that may impact on initial trust such as brands, trust transfer and institutional cues. Future research can examine their effects on initial trust. Second, the investigated website dealt with commodity goods. Thus the results of this study need to be extended to other kinds of e-commerce websites such as websites providing tourism bookings. Third, the establishment of trust is a dynamic process. How initial trust develops into general trust deserves further consideration.

The findings of this study can shed light on e-commerce practices in China. For those companies that have built online stores on the Internet, the first challenge is to attract new visitors and establish their initial trust in their online stores. The results of this research demonstrate that, at present, consumers are more concerned with usefulness of websites, website security and vendor reputation. Thus online stores should provide high-quality websites and services to satisfy their consumers, and

eventually improve the consumers' perceived usefulness of their store websites. In addition, online stores should always focus on the security of websites and take all possible measures including advanced technologies and strict rules to protect consumers' privacy and financial information. Obtaining a good reputation is not easy and it requires online stores to make a continuous investment and effort. However, some methods such as advertising and linking their own websites with other well-known companies may help the online stores quickly improve their popularity.

A few limitations exist in this research. First, senior undergraduates and MBA students were chosen as our subjects. Other Internet users, such as online shoppers with a monthly income, should be included in the research in the future. Second, the model only tests several important factors that influence consumers' initial trust. There are many other factors leading to trust, which may require empirical validation in future research. Third, because we only let subjects make a virtual purchase, the actual behaviour cannot be tested and behavioural intention is used as the substitute. Future study needs to pay more attention to the actual behaviour.

Combined with TAM, this paper examines the antecedents of Chinese consumers' initial trust in online stores. Considering the importance of the TAM in explaining consumers' initial trust and behavioural intention, we feel that the TAM should be more thoroughly investigated in Chinese business settings. Compared with developed countries, the Internet and its e-commerce applications are novel for most Chinese people. It is well known that the success of new technology is greatly dependent on user's adoption. Therefore, it is necessary for researchers to apply the TAM to explore to what extent users will adopt these new technologies in China.

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APPENDIX

Scale and items

Perceived ease of use (EAS) (adapted from Davis (1989))

EAS1: It is easy for me to learn using the website.

EAS2: It is not difficult to operate the website efficiently.

EAS3: It is easy to interact with this website.

Perceived usefulness (USE) (adapted from Davis (1989))

USE1: The search function of this website is useful for me.

USE2: I can quickly find and acquire what I want in this website.

USE3: The website improved my efficiency of purchase.

Perceived reputation (REP) (adapted from Koufaris and Hampton-Sosa (2004))

REP1: The online store is well known.

REP2: The online store has a good reputation.

REP3: The online store is respected by people.

Perceived security (SEC) (adapted from Koufaris and Hampton-Sosa (2004))

SEC1: The online store takes security measures (such as encryption) to protect customers' interests.

SEC2: The online store assures that the transaction information will be transmitted securely.

SEC3: I feel the payment system of this online store is secure.

Propensity to trust (TRU) (adapted from McKnight *et al* (2002a))

PRO1: I think most people are reliable.

PRO2: I will always trust a person until he/she cheats me.

PRO3: I have faith in humanity.

Initial trust (TRU) (adapted from Lee and Turban (2001))

TRU1: I feel that this online store is reliable.

TRU2: I think this online store will keep its promise.

TRU3: I believe this online store will use my information reasonably.

Intention to purchase (PUR) (adapted from Liu *et al* (2005))

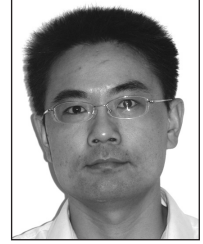
PUR1: I would like to buy from this online store.

PUR2: I will revisit this online store and purchase from it later.

PUR3: I would like to provide my credit card information to this online store.

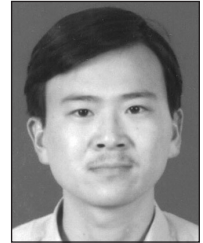
BIOGRAPHICAL NOTES

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