

DETERMINANTS OF ONLINE CUSTOMER SATISFACTION IN AN EMERGING MARKET – A MEDIATOR ROLE OF TRUST

*Nguyen Thi Tuyet Mai**, *Takahashi Yoshi***, *Nham Phong Tuan****

Abstract

Background. Customer satisfaction, in many cases affected by trust, is critical to the post-consumption intention and is regarded as the key success factor of sales in general and electronic commerce websites in particular. However few studies indicate clearly the determinants and especially their influential strengths on online customer satisfaction in emerging markets.

Research aims. This study investigates what factors determine customer satisfaction.

Methods. Conducted research is using data collected from 758 online customers in Vietnam, mostly young people.

Key findings. The particular contribution of these results shows that distributive fairness, customer interface quality, perceived security, perceived usefulness and trust are significant predictors of customer satisfaction; especially, the mediator role of trust is proved.

Keywords: Young online customer satisfaction, Trust, E-commerce, Mediator role

INTRODUCTION AND BACKGROUND

The appearance of the Internet has paved the way for the rapid growth of electronic commerce (e-commerce). The economy and transaction methods have turned a new page since high-technology systems were exploited by applications. Finding partners and customers is not limited by state borders and therefore the choice of products/services has increased due to more suppliers from all over the world, available on the Internet. Besides more opportunities, the competition among electric vendors (e-vendors) has grown, especially for emerging markets where many international giants operate. Hence marketers have tried to keep customer intention by raising customer satisfaction mainly through improving trust.

* Nguyen Thi Tuyet Mai, Graduate School for International Development and Cooperation, Hiroshima University.

** Takahashi Yoshi, Graduate School for International Development and Cooperation, Hiroshima University,

*** Nham Phong Tuan, University of Economics and Business, Vietnam National University



One approach online companies can adopt is ensuring distributive fairness and procedural fairness. Distributive and procedural fairness will trigger the feelings of equity of outputs (what is received), departed from inputs (what is invested) (Adams, 1963, p. 347, 1965) and of outcome-determining procedures (Folger & Greenberg, 1985). From then, trust and customer satisfaction will be maintained (Chiu, Lin, Sun, & Hsu, 2009).

Other aspects include customer interface quality, perceived security and perceived usefulness. In offline commerce, face-to-face interaction may directly satisfy buyers through supporting services. In e-commerce, salespeople interact via website interfaces. The challenges facing online sellers are to alleviate the uncertainty of incomplete or distorted information (Ba & Pavlou, 2002) as well as ensure the security for sensitive contents and transactions. Moreover, in emerging markets, customers' trust in virtual transactions is not strong. Therefore, the mission of web designers is to create an attractive interface, updating latest information, and security systems, thus enhancing the perception of usefulness among customers. However, few studies investigate the above mentioned cognition related to determinants of trust and satisfaction in online contexts in emerging markets. Furthermore, trust is definitely one of the important factors that have an impact on customer satisfaction (Chiou, 2003; Singh & Sirdeshmukh, 2000) but few efforts are made to estimate trust as the key mediator for paths to satisfaction in post-consumption intention. The above reasons motivate our work to profoundly understand the impacting factors on trust and satisfaction along with the mediator role of trust.

Literature Review

Trust. Trust has been conceptualized by previous scholars in a variety of ways, both theoretically and empirically. Gefen, Karahanna, and Straub (2003) summarize prior conceptualizations into four main categories: trust is viewed as (a) a set of specific beliefs relying on the integrity, benevolence and ability of an exchange partner in order to achieve a desired but uncertain objective in a risky situation (Doney, Cannon, & Mullen, 1998; Ganesan, 1994; Giffin, 1967), (b) a general belief that people are trustworthy (Gefen, 2000; Hosmer, 1995; Moorman, Zaltman, & Deshpande, 1992), sometimes measured as trusting intentions (McKnight, Cummings, & Chervany, 1998) or "the willingness to be vulnerable" (Schoorman, Mayer, & Davis, 2007, p. 347), (c) "feelings of confidence and security in the caring response" (Rempel, Holmes, & Zanna, 1985, p. 96), (d) a combination of these elements. For example, Doney and Cannon (1997) combine the first two conceptualizations into one.

In online shopping, trust is also conceptualized in diversified ways, based on the four above categories, but more specifically in terms of objectives or contexts. For example, trust in e-commerce is a belief in com-



petence, benevolence, and integrity (McKnight, Choudhury, & Kacmar, 2002; Pavlou & Fygenson, 2006) or expectations that others will do as expected (Jarvenpaa, Knoll, & Leidner, 1998), therefore these definitions belong to the first category. Other examples include trust in e-commerce as being conceptualized as a general belief in an e-vendor that leads to behavioral intentions (Gefen, 2000) or a consumer's willingness to become vulnerable to the seller of an Internet store (Jarvenpaa, Tractinsky, & Saarinen, 1999), so these conceptions belong to the second category. Our definition agrees with and relies on the concept of McKnight et al. (2002) and Pavlou and Fygenson (2006) in the first category because identically to them, in our study trust is seen from the aspect of customers' beliefs about the quality of e-vendors, not about their willingness to be vulnerable or security. Thus, trust is defined in this study as specific beliefs in the competence, benevolence, integrity and trustworthiness of an e-vendor.

Trust is vital in many business relationships (Kumar, Scheer, & Steenkamp, 1995; Moorman et al., 1992), especially in online shopping and in emerging markets because here transactions contain an element of risk and vulnerability (Reichheld & Scheffer, 2000). Trust is also a critical aspect of e-commerce because the lack of assured guarantees and the indirect character of transactions may result in unfair pricing, privacy violations, or unauthorized tracking (Gefen, 2000). Actually, some suggestions point out that online customers generally avoid distrusted e-companies (Jarvenpaa et al., 1999; Reichheld & Scheffer, 2000). Since trust is the central aspect in many e-transactions but few studies research its role as a mediator between cognition during online shopping and post-consumption intention including customer satisfaction.

Customer satisfaction. There are many definitions of customer satisfaction in the literature. However, these definitions can be categorized into two main groups: (a) a cognitive process of comparing what a customer receives (rewards) against what they achieve with a service (costs); and (b) an emotional feeling departing from an evaluative process. An example of the first group: customer satisfaction is defined by Oliver (1997, p. 14) as "fulfillment, and hence a satisfaction judgment, which involves at the minimum two stimuli - an outcome and a comparison referent", used by Iglesias and Guillén (2004) as a complete evaluation of the accumulation purchase and consumption experience, from which a comparison between the sacrifice experienced and the perceived rewards is reflected; by Churchill and Surprenant (1982) as an outcome of purchase and use resulting from buyers' comparison of the rewards and costs of a purchase in relation to the anticipated consequences. An example of the second group: customer satisfaction is defined by Tse and Wilton (1988, p. 204) as an "evaluation of the perceived discrepancy between prior expectations



(...)and the actual performance of the product”; by Oliver (1997, p. 13) as “consumer’s fulfillment response”; by Howard and Seth (1969) as a cognitive state about the appropriateness or inappropriateness of the reward received in exchange for the service experienced by a buyer; or by Westbrook (1981) as an emotional state that occurs in response to the evaluation of a service.

Recently, along with the boom in the Internet and e-commerce, many studies are conducted with an aim to extend our understanding of satisfaction in the virtual environment. In e-commerce, customer satisfaction is also conceptualized according to the two main groups mentioned above. For the first group, both Szymanski and Hise (2000) and Evanschitzky, Iyer, Hesse, and Ahlert (2004) define customer satisfaction as consumers’ judgment of how the Internet retail experience and traditional retail stores compare. For the second group, customer satisfaction is defined as a customer’s contentment with a given e-commerce store (Anderson & Srinivasan, 2003). In this study, we conceptualized in unison with Anderson and Srinivasan (2003) in the second group because similarly we care about contentment of customers rather than cognitive processes. Therefore customer satisfaction in online shopping is defined as the contentment of customers after shopping in a given virtual store.

Customer satisfaction is very important in online shopping where human-to-human interactions is replaced by human-to-machine interactions (Evanschitzky et al., 2004). Moreover, due to strong competition in e-commerce and easily introducible changes in other stores, dissatisfied customers are more likely to yield to the overtures of other competitors (Anderson & Srinivasan, 2003). However, few studies have comprehensively covered the determinants of customer satisfaction in the post-consumption intention in emerging markets, although the role of trust as the key to customer satisfaction is well discussed in those studies.

Research Model and Hypotheses Development

The following sub-section will discuss the relationships concerned. Some of our hypotheses aim to investigate the direct effects of cognitive determinants on customer satisfaction after excluding the indirect ones through the mediation of trust. However, we have to rely on the literature on the total (direct + indirect) effects for developing those hypotheses due to a lack of precise discussion on the issue.

The proposed model is shown in Figure 1.



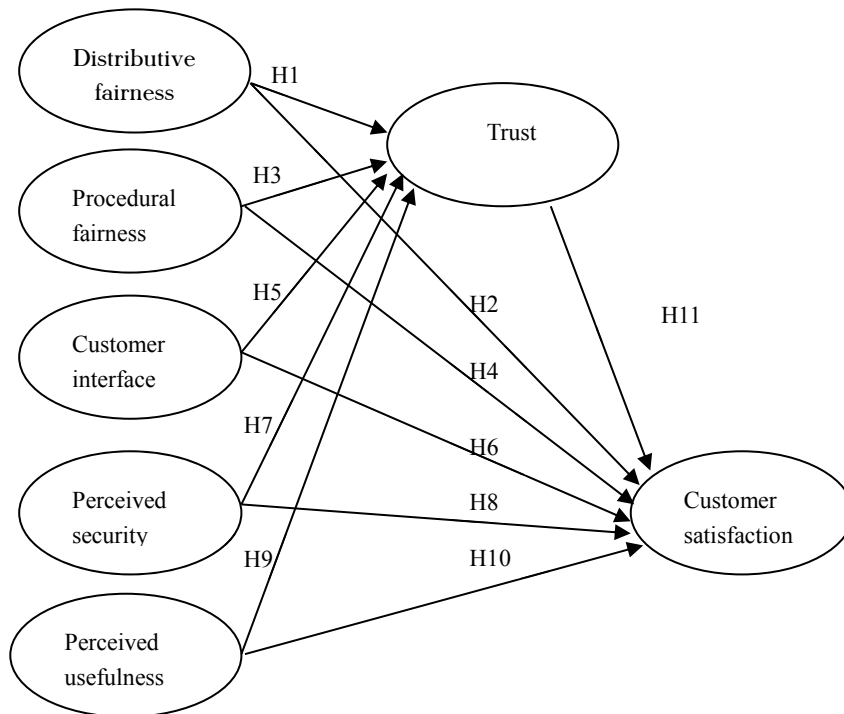


Figure 1. Research model

Source: own elaboration.

Distributive fairness. Distributive fairness, also known as perceived fairness of outcomes, was introduced by Adams (1963). Adams emphasized that there are correlations between inputs and expected outcomes. Expectation departs from contributions to an exchange, for which a fair return will be hopefully gained.

Interestingly, many previous studies mention the relationship between distributive fairness and trust. Pilai, Williams, and Tan (2001) had a strong argument on high levels of trust ensuing fair outcomes distributions. Besides, equity theory is developed to confirm that individuals will be encouraged to trust if they can receive fairly distributive satisfaction (Adams, 1965; Blodgett, Hill, & Tax, 1997). Particularly in the case of e-commerce, Chiu et al. (2009) added that when customers find products equal to their expectations, the level of their trust in the vendor raises.

On the other hand, distributive fairness is also found to be correlated with customer satisfaction. Distributive fairness is traditionally explored as a predictor for customer satisfaction (Huppertz, Arenson, & Evans, 1978). According to the research of Kumar, Scheer, and Steenkamp (1995) and Oliver and Desarbo (1988), in marketing channels, distributive fairness will



build good customer satisfaction among buyers when the inputs and outputs of an exchange are considered in purchase transactions. Oliver and Swan (1989) posited that distributive fairness influences outcomes including customer satisfaction about products/services and from then it will spill over onto a larger question of customer satisfaction with sellers. Consistent with the theoretical discussion in psychology, other studies have supported the positive effects of distributive fairness on customers satisfaction (del Río-Lanza, Vázquez-Casielles, & Díaz-Martín, 2009; Homburg & Frst, 2005; Maxham & Netemeyer, 2003; Sinha & Batra, 1999; Smith, Bolton, & Wagner, 1999; Tax, Brown, & Chandrashekar, 1998; Vaidyanathan & Aggarwal, 2003). In an e-commerce context, Chiu et al. (2009) also tested successfully the impacts of distributive fairness on customer satisfaction.

Thus, based on the above discussion, we propose the following hypotheses:

Hypothesis 1 (H1): Distributive fairness positively influences trust in online shopping.

Hypothesis 2 (H2): Distributive fairness positively influences customer satisfaction in online shopping.

Procedural fairness. Another stream of fairness is procedural fairness which refers to the equity of the process of determining outcomes (Folger & Greenberg, 1985). Procedural fairness is utilized to ensure provision of accurate, unbiased, correctable, representative information and conformance with standards of ethics or morality (Leventhal, 1980).

The relationship between procedural fairness and trust is found in many studies. According to Pearce, Bigley, and Branyiczki (1998), trust as well as organizational commitment results from procedural fairness in co-workers. The same idea of a relationship between procedural fairness and trust was also supported by the research of Cohen-Charash and Spector (2001) and Aryee, Budhwar, and Chen (2002). In an online shopping context particularly, Chiu et al. (2009) argued that the perceived fairness of policies and procedures of shopping in the virtual markets has an influence on trust.

On the other side, the correlation between procedural fairness and customer satisfaction has been estimated. Previously, scholars emphasized the importance of procedural processes in which receivers do not feel satisfied even though they obtain favorable returns. In contrast, they are happy with fair procedures even if the outcomes are not proportional (Lind & Tyler, 1988). Besides, Teo and Lim (2001) and Maxham and Netemeyer (2002) indicated the positive effect of procedural on customer satisfaction. Many researchers also find positive influences of procedure on customer satisfaction in service encounters (Bolton, 1998; Hui & Bateson, 1991; Smith et al., 1999), in complaint handling (Goodwin & Ross,



1989; Homburg & Frst, 2005; Tax et al., 1998), in organization (Brockner & Siegel, 1995), in service quality (Seiders & Berry, 1998; Smith et al., 1999; Tax et al., 1998) and also in online shopping (Chiu et al., 2009).

Therefore:

Hypothesis 3 (H3): Procedural fairness positively influences trust in online shopping.

Hypothesis 4 (H4): Procedural fairness positively influences customer satisfaction in online shopping.

Customer interface quality. Customer interface quality is a concept involving many aspects and is measured in different ways. Negash, Ryan, and Igbaria (2003) mentioned three facets: information quality (information and entertainment), system quality (interactivity and access) and service quality (tangibles, reliability, assurance, responsiveness, and empathy). Parasuraman, Zeithaml, and Malhotra (2005) utilized four dimensions: efficiency of the website, system availability, privacy, and the post-transaction experience whereas five transaction process-based (eTransQual) measures including functionality, design, enjoyment, process, reliability and responsiveness were developed by Bauer, Falk, and Hammerschmidt (2006). Convenience, interactivity, customization, and character are four dimensions of the research of Chang and Chen (2009). In order to avoid overlapping with other factors (distributive fairness and procedural fairness), this study just wants to focus on text and picture displays, because for online shoppers, friendly and effective user interfaces with an appropriate mode of information presentation are very important. When purchasing a familiar item online, pictures seem more efficient and effective than text, however with unfamiliar products items, that advantage diminishes (Chau, Au, & Tam, 2000). Based on prior research (Chang & Chen, 2009; Chau et al., 2000; Thakur & Summey, 2007), our study is composed of information and character of websites. Information is the overall content display on a website. It is always updated by adding the latest information and new products/services and consistently stimulates customers with a wider choice by tailoring to their needs. Character is the overall image that the visual content impresses and which creates a friendly atmosphere to users. It is composed of fonts, graphics, colors, background patterns, etc.

The most important determinant of e-trust is information presentation on the website (Thakur & Summey, 2007). Chau, et al (2000) emphasized that the key to acceptance and usage of a website is a user- friendly environment with a suitable taste of the information presented on its interface. According to Hoffman, Novak, and Peralta (1999), customers may not trust website providers due to their suspicious entity data. The impact of customer interface quality on trust is also shown in the study of Szymanski and Hise (2000). Besides, customer interface quality has also proved to be



influential on customer satisfaction. An online stores' front design actually improves store traffic and sales, and thus customer satisfaction (Lohse & Spiller, 1999). The more extensive and higher quality information that is available online may result in higher levels of e-satisfaction (Park & Kim, 2003; Peterson, Balasubramanian, & Bronnenberg, 1997; Szymanski & Hise, 2000). Eighmey and McCord (1998) concluded that considerations of design efficiency will lead to good satisfaction, thus attracting repeat visits. Montoya-Weis and Voss (2003) recognized that information content, navigation structure, and graphic style are three website design factors impacting customers' use of an online channel and their overall satisfaction. Therefore:

Hypothesis 5 (H5): Customer interface quality positively influences trust in online shopping.

Hypothesis 6 (H6): Customer interface quality positively influences customer satisfaction in online shopping.

Perceived security. Perceived security refers to customers' belief in the safety of transmitting sensitive information (Chang & Chen, 2009). Hoffman et al. (1999) proved that 69% of web users did not provide any data to any websites out of sensitive data concerns. One report points that 86% of commercial websites do not explain their purposes for using sensitive data (Landesberg, Toby, Caro line, & Lev, 1998). The loss of customers' trust in the protection of their privacy and the security of systems has proven to be a main reason for a slow-down in the growth of the Internet and e-commerce. The trustful relationship between customers and e-vendors is built only by ensuring a major alliance of information technology, financial control and audit functions (Keen, 2000). In line with the discussion above, Jin and Park (2006), Szymanski and Hise (2000) and Park and Kim (2003) proved that perceived security is a significant contributor to trust and satisfaction. Therefore:

Hypothesis 7 (H7): Perceived security positively influences trust in online shopping.

Hypothesis 8 (H8): Perceived security positively influences customer satisfaction in online shopping.

Perceived usefulness. Perceived usefulness is the belief of customers in enhancing online transaction performances (Chiu et al., 2009; Davis, 1989). Whenever customers have perceived usefulness, they tend to trust a given e-vendor (Babin & Babin, 2001; Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Mathieson, 1991; Pavlou & Fygenson, 2006; Taylor & Todd, 1995). Perceived usefulness is essential in shaping consumer attitudes and satisfaction with the e-commerce channel (Devaraj, Fan, & Kohli, 2002). The usage of Internet-based learning systems relies on the extended version of the technology acceptance model (TAM) and is perceived to be



useful in helping increase learners' satisfaction (Bhattacharjee & Premkumar, 2004; Saade & Bahli, 2004). Therefore:

Hypothesis 9 (H9): Perceived usefulness positively influences trust in online shopping.

Hypothesis 10 (H10): Perceived usefulness positively influences customer satisfaction in online shopping.

Trust. Based on the social exchange theory (Blau, 1964), some scholars theorized that trust will create the strong impacts on customer satisfaction (Chiou, 2003; Singh & Sirdeshmukh, 2000). Morgan and Hunt (1994) indicated the key role of trust in shaping customer satisfaction. Singh and Sirdeshmukh (2000) specified trust mechanisms in cooperating and competing with agency mechanisms to know the effect on satisfaction in individual encounters. They proved that trust will have a direct effect on post-purchase satisfaction. Chiou (2003) and Lin and Wang (2006) argued that accumulated trust will have an impact on overall satisfaction. In terms of e-commerce, Chiu et al. (2009) proved that trust is the strongest variable that has an impact on customer satisfaction in online shopping. Therefore:

Hypothesis 11 (H11): Trust positively influences customer satisfaction in online shopping.

METHOD

Data Collection

The data was collected in October 2011 in Vietnam via an online survey because of the advantages of cost and speed. This online data collection method was also consistent with the research subjects of the study, online buyers. We distributed the link through a survey website www.nothan.vn. The survey lasted two months. The participants were volunteers interested in such a research topic and had prior shopping experiences.

A total of 1,025 responses were received. 267 out of 1,025 responses were invalid, incomplete or gave the same rating to all items; the remaining 758 questionnaires were used for the analysis. The demographic profile of the questionnaires was summarized in Appendix A. It can be observed that most of the participants are young customers, even students who are usually early adopters.

Measurement

The questionnaire was designed to measure research constructs using multiple-items scales adapted from previous studies that reported high statistical reliability and validity. Each item was evaluated on the five-point Likert scale ranging from (1) Strongly disagree to (5) Strongly agree.



Distributive fairness and procedural fairness were measured using scales adapted from Folger and Konovsky (1989), Moorman (1991), and Maxham and Netemeyer (2002). Items for measuring customer interface quality were based on Srinivasan, Anderson, and Ponnnavolu (2002) and Thakur and Summey (2007). The items of perceived security were derived from Salisbury and Allison (2001). The questionnaire contained the standard TAM scales of perceived usefulness adopted from Davis (1989) and Gefen et al. (2003). Trust measures were based on Gefen et al. (2003) and Pavlou and Fygenson (2006) while the items to assess customer satisfaction were adapted from Anderson and Srinivasan (2003).

By using t-test or ANOVA, all items among the constructs were tested against demographic controls (gender, age, education, job, years of experience with the Internet, number of online shopping occurrences in the past six months, websites). All insignificant mean scores of the items showed that analyzing the data as a single group is valid.

RESULTS

Analysis of the Measurement Model

In accordance with a two-step methodology of Anderson and Gerbing (1988), a confirmatory factor analysis (CFA) was developed for measuring the model in order to establish unidimensionality, reliability, convergent validity and discriminant validity. Then structural equation modeling (SEM) was estimated to test the hypotheses. Two steps were carried out by the maximum likelihood method using AMOS software (version 20). In order to check the fit of the models, some indices needed to be satisfied above the recommended values: a chi-square with degrees of freedom (χ^2/df) was less than 3; goodness-of-fit index (GFI), comparable fit index (CFI); tucker lewis index (TLI), normed fit index (NFI) were greater than 0.9; adjusted goodness of fit index (AGFI) was greater than 0.8; root mean square error of approximation (RMSEA) was less than 0.08.

The good-of-fit indices satisfied the suggested value ($\chi^2/df = 2.759$; GFI = 0.94; CFI = 0.97; TLI = 0.967; NFI = 0.956; AGFI = 0.919; RMSEA = 0.048), therefore there was a reasonable overall fit between the model and observed data. The reliability assessment was based on the comparable fit index (CR). As shown in Table 2, all CR indices of constructs were over the recommended cut-off level of 0.7 (Fornell & Larcker, 1981). In terms of convergent validity, Table 2 suggests that all standardized regression weights are higher than 0.60 and the critical ratios are significant at $p = 0.001$. In addition, two criteria, CR and average variance extracted (AVE), were above the suggested levels, 0.7 and 0.5 respectively, by Fornell and Larcker (1981). Finally, discriminant validity was examined using the guideline in the research of Fornell and Larcker (1981).



Table 2. CFA Results for Measurement Model.

Factor	Measures	Regression weight	Critical ratio (t-value)	CR	AVE
Distributive fairness (DF)				0.85	0.65
DF1	I think what I got is fair compared with the price I paid	0.84	24.695*		
DF2	I think the value of the products that I received from the online store is proportional to the price I paid	0.83	-		
DF3	I think the products that I purchased at the online store are considered to be a good buy	0.75	21.781*		
Procedural fairness (PF)				0.92	0.79
PF1	I think the procedures used by the online store for handling problems occurring in the shopping process are fair	0.93	36.119*		
PF2	I think the policies of the online store are applied consistently across all affected customers	0.87	32.319*		
PF3	I think the online store would clarify decisions about any change in the Website and provide additional information when requested by customers	0.87	-		
Customer interface quality (CI)				0.86	0.67
CI1	The Website's design is attractive to me	0.77	23.141*		
CI2	The website keeps me well informed about the current information	0.84	25.34*		
CI3	The Website keeps me well informed about new products/services	0.84	-		
Perceived security (PS)				0.88	0.72
PS1	The Website is a safe site for sensitive information transfers	0.81	25.272*		
PS2	I would feel totally safe providing sensitive information about myself to the Website	0.90	27.985*		
PS3	Overall, the Website is a safe place to transmit sensitive information	0.84	-		
Perceived usefulness (PU)				0.90	0.70
PU1	The Website enables me to search and buy goods faster	0.86	29.016*		
PU2	The Website enhances my effectiveness to search and buy goods	0.85	30.585*		
PU3	The Website makes it easier to search for goods and purchase them	0.87	25.271*		
PU4	The Website increases my productivity in searching and purchasing goods	0.77	-		
Trust (TR)				0.89	0.72
TR1	Based on my experience with the online store in the past, I know it is honest	0.84	-		
TR2	Based on my experience with the online store in the past, I know it keeps its promises to its customers	0.85	28.216*		
TR3	Based on my experience with the online store in the past, I know it is trustworthy	0.86	28.476*		



Customer satisfaction (CS)		0.89	0.73
CS1	I am satisfied with my decision to purchase from the Website	0.89	27.701*
CS2	I think I did the right thing by buying from the Website	0.88	27.116*
CS3	If I had to purchase again, I would feel differently about buying from the Website	0.79	-

Overall goodness-of-fit indices

$\chi^2 = 518.658$ ($p = 0.000$); $df = 188$; $\chi^2/df = 2.759$

GFI = 0.94; CFI = 0.97; TLI = 0.967; NFI = 0.956; AGFI = 0.919; RMSEA = 0.048

Note: χ^2 , chi-square; df , degrees of freedom; CR, composite reliability; AVE, average variance extracted; GFI, goodness-of-fit index; CFI, comparable fit index; TLI, tucker lewis index; NFI, normed fit index; AGFI, adjusted goodness of fit index; RMSEA, root mean square error of approximation; * $p < 0.001$

Source: author

In Table 3, the correlations among constructs were listed with the AVE on the diagonal (in bold). All diagonal elements were larger than inter-construct correlations; hence discriminant validity was proved.

Table 3. Correlation of Latent Variables

Construct	Construct						
	CI	PS	CS	TR	PU	PF	DF
CI	0.82						
PS	0.34	0.85					
CS	0.67	0.52	0.86				
TR	0.68	0.53	0.80	0.85			
PU	0.51	0.35	0.67	0.60	0.84		
PF	0.57	0.44	0.70	0.73	0.61	0.89	
DF	0.50	0.36	0.67	0.67	0.52	0.64	0.81

Note: Diagonal elements (in bold) are the square root of the average variance extracted (AVE). Off-diagonal elements are the correlations among constructs; CI, customer interface quality; PS, perceived security; CS, customer satisfaction; TR, trust; PU, perceived usefulness; PF, procedural fairness; DF, distributive fairness.

Source: author

Analysis of the SEM

Figure 2 and Table 4 shows the result of the SEM. Referred to the corresponding recommended values all fit indices achieved a good model fit ($\chi^2 = 479.036$ ($p = 0.000$); $df = 168$; $\chi^2/df = 2.851$; GFI = 0.942; CFI = 0.973; TLI = 0.967; NFI = 0.96; AGFI = 0.92; RMSEA = 0.049). The explanatory power of the research model was shown in Figure 2 in which the model accounts for 71 and 72% of variance (R^2 score).



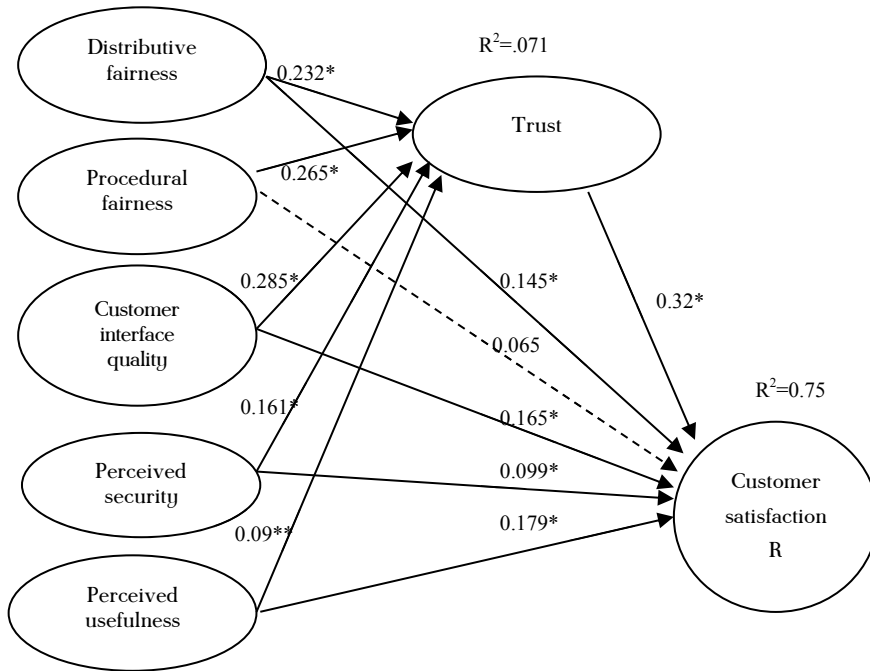


Figure 2. SEM Analysis of the Search Model

Note: * $p < 0.001$, ** $p < 0.01$; R, square multiple correlations; the solid lines means reaching the significance at p-value of 0.01, the dashed line means an insignificant path level of p-value of 0.01

Source: own elaboration

Ten out of eleven paths were significant. Among them, nine exhibited a p-value of 0.001. H1, H2 were supported by the significant coefficient paths from distributive fairness to trust and customer satisfaction of 0.232 and 0.145. Procedural fairness was associated with trust and with an insignificant coefficient path with customer satisfaction, therefore H3 was supported but H4 was not supported. H5, H6, H7, H8 proposed that customer interface quality and perceived security would positively impact on trust and customer satisfaction, and the results were strongly supported ($\gamma_{31} = 0.285$; $\beta_{32} = 0.165$; $\gamma_{41} = 0.161$; $\beta_{42} = 0.099$). H9 and H10 posited that perceived usefulness would have a positive effect on trust and customer satisfaction, the results were significant, and therefore H9 and H10 were supported. H11 was supported because trust had a positive influence on customer satisfaction ($\lambda_{62} = 0.32$).

Table 4. The result of the SEM

Hypothesized relationship	Parameter	Estimate	Critical ratio (t-value)	Conclusion
H1 Distributive fairness →Trust	γ_{11}	0.232	5.78*	Supported
H2 Distributive fairness →Customer satisfaction	β_{12}	0.145	3.85*	Supported
H3 Procedural fairness →Trust	γ_{21}	0.265	6.39*	Supported
H4 Procedural fairness →Customer satisfaction	β_{22}	0.065	1.68	Not supported
H5 Customer interface quality →Trust	γ_{31}	0.285	7.88*	Supported
H6 Customer interface quality →Customer satisfaction	β_{32}	0.165	4.68*	Supported
H7 Perceived security →Trust	γ_{41}	0.161	6.30*	Supported
H8 Perceived security →Customer satisfaction	β_{42}	0.099	4.11*	Supported
H9 Perceived usefulness →Trust	γ_{51}	0.091	2.94**	Supported
H10 Perceived usefulness →Customer satisfaction	β_{52}	0.179	6.34*	Supported
H11 Trust →Customer satisfaction	λ_{62}	0.320	6.20*	Supported

Overall goodness-of-fit indices

$\chi^2 = 479.036$ ($p = 0.000$); $df = 168$; $\chi^2/df = 2.851$

GFI = 0.942; CFI = 0.973; TLI = 0.967; NFI = 0.96; AGFI = 0.92; RMSEA = 0.049

Note: χ^2 , chi-square; df , degrees of freedom; GFI, goodness-of-fit index; CFI, comparable fit index; TLI, tucker lewis index; NFI, normed fit index; AGFI, adjusted goodness of fit index; RMSEA, root mean square error of approximation; * $p < 0.001$, ** $p < 0.01$

Source: author

Table 5. Direct and indirect influences on customer satisfaction

Construct	Direct	Indirect	Total
Distributive fairness	0.145	0.074	0.219
Procedural fairness	-	0.085	0.085
Customer interface quality	0.165	0.091	0.256
Perceived security	0.099	0.052	0.151
Perceived usefulness	0.179	0.029	0.208
Trust	0.320	-	0.320

Source: author

DISCUSSION AND CONCLUSIONS

In general, our study supports the theoretical model and the hypotheses among constructs. There are several findings.

First, among the expected determinants of trust, distributive fairness and procedural fairness are positive predictors. The results have the consensus with the antecedents (Kumar et al., 1995; Tyler & Lind, 1992). Customer interface quality, perceived security and perceived usefulness are also significant predictors of trust. It is appropriate to suggest that receiving authentic and updated information, insurance of safety as well as enhancing the belief that using a given website can improve transaction performance which will trigger positive trust responses from customers. Besides, the R^2 value of predicting trust is 71%. It means that distributive fairness, procedural fairness, customer interface quality, perceived security



and perceived usefulness all together are important in building trust; moreover, it is the background for e-satisfaction.

Second, the expected determinants of customer satisfaction, distributive fairness, customer interface quality, perceived security and perceived usefulness as well as trust proved to be positive predictors. Since customers feel the outcomes are proportional with inputs, good environments, safety, perception of usefulness, they feel satisfied and willing to repeat their actions. Additionally, the fact that 75% of variance in satisfaction is explained by those six factors shows the importance of creating the individual's perception of distributive fairness, customer interface quality, perceived usefulness and trust to enhance customer satisfaction. On the other hand, inconsistent with Folger and Greenberg (1985), the study had an insignificant result regarding the relationship between procedural fairness and customer satisfaction. It may be due to unperfected implementation in procedure-problem-solving systems. It is possible that in procedure-problem-solving systems, procedural fairness is not carried out in every transaction but customers still feel satisfied to some extent, or vice versa, although procedural fairness is executed, customers feel uncomfortable and less satisfied. For example, due to some reasons the products were delivered late, despite receiving products late without any excuses from the e-companies, customers still remain satisfied because they finally received their products within the expected time; or vice versa despite many excuses from e-companies by telephone calls or in emails, customers still felt angry because they had to wait. Thus it leads to insignificant coefficients with customer satisfaction for the overall sample. It is clear that trust involves all processes beginning with customers' previous experience until service after shopping, whereas customer satisfaction is the contentment of customers after shopping in a given virtual store as stipulated by our definition above. That is the difference between trust and customer satisfaction, which presents in procedural fairness having a significant co-efficient with trust but an insignificant one with customer satisfaction.

Third, on the other side, while we propose the above 11 hypotheses, we also make sure of the mediator role of trust between affecting factors (distributive fairness, procedural fairness, customer interface quality, perceived security, and perceived usefulness) and the targeted factor (customer satisfaction). Several previous studies suggest an invisible relationship in which trust appears as a mediator between five determinants and customer satisfaction when those affecting factors have positive influences on both trust and customer satisfaction and then trust have the positive influence to customer satisfaction (Chiu et al., 2009; Huang, Chiu, & Kuo, 2006; Maxham & Netemeyer, 2002). It is understandable that customers trust a website, because it enjoys a good reputation by providing fairness, security, usefulness and interface quality.



Based on Mackinnon and Warsi (1995) and Hair, Black, Babin, and Anderson (2010) that showed the method of identifying this mediation more specifically, we will review all the results from H1 to H11. Firstly, we investigated the relationship between the independent variables (distributive fairness, procedural fairness, customer interface quality, perceived security, and perceived usefulness) and the mediator (trust). Secondly, a relationship between the mediator and the dependent variable (customer satisfaction) was investigated. Thirdly, we estimated the relationship between the independent variables (distributive fairness, procedural fairness, customer interface quality, perceived security, and perceived usefulness) and the dependent variable (customer satisfaction). We can recognize that trust partially mediated for positive impacts of distributive fairness, customer interface quality, perceived security, perceived usefulness to customer satisfaction and fully mediated for procedural fairness. Table 5 can be summarized indirectly through trust, and directly by the total effects of independents on customer satisfaction. The greatest total influences derived from trust, showed the same results with the study of Chiu et al. (2009). The second rank in the total effects belonged to customer interface quality while procedural fairness ranked the lowest. It is not exaggerated to say that trust is a guarded signal and the most dominant predictor of customer satisfaction ($\lambda_{62}=0.32$). If sellers can apply all good factors to enhance trust, the probability of having a significantly positive influence on customer satisfaction is high, especially customer interface quality followed by distributive fairness.

Limitation and Future Research

Despite contributing to the literature and finding out some interesting points, the current study also has some limitations that opens avenues for future researches.

First, certain aspects of sample collection could be improved. It was recognized that the majority of respondents were students. It was reasonable since online customers are young and higher-educated but it would have been better if the sample had been collected from non-students who are busy and have no time for conventional shopping methods. In addition, female respondents outnumbered male ones. Besides, the questionnaire was designed to force the respondents to answer all the questions. Respondents may prefer giving no answer than providing a wrong one. The online survey could have included some points in which the respondents can choose not to answer. Another point was that although we took care to translate the questionnaire into Vietnamese, it still could have influenced the results of factor structures.

Second, customer interface quality is a multi-faceted concept, but we could not include its every component, and just focused on information



and character that were most related to the online context. The results yielded could differ should different components be applied.

Third, regarding post-consumption intention, we just stopped at trust and customer satisfaction. It would be more comprehensive if the study addressed loyalty and word-of-mouth, as they too are major drivers of success in e-commerce (Aderson & Mittal, 2000; Reichheld, Markey & Hopton, 2000).

Final Remarks

Trust and customer satisfaction are very important to e-companies in post-consumption intention. Our study empirically examined the significant influence of distributive fairness, procedural fairness, customer interface quality, perceived security and perceived usefulness on trust as well as on customer satisfaction. The mediator role of trust was also successfully proved. Practitioners can consider our study as a reference to establish trust and satisfaction in e-commerce, in order to raise post-consumption intention more attention needs be paid to distributive fairness, procedural fairness, customer interface quality, perceived security, perceived usefulness need, and last not least, trust.

REFERENCES

- Adams, J.S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology, 67*(5), 422-436.
- Adams, J.S. (1965). Inequity in social change. In: L. Berkowitz (ed.), *Advances in experimental social psychology* (pp. 267-299). New York: Academic Press.
- Aderson, E.W., & Mittal, V. (2000). Strengthening the satisfaction-profit chain. *Journal of Service Research, 3*, 107-120.
- Anderson, C., & Gerbing, W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychology Bulletin, 103*(3), 411-423.
- Anderson, R.E., & Srinivasan, S.S. (2003). E-satisfaction and e-loyalty: a contingency framework. *Psychology & Marketing, 20*(2), 123-138.
- Aryee, S., Budhwar, P.S., & Chen, Z.X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: test of a social exchange model. *Journal of Organizational Behavior, 23*, 267-285.
- Ba, S., & Pavlou, P.A. (2002). Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behavior. *MIS Quarterly, 26*(3), 243-268.
- Babin, B.J., & Babin, L. (2001). Seeking something different? A model of schema typicality, consumer affect, purchase intentions and perceived shopping value. *Journal of Business Research, 54*, 89-96.
- Bauer, H.H., Falk, T., & Hammerschmidt, M. (2006). eTransQual: A transaction process-based approach for capturing service quality in online shopping. *Journal of Business Research, 59*, 866-875.
- Bhattacharjee, A., & Premkumar, G. (2004). Understanding changes in belief and attitude toward information technology usage: A theoretical model and longitudinal test. *MIS Quarterly, 28*(2), 229-254.
- Blau, P.M. (1964). *Exchange and power in social life*. New York: John Wiley & Sons.
- Blodgett, J.G., Hill, D.J., & Tax, S.S. (1997). The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *Journal of Retailing, 73*(2), 185-210.



- Bolton, R.N. (1998). A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction. *Marketing science*, 17(1), 45-65.
- Brockner, J., & Siegel, P. (Eds.). (1995). *Understanding the interaction between procedural and distributive justice: The role of trust*. In R.M. Kramer & T.R. Tyler (Eds.), *Trust in organizations: Frontiers of theory and research* (pp. 391-413). Thousand Oaks, CA: Sage.
- Chang, H.H., & Chen, S.W. (2009). Consumer perception of interface quality, security, and loyalty in electronic commerce. *Information & Management*, 46, 411-417.
- Chau, P.Y.K., Au, G., & Tam, K.Y. (2000). Impact of information presentation modes on online shopping: An empirical evaluation of a broadband interactive shopping service. *Journal of Organizational Computing and Electric Commerce*, 10(1), 1-22.
- Chiou, J.S. (2003). The antecedents of consumers' loyalty toward Internet Service Providers. *Information & Management*, 41, 685-695.
- Chiu, C.M., Lin, H.Y., Sun, S.Y., & Hsu, M.H. (2009). Understanding customers' loyalty intentions towards online shopping: an integration of technology acceptance model and fairness theory. *Behaviour & Information Technology*, 28(4), 347-360.
- Churchill, G., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, 19, 491-504.
- Cohen-Charash, Y., & Spector, P.E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 86(2), 278-321.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13, 319-340.
- Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1002.
- del Río-Lanza, A.B., Vázquez-Casielles, R., & Díaz-Martín, A. (2009). Satisfaction with service recovery: Perceived justice and emotional responses. *Journal of Business Research*, 62, 775-781.
- Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: Validating e-commerce metrics. *Information systems research*, 13(3), 316-333.
- Doney, P.M., & Cannon, J.P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61, 35-51.
- Doney, P.M., Cannon, J.P., & Mullen, M.R. (1998). Understanding the influence of national culture on the development of trust. *Academy of Management Review*, 23(3), 601-620.
- Eighmey, J., & McCord, L. (1998). Adding value in the information age: Uses and gratifications of sites on the world wide web. *Journal of Business Research*, 41, 187-194.
- Evanschitzky, H., Iyer, G.R., Hesse, J., & Ahlert, D. (2004). E-satisfaction: a re-examination. *Journal of Retailing*, 80, 239-247.
- Folger, R., & Greenberg, J. (1985). Procedural justice: an interpretative analysis of personal systems. In: Krowland and F. Ferris (Eds.), *Research in personal and human resources management*. Greenwich: CT: Jai Press.
- Folger, R., & Konovsky, M.A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal*, 32, 115-130.
- Fornell, C., & Larcker, F.D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58, 1-19.
- Gefen, D. (2000). E-commerce: the role of familiarity and trust. *The International Journal of Management Science*, 28, 725-737.
- Gefen, D., Karahanna, E., & Straub, D.W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, 27, 51-90.
- Giffin, K. (1967). The contribution of studies of source credibility to a theory of interpersonal trust in the communication process. *Psychological Bulletin*, 68(2), 104-120.
- Goodwin, C., & Ross, I. (1989). Salient dimensions of perceived fairness in resolution of service complaints. *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2, 87-92.
- Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis (7th)*. Pearson Education.

- Hoffman, D.L., Novak, T.P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80-85.
- Homburg, C., & Frst, A. (2005). How organizational complaint handling drives customer loyalty: An analysis of the mechanistic and the organic approach. *Journal of Marketing*, 69, 95-114.
- Hosmer, L.T. (1995). Trust: the connecting link between organizational theory and philosophical ethics. *Academy of Management Review*, 20(2), 379-403.
- Howard, J.A., & Seth, J.N. (1969). *The theory of buyer behaviour*. New York: John Wiley & Sons.
- Huang, H.H., Chiu, C.K., & Kuo, C. (2006). Exploring customer satisfaction, trust and destination loyalty in tourism. *The Journal of American Academy of Business, Cambridge*, 10(1), 156-159.
- Hui, M.K., & Bateson, J.E. (1991). Perceived control and consumer choice on the service experience. *Journal of Consumer Research*, 18, 174-185.
- Huppertz, J.W., Arenson, S.J., & Evans, R.H. (1978). An application of equity theory to buyer-seller exchange situations. *Journal of Marketing Research*, 14, 250-260.
- Iglesias, M.P., & Guillén, M.J.Y. (2004). Perceived quality and price: Their impact on the satisfaction of restaurant customers. *International Journal of Contemporary Hospitality Management*, 16(6), 373-379.
- Jarvenpaa, S.L., Knoll, K., & Leidner, D.E. (1998). Is anybody out there? Antecedents of trust in global virtual teams. *Journal of Management Information Systems*, 14(4), 29-64.
- Jarvenpaa, S.L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer Mediated Communications*, 3(2), 1-35.
- Jin, B., & Park, J.Y. (2006). The moderating effect of online purchase experience on the evaluation of online store attributes and the subsequent impact on market response outcomes. *Advances in Consumer Research*, 33, 203-211.
- Keen, P.G.W. (2000). Ensuring e-trust. *Computerworld*, 34(11), 46.
- Kumar, N., Scheer, L.K., & Steenkamp, J.E.M. (1995). The effects of supplier fairness on vulnerable resellers. *Journal of Marketing Research*, 32, 54-65.
- Landesberg, M.K., Tobj, M.L., Caroline, G.C., & Lev, O. (1998). Privacy online: A report to congress. *Federal Trade Commission*, www.ftc.gov.
- Leventhal, G.S. (1980). What should be done with equity theory? New approaches to the study of fairness in social relationships. In: K. Gergen, M. Greenberg and R. Willis (Eds.), *Social exchanges: Advances in theory and research* (pp. 133-173). New York, NY: Academic Press.
- Lin, H.H., & Wang, Y.S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & Management*, 43, 271-282.
- Lind, E.A., & Tyler, T.R. (1988). *The social psychology of procedural justice*. New York: Plenum.
- Lohse, G.L., & Spiller, P. (1999). Internet retail store design: How the user interface influences traffic and sales. *Journal of Computer Mediated Communications*, 3(2), <http://www.ascusc.org/jcmc/vol5/issue2/lohse.htm>.
- Mackinnon, D.P., & Warsi, G. (1995). A simulation study of mediated effect measures. *Multivariate Behavioral Research*, 30(1), 41-62.
- Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, 2(3), 173-191.
- Maxham, J.G., & Netemeyer, R.G. (2002). Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *Journal of Retailing*, 78, 239-252.
- Maxham, J.G., & Netemeyer, R.G. (2003). Firms reap what they sow: The effects of shared values and perceived organizational justice on customers' evaluations of complaint handling. *Journal of Marketing*, 67, 46-62.
- McKnight, D.H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce. *Information Systems Research*, 13(3), 334-359.
- McKnight, D.H., Cummings, L.L., & Chervany, N.L. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review*, 23(3), 473-490.



- Montoya-Weis, M.M., & Voss, G.B. (2003). Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. *Journal of the Academy of Marketing Science*, 31(4), 448-458
- Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships between providers and users of market research: the dynamics of trust within and between organizations. *Journal of Marketing Research*, 19, 314-328.
- Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behaviors: do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76, 845-855.
- Morgan, R.M., & Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20-38.
- Negash, S., Rjan, T., & Igbaria, M. (2003). Quality and effectiveness in Web-based customer support systems. *Information & Management*, 40, 757-768.
- Oliver, R.L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York: McGraw-Hill.
- Oliver, R.L., & Desarbo, W.S. (1988). Response determinants in satisfaction judgments. *Journal of Consumer Research*, 14, 495-507.
- Oliver, R.L., & Swan, J.E. (1989). Consumer perceptions of interpersonal equity and satisfaction in transactions: A field survey approach. *Journal of Marketing* 53, 21-35.
- Parasuraman, A., Zeithaml, V.A., & Malhotra, A. (2005). E-S-QUAL: a multiple item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213-233.
- Park, C.H., & Kim, Y.G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail & Distribution Management*, 31(1), 16-29.
- Pavlou, P.A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly*, 30(1), 115-143.
- Pearce, J.L., Bigley, G.A., & Branjiczi, I. (1998). Procedural justice as modernism: Placing industrial organisational psychology in context. *Applied Psychology: An International Review*, 47(3), 371-396.
- Peterson, R.A., Balasubramanian, S., & Bronnenberg, B.J. (1997). Exploring the implications of the Internet for consumer marketing. *Journal of the Academy of Marketing Science*, 25(4), 329-346.
- Pilai, R., Williams, E. S., & Tan, J. J. (2001). Are the scales tipped in favor of procedural or distributive justice? An investigation of the U.S., India, Germany, and Hong Kong (China). *The International Journal of Conflict Management*, 12(4), 312-332.
- Reichheld, F.F., Markey, R.G., & Hopton, C. (2000). E-customer loyalty-applying the traditional rules of business for online success. *European Business Journal*, 12, 173-179.
- Reichheld, F.F., & Schefer, P. (2000). E-loyalty: Your secret weapon on the Web. *Harvard Business Review*, 78(4), 105-113.
- Rempel, J.K., Holmes, J.G., & Zanna, M.P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49(1), 95-112.
- Saade, R., & Bahli, B. (2004). The impact of cognitive absorption on perceived usefulness and perceived ease of use in online learning: an extension of the technology acceptance model. *Information & Management*, 42, 317-327.
- Salisbury, W.D., & Allison, W.P. (2001). Perceived security and World Wide Web purchase intention. *Industrial Management & Data Systems*, 101(3/4), 165-176.
- Schoorman, F.D., Mayer, R.C., & Davis, J.H. (2007). An integrative model of organizational trust: past, present, and future. *Academy of Management Review*, 32(2), 344-354.
- Seiders, K., & Berry, L.L. (1998). Service fairness: What it is and why it matters. *Academy of Management Executive*, 12(2), 8-20.
- Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgments. *Journal of the Academy of Marketing Science*, 28(1), 150-167.
- Sinha, I., & Batra, R. (1999). The effect of consumer price consciousness on private label purchase. *International Journal of Research in Marketing*, 16(3), 237-251.
- Smith, A.K., Bolton, R.N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, 34, 356-372.

- Srinivasan, S.S., Anderson, R., & Ponnayolu, K. (2002). Customer loyalty in e-commerce: an exploration of its antecedents and consequences. *Journal of Retailing*, 78, 41-50.
- Szymanski, D.M., & Hise, R.T. (2000). e-Satisfaction: An initial examination. *Journal of Retailing*, 76(3), 309-322.
- Tax, S.S., Brown, S.W., & Chandrashekar, M. (1998). Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing*, 62, 60-76.
- Taylor, S., & Todd, P. (1995). Assessing IT usage: The role of prior experience. *MIS Quarterly*, 19(4), 561-570.
- Taylor, S., & Todd, P.A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2), 144-176.
- Teo, T.S.H., & Lim, V.K.G. (2001). The effects of perceived justice on satisfaction and behavioral intentions: the case of computer purchase. *International Journal of Retail & Distribution Management*, 29(2), 109-124.
- Thakur, R., & Summey, J.H. (2007). e-Trust: Empirical insights into influential antecedents. *The Marketing Management Journal*, 17(2), 67-80.
- Tse, D.K., & Wilton, P.C. (1988). Models of consumer satisfaction formation: An extension. *Journal of Marketing Research*, 25, 204-212.
- Tyler, T.R., & Lind, E.A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115-191.
- Vaidyanathan, R., & Aggarwal, P. (2003). Who is the fairest of them all? An attributional approach to price fairness perceptions. *Journal of Business Research*, 56(6), 453-463.
- Westbrook, R. (1981). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 2(2), 139-153.

APPENDIX A DEMOGRAPHIC PROFILE (N = 758)

Characteristics	Frequency	%
<i>Gender</i>		
Male	222	29.3
Female	536	70.7
<i>Age</i>		
< 20	245	32.3
20-25	423	55.8
> 25	90	11.9
<i>Education background</i>		
Junior high school	1	0.1
High school	16	2.1
Vocational school	17	2.2
Technical college	39	5.1
University	676	89.3
Master or higher	9	1.2
<i>Job</i>		
Student		
Full-time student	380	50.1
Non-full-time student*	197	26.0
Employment		
Unemployed	171	22.5
Housewife	6	0.8
Retired	2	0.3
<i>Years of experience with the Internet</i>		
1 year	64	8.4
2-5 years	474	62.5



5-10 years	217	28.6
10 years+	3	0.5
<i>Number of visits over last six months</i>		
< 1 time	81	10.7
1 time	417	55.0
2 times	148	19.5
3-5 times	85	11.2
6-10times	19	2.5
10 times +	8	1.1
<i>The website in which the replier use online shopping experience for the questionnaire (see Appendix 1 for the ranking of these websites)</i>		
www.enbac.com	121	16
www.vatgia.com	86	11.3
www.muachung.vn	48	6.3
www.chodientu.vn	42	5.5
www.muaban.net	34	4.5
www.muare.vn	23	3
www.cungmua.com	39	5.1
www.nhommua.com	14	1.8
www.rongbay.com	108	14.2
www.hotdeal.vn	243	32.1

*Despite working with permanent full-time jobs, they are enrolling on some course to have higher degrees

Source: own elaboration.

APPENDIX B THE SUMMARY OF RESULTS OF CONTENT ANALYSIS

	Website	Traffic rank in Vietnam	Alexa traffic rank	Traffic rank in B2C in Vietnam
1	www.enbac.com	60	11,407	9
2	www.vatgia.com	15	2,747	1
3	www.muachung.vn	46	11,277	4
4	www.chodientu.vn	76	15,466	10
5	www.muaban.net	93	22,082	12
6	www.muare.vn	47	10,201	5
7	www.cungmua	84	22,125	11
8	www.nhommua.com	41	10,607	3
9	www.rongbay	49	11,506	6
10	www.hotdeal.vn	54	12,749	8

Source: www.alex.com in March 13, 2012



DETERMINANTY SATYSFAKCJI KLIENTA W INTERNECIE NA RYNKACH WSCHODZĄCYCH – MEDIACYJNA ROLA ZAUFANIA

Abstrakt

Tło badań. Satysfakcja klienta, w wielu przypadkach zależna od zaufania, jest kluczowa dla pokonsumpcyjnych zachowań kupujących i jest ogólnie postrzegana jako kluczowy czynnik sukcesu w sprzedaży, w szczególności w sprzedaży internetowej. Jednak nieliczne badania wyraźnie określają determinanty satysfakcji klientów (w szczególności siłę wpływu poszczególnych czynników), w handlu elektronicznym na wschodzących rynkach.

Cele badań. Celem przeprowadzonych badań jest identyfikacja czynników determinujących satysfakcję klienta.

Metodyka. Przeprowadzone badania oparte są na analizie danych uzyskanych od 758 klientów sklepów internetowych w Wietnamie.

Kluczowe wnioski. Uzyskane rezultaty badań pokazują, że sprawiedliwość dystrybucyjna, jakość interfejsu klienta, poczucie bezpieczeństwa, postrzegana użyteczność oraz zaufanie są istotnymi predyktorami satysfakcji klienta. W szczególności wykazana została mediacyjna rola zaufania.

Słowa kluczowe: satysfakcja młodego klienta w Internecie, zaufanie, handel elektroniczny, mediacyjna rola

