ANALYZING COMPLAINT INTENTIONS IN ONLINE SHOPPING

The Perspective of Justice, Technology and Trust

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Abstract: Customers' complaint behaviors are the key to repurchase intention in online shopping. An understanding of the behaviors can provide insight to failed service experience and in turn, effectively redress their problems. Therefore, it is important to examine the underlying drivers of complaint intentions in online shopping. Online shopping is operated in a web-based virtual store. Online shoppers are both the buyers of products and users of web-sites. Moreover, trust belief on e-vendors determines the psychological state of individual shopping behaviors. Three major concerns particularly arise in this context, individual behavior, technology use, and trust. This study thus proposed a novel research model in an integration of justice, technology use, and trust issues to examine customer satisfaction and complaint behaviors. Data were collected from an online survey with online-shopping experience. The empirical results indicated that distributive justice and interactional justice contribute significantly to customer satisfaction and complaint intentions as procedural justice does not. Technology-based features and trust belief are both important in determining the two target variables. Implications for managers and scholars are further discussed.

1 INTRODUCTION

Online shopping was expected to be grown in a 8-10% annual rate in the near future. However, recent report has indicated a rapid increase in service failure for online consumers. This causes a difficulty to maintain customer satisfaction and in turn, a decrease of sale revenue in a long-term basis. Consumer's post-purchase behaviors are the key to a firm's survival in a highly competitive e-marketplace (Kim and Son, 2009). Research on post-purchase behaviors has focused on customer satisfaction and repurchase intention (Gefen et al., 2003). However, complaint behaviors have often occurred to most buyers due to dissatisfaction of online services (Voorhees and Brady, 2005). Complaint behaviors certainly play an important role in consumers' decision making of their repurchase (Breazeale, 2009). The possible reasons why consumers complain to online shopping are not fully discussed in terms of their dissatisfaction

Online consumers are both the shoppers of products and users of web-based systems in the shopping process (Shankar et al., 2003). Moreover, trust beliefs on e-vendors are also important in determining the psychological state of individual

shopping behaviors (Palvia, 2009). Accordingly, three major concerns particularly arise in the complaint behaviors, individual behavior, technology use, and trust belief. In the individual behavior, many studies have claimed the importance of justice issue in linking to customer satisfaction and complaint intentions (Martinez-Tur et al., 2006). However, the literature has been a lack of considering its influence on complaint intentions in online shopping.

In the technology use, expectation confirmation model (ECM) of IS continuance indicated the links between technology-based features such as perceived usefulness and customer satisfaction and continuance intention to use (Bhattacherjee, 2001). In the trust belief, several studies have argued trust as important determinant for the consumer's willingness to transact with e-vendors and further, have identified the direct link between trust and customer satisfaction in e-commerce context (Wu and Chen, 2005; Kim et al., 2009). Grounding on justice perception, ECM-based features, and trust belief, this study proposed a novel research framework to understand the major drivers of complaint intentions in online shopping. Empirical data is further used to examine this framework.

2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Based on the above discussion, Figure 1 provides a pictorial depiction of this research framework. The followings discuss the theoretical bases and development of relevant hypotheses.
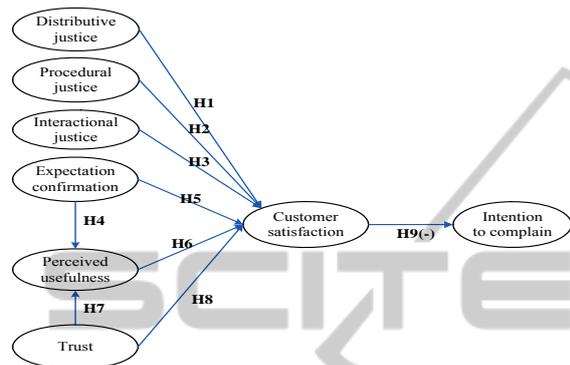

Figure 1: Research model.

2.1 Justice Theory

The literature has defined three major justice constructs: distributive, procedural and interactional (Colquitt et al., 2001). Distributive justice refers to the perceived fairness where individuals assess the fairness of an exchange by comparing their inputs to outcomes to form an equity score. Procedural justice refers to the perceived fairness of policies, procedures and criteria used by decision makers in reaching the outcome of a dispute or negotiation (Alexander and Ruderman, 1987). Interactional justice refers to the perceived fairness of interpersonal treatment that individuals receive in the decision making process. Accordingly, interactional justice is in a position to reflect the perceived fairness of a communication between system interface and consumers.

Justice perception can be used not only in exploring service recovery process such as post-complaint behaviors, but also in understanding entire failed service experience in consumer purchase context (Turel et al., 2008; Sangareddy et al., 2009). Online shopping process can be considered as an exchange of time, effort, and money for receiving products or services. The consideration of justice should be the major concern of online shoppers in the post-purchase process. Therefore, this paper used justice theory to investigate consumer's complaint intentions in the online shopping context. The following discusses the development of relevant hypotheses.

Martinez-Tur et al. (2006) argued that justice components, distributive, procdural, and interactional justice, are all improtant predictors of customer satisfaction in the study of hotel and restaurant industries while distributive justice is more influential than procedural and interactional justice. Maxham and Netemeyer (2002) indicated the support of an influence of three justice components on customer satisfaction in the study of service industries. They further found that procedural and interactional justices are more influential in forming satisfaction than distributive justice. Other studies also concluded the importance of the three components in impacting customer satisfaction in service industries (Tax et al., 1998; Voorhees and Brady, 2005). We propose following the hypotheses.

H1. Distributive justice has a positive effect on consumer satisfaction in online shopping.

H2. Procedural justice has a positive effect on consumer satisfaction in online shopping.

H3. Interactional justice has a positive effect on consumer satisfaction in online shopping.

2.2 Expectation Confirmation Model

Bhattacherjee (2001) proposed expectation confirmation model (ECM) of IS continuance by integrating expectation confirmation theory (ECT) (Oliver, 1980) and TAM-based studies, such as perceived usefulness (Davis et al., 1989), to explore user satisfaction and continuance intention to use. ECT was originally proposed by Oliver (1980) for consumer behavior research to examine consumer satisfaction and post-purchase behaviors. Furthermore, a post-expectation of IS use is added to ECM when ECT only examines the effect of pre-expectation in the purchase decision. ECM has been widely extended to include two other post-adoption behaviors, complaint and recommendation intentions, in e-commerce (Yen and Lu, 2008; Finn et al., 2009). In this study, we only considered complaint intentions in its extension. The complaint behaviors in this context may be predicted partially by ECM in a technology use perspective.

The following discusses the development of relevant hypotheses. According to TAM, perceived ease of use is positively related to perceived usefulness (Davis et al., 1989). Previous studies indicated that perceived ease of use and confirmation are similar because they are cognitive constructs stemming from a consumer's post-

consumption expectation after the initial use of online shopping (Bhattacherjee, 2001). Moreover, many studies also argued that confirmation has a positive impact on perceived usefulness in online environment (Chea and Luo, 2008). We propose the hypothesis.

H4. Confirmation has a positive effect on perceived usefulness in online shopping.

According to ECT, confirmation is determined by the combination of pre-expectation and perceived outcome (Oliver, 1980). Positive confirmation arises when the perceived outcome of customers exceeds their pre-expectation. Positive confirmation indicates a positive effect on customer satisfaction. Previous studies on ECM in online environment also showed empirical evidence in terms of the effect of disconfirmation on customer satisfaction (Chea and Luo, 2008; Finn et al., 2009). We propose the hypothesis.

H5. Confirmation has a positive effect on consumer satisfaction in online shopping.

Consumers are more likely to form favorable feelings of satisfaction when the online shopping website is perceived to be useful (Bhattacherjee, 2001). Perceived usefulness as drawn from TAM is considered to be post-expectation in IS use (Thong et al., 2006). According to ECT, post-consumption expectation is a predictor to consumer satisfaction (Bhattacherjee, 2001; Chea and Luo, 2008). Furthermore, prior studies also showed that perceived usefulness is an important antecedent of consumer satisfaction (Chea and Luo, 2008; Chiu et al., 2009). We propose the hypothesis.

H6. Perceived usefulness has a positive effect on customer satisfaction in online shopping.

2.3 Trust

E-commerce is a less verifiable and controllable environment in which online services or transactions are offered without physical face-to-face contact and simultaneous exchange of services and money. Thus, without reducing social complexity and risk resulting from the undesirable opportunistic behaviors of e-vendors, only short-term transactions would be possible between buyers and e-vendors (Pavlou and Gefen, 2004). This would create a potential impact of their transactions on buyers' dissatisfaction due to a lack of trust on e-vendors to nurture long-term customer relationships (Pavlou, 2003; Palvia, 2009). Trust plays an important role in determining online shopping. The following discusses the development of hypotheses.

Trust is one of the determinants of perceived usefulness, especially in an online environment, because part of the guarantee that consumers will sense the expected usefulness from the web site is based on the sellers behind the web site (Gefen et al., 2003). Moreover, trust is recognized to have positive effect on perceived usefulness since trust allows consumers to become vulnerable to e-vendors to ensure that they gain the expected useful information and service (Pavlou, 2003). We propose the hypothesis.

H7. Trust has a positive effect on perceived usefulness in online shopping.

One study discussed the potential linkage between trust and customer satisfaction in terms of an exploration in pre-purchase and post-purchase behaviors in online shopping (Kim et al., 2009). Another was in an attempt to understand consumers' loyalty intention in online shopping while proposing a direct effect of trust on customer satisfaction (Chiu et al., 2009). We propose the hypothesis.

H8. Trust has a positive effect on customer satisfaction in online shopping.

Finally, prior research revealed that complaint intentions arise when they encounter a dissatisfied circumstance in online shopping (Thogersen et al., 2009). Many studies also supported a direct relationship between customer satisfaction and complaint intentions in online environment (Voorhees and Brady, 2005). In other words, when consumers feel more dissatisfied, the complaint intentions increase. We propose the hypothesis.

H10. Customer satisfaction has a negative effect on complaint intention in online shopping.

3 RESEARCH DESIGN

3.1 Instrumentation

A survey method was conducted to collect empirical data. The instrument contains a two-part questionnaire, a nominal scale for basic information and a seven-point Likert scale for research constructs. Basic information collects the information about consumer characteristics, including gender, education level, job, online shopping experience, and failed service experience. The measuring items for the three justice components were adapted from the measurement developed by Blodgett et al. (1997), Martinez-Tur et al. (2006), and Turel et al. (2008). They contain 4 items, 4 items and 4 items respectively. The

measuring items for confirmation, perceived usefulness and satisfaction were adapted from the measurement developed by Bhattacherjee (2001), Olsen (2002), and Finn et al. (2009). They contain 3 items, 3 items and 5 items respectively. The measuring items for trust were adapted from Gefen et al. (2003) and Kim et al. (2009). Four items are included. Complaint intention was measured with items based on Singh (1988) and Chea and Luo (2008). It comprises 5 items.

3.2 Sample Design

For the survey, qualified respondents are the shoppers with previous experience in online shopping. Furthermore, they were asked to reflect on a recent experience of online shopping for products or services (within the past three months) that served as the basis for completion of the survey. This study employed an online survey during the period of February-April in 2011. Public notice of the survey questionnaire was published in a number of bulletin board systems and forums. There is also a reward system offered for the respondents. Initially, pretest was conducted for the scale. The scale was carefully examined by selected practitioners and academicians in this area, including translation, wording, structure, and content. After the questionnaire was finalized, the online survey was carried out in terms of the above procedure. A total of 1057 respondents were received with shopping experience and 40 were incomplete in their responses. This results in a valid sample size of 1017 for this study. Of the respondents, 64.9% is female, 72.9% is 21-40 years old, 49.5% is less than 3 years of online shopping experience, and 65.7% is failed service experience

3.3 Measurement Model

This study employed structural equation modeling (SEM) technique with AMOS 7.0 software to test the proposed model. The most common SEM estimation procedure is maximum likelihood estimation (MLE). Theoretically, the sample size for executing MLE requires it at least 10 times of the total number of measuring items. There are 1017 valid questionnaires and it is enough for executing MLE to analyze data.

The testing results reported a goodness of model fit with the indices of $\chi 2/df$ (1036.23/495=2.09), TLI (0.92), CFI (0.93), and RMSE (0.08). Next, item loadings range from 0.73 to 0.92, composite reliabilities range from 0.85 to 0.91, and AVEs range from 0.56 to 0.79. This

indicates reliability and convergent validity in a highly acceptable level. Each construct's square root of AVE is above its correlations with other constructs. These results indicate discriminant validity in a highly acceptable level.

4 HYPOTHESES TESTING

The structural model was used to examine hypothesized path and variance explained for the endogenous variables (R^2), as indicated in Figure 2.
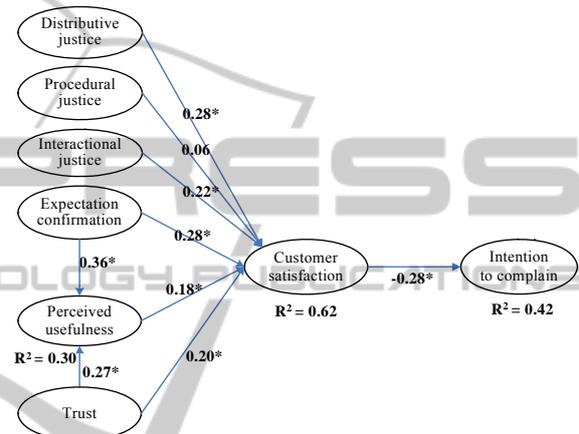

Figure 2 Results of the structural model Value on path: Standardized coefficients, R^2: Coefficient of determination, *: p<0.01.

In the justice components, distributive justice and interactional justice are two important antecedents in determining customer satisfaction (β=0.28 and 0.22) and procedural justice indicates no significance in its influence (β=0.06). Therefore, Hypotheses 1 and 3 are supported, but Hypothesis 2 is not supported. In the ECM-based components, confirmation of expectations plays a critical role in determining perceived usefulness and customer satisfaction (β=0.36 and 0.28). Therefore, Hypotheses 4 and 5 are supported. Perceived usefulness is an important predictor of customer satisfaction (β=0.18). Therefore, Hypotheses 6 is supported. In the trust construct, it shows a significant influence on perceived usefulness and customer satisfaction (β=0.27 and 0.20). Thus, Hypotheses 7 and 8 are supported. Moreover, confirmation of expectation and trust jointly explains 30% variance of perceived usefulness (R^2=0.30). Next, justice components, ECM-based features, and trust jointly explain 62% variance of customer satisfaction (R^2=0.62). Finally, customer

satisfaction is viewed as a mediator in achieving complaint intentions through its antecedents and indicates a significant impact on complaint intentions (β=-0.28). Therefore, Hypotheses 9 is supported. Moreover, customer satisfaction explains 42% variance of complaint intentions (R^2 =0.42).

5 FINDINGS AND DISCUSSIONS

In the justice components, distributive justice and interactional justice remain to be important predictors of customer satisfaction and in turn, complaint intentions, as in many prior studies with physical stores (Smith et al., 1999; Martinez-Tur et al., 2006). These results are quite interesting to online vendors. First, while the Internet-based mechanisms are highly penetrable for their users to share beliefs, thoughts, and behaviors, such as virtual communities, blogs, and face book, online consumers are often in an easy way to compare the products or services offered by online stores, such as quality and price, with other buyers for the fairness of their exchange or purchase. If the outcome of their exchange is unfair, that is, the failure of distributive justice, consumers will definitely feel dissatisfaction and tend to complain it to online vendors. Next, interactional justice for the online stores indicates the importance of designing a better shape of system interface. System interface should be presented both in a trustworthy manner and in a user-friendly mode to enable a good communication to online consumers. More specifically, it can be trusted by online consumers in terms of the features of privacy, security, and accuracy in the interaction with online stores.

Besides, procedural justice indicates non-significant impact on customer satisfaction, which is consistent with some previous studies (Martinez-Tur et al., 2006; Chiu et al, 2009). The reasons behind this may be explained as below. The history of e-commerce has been defined in a mature form for a long time since the advent of the Internet and communication technologies in a decade ago. The procedures or policies for dealing with online shopping, such as trading rules, payment, return, delivery, and so on, have been defined clearly for most online firms. They are well embedded into system architecture and are operated without any interference from human being. It is easy and convenient for experienced and inexperienced shoppers to follow these rules in a straightforward manner. Online shoppers do not regularly feel inconsistent in their purchase process and are treated

in a relatively fair form. While most shoppers are well known with the trading rules defined in online systems, there is less possibility to give rise to dissatisfaction and unfairness in the purchase process. In contrast, it would be more likely to introduce dissatisfaction and unfairness in a human-oriented purchase process while these rules intend to be amended by employees from time to time.

In the ECM-based features, confirmation of expectations, perceived usefulness, and customer satisfaction show positive relationships between them. In general, this study indicates the importance of considering technology use perspective in terms of ECM-based features in the online shopping context. Specifically, confirmation of expectations has positive impact on perceived usefulness and further, both of them significantly influence customer satisfaction toward using online systems. This may be explained by the importance of confirmation of expectations in initially driving the activities of online purchase. Before consumers can be ready for doing online shopping, they need to first confirm their original expectation from online stores as a convenient and efficient way to get their products or services. In that, the better way for consumers to search and find purchase items in online stores can be termed perceived usefulness.

For the trust beliefs, it has direct impact and indirect impact through perceived usefulness on customer satisfaction. Trust is the underlying basis for the effect of a consumer's belief on online purchase. As discussed previously, perceived usefulness was defined as a post-adoption or repurchase-intention belief toward online purchase behavior. Without a building of initial trust beliefs, perceived usefulness, in essence, would not be constructed in favor of online purchase. Next, by the same token, customer satisfaction is in a similar definition with a post-consumption behavior driving by an initial trust belief of reducing trading uncertainty. In sum, complaint intentions are well demonstrated with its explained ability from these proposed antecedents in this research.

6 CONCLUSIONS AND SUGGESTIONS

Overall, the proposed model with justice, technology use, and trust drivers provides useful insights into explaining and predicting complaint behaviors in the online shopping. Several important practical implications arise from our findings. A high proportion of online shoppers (over 65%) has the

experience of a service or produce failure in online shopping. Therefore, online stores should carefully take account of consumers' complaints as their major concern for maintaining long-term relationship. The primary work, in general, focuses on improving the communication channel between online stores and consumers.

Specifically, justice was found to be the important drivers in determining complaint intentions. This implies a consideration from marketing aspect to effectively improve the communication channel. The marketing activities which are related to the products and treatments offered by online stores play a critical role in determining consumer's justice perception. Customer relationship management (CRM) intends to deeply understand customer requirements in an individual basis and to eventually build long-term relationship. CRM would be an important mechanism to effectively communicate with consumers for maintaining the quality of products and treatments.

Next, ECM-based features are the necessary for customers to impact complaint intentions. This indicates an understanding of technological aspect for improving the communication channel. Online stores need to improve both front-end and back-end mechanisms at the same time. In the front-end part, online stores should develop high accessible and speedy hardware, user-friendly system interface, effective searching engines, and ease-operating system navigation. In the back-end part, online stores can analyze useful customized information to fulfill consumer requirements and allow consumers to manage their orders, payments, and deliveries in a more efficient way.

Finally, while trust belief is also important in predicting consumer complaints, this implies that a psychological state aspect needs to be built for enhancing consumer's confidence before their willingness to accept the communication channel. The effort from online stores may focus on two possible ways. The first is to send a signal/advertising message in both physical and virtual manners for promoting consumer's recognition of sellers. The second is often to conduct a survey research for understanding the real requirements of consumers in order to reduce the gap between sellers and buyers.

Some theoretical implications are also noted from the findings. First, to the best of our knowledge, there are few studies about complaint intentions in the online shopping context. It is important to explore complaint behaviors in order to

understand and recover service failure in online shopping while this shopping has increasingly become very important in our life. Second, while justice perception has been applied mostly in the physical context, few studies have been found in the online context. We think that it is important to consider the role of justice perception in the complaint behaviors of online shopping.

Finally, although this research has produced some interesting results, a number of limitations may be inherent in it. First, a limitation may be the sampling method employed in this study while this is an online questionnaire survey. However, we have tried our best to place the questionnaire simultaneously on several larger online communities for covering a larger/wider variety of data sources for being more representative in the study sample. Second, this study showed that approximately 65% and 35% of the respondents are female and male respectively. The result may not reflect properly the regular population distribution of gender and cause a potential bias against the current findings. However, in fact, women are more likely to do online shopping than man and this would, in essence, reflect the actual situation.

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