

Association for Information Systems AIS Electronic Library (AISeL)

PACIS 2008 Proceedings

Pacific Asia Conference on Information Systems
(PACIS)

July 2008

REPURCHASE BEHAVIOR IN B2C ECOMMERCE-A RELATIONSHIP QUALITY PERSPECTIVE

Yixiang Zhang

USTC-CityU Joint Advanced Research Center, yixizhang2@student.cityu.edu.hk

Yulin Fang

City University of Hong Kong, ylfang@cityu.edu.hk

Kwok Kee Wei

City University of Hong Kong, isweikk@cityu.edu.hk

Elaine Ramsey

University of Ulster, e.ramsey@ulster.ac.uk

Patrick McCole

Queen's University Belfast, p.mccole@qub.ac.uk

See next page for additional authors

Follow this and additional works at: <http://aisel.aisnet.org/pacis2008>

Recommended Citation

Zhang, Yixiang; Fang, Yulin; Wei, Kwok Kee; Ramsey, Elaine; McCole, Patrick; and Chen, Huaping, "REPURCHASE BEHAVIOR IN B2C ECOMMERCE-A RELATIONSHIP QUALITY PERSPECTIVE" (2008). *PACIS 2008 Proceedings*. 105.

<http://aisel.aisnet.org/pacis2008/105>

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2008 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Authors

Yixiang Zhang, Yulin Fang, Kwok Kee Wei, Elaine Ramsey, Patrick McCole, and Huaping Chen

REPURCHASE BEHAVIOR IN B2C ECOMMERCE—A RELATIONSHIP QUALITY PERSPECTIVE

Zhang, Yixiang, USTC-CityU Joint Advanced Research Center, University of Science and Technology of China, Suzhou, P.R.China, yxzhang@mail.ustc.edu.cn

Fang, Yulin, City University of Hong Kong, Hong Kong, P.R. China, ylfang@cityu.edu.hk

Wei, Kwok Kee, City University of Hong Kong, Hong Kong, P.R. China, isweikk@cityu.edu.hk

Ramsey, Elaine, University of Ulster, Northern Ireland, UK, e.ramsey@ulster.ac.uk

McCole, Patrick, Queen's University Belfast, Northern Ireland, UK, p.mccole@qub.ac.uk

Chen, Huaping, University of Science and Technology of China, Hefei, P.R. China, hpchen@ustc.edu.cn

Abstract

Information systems research continues to pay increasing attention to online customer retention. Drawing on the relationship marketing literature, this study formulates and tests a theoretical model to explain B2C ecommerce consumer repurchase intention from the perspective of relationship quality. The model was empirically tested through a large-scale survey conducted in Northern Ireland. The results show that relationship quality impacts consumer repurchase intention positively. Meanwhile, relationship quality is positively influenced by vendor expertise on order fulfillment, vendor reputation, and website usability. Vendor opportunistic behavior influences relationship quality negatively. Implications for future research and practice are also discussed.

Keywords: repurchase intention, relationship quality.

1 INTRODUCTION

Recent years have seen an increasing development of B2C electronic commerce and a growing interest in B2C electronic commerce research. An important field of electronic commerce research is the understanding of consumer online buying behavior. Online buying behavior can be usually understood in terms of two stages: the initial acceptance and the post-acceptance stages (Bhattacharjee 2001). In the first stage, the main concern is the attraction of people to accept engagement in ecommerce, e.g. how to promote peoples' intentions to purchase online. After the initial acceptance stage, online consumer retention becomes critical to the success of the ecommerce vendor. It would cost much more to acquire new customers than retain existing ones, especially within the context of the Internet (Reichheld and Schefter 2000). The retention of existing customers can save costs and bring the seller more profit, and hence is seen as a means towards gaining competitive advantage (Tsai and Huang 2007). Recently, researchers have shown an increasing interest in customer retention in the B2C context from diverse perspectives (Gefen 2002; Cyr et al. 2005; Flavian, Guinaliu and Gurrea 2006; Tsai and Huang 2007; Casalo', Flavia'n and Guinali'u 2008). The current paper offers a new perspective - relationship quality - in understanding online repurchase behavior based on theories derived from relationship marketing.

The literature review on customer retention shows there are two main streams of research: the transactional view and the relational view (Li, Browne and Wetherbe 2006). The transactional view identifies consumer satisfaction as a key factor in predicting customer loyalty (Anderson and Srinivasan 2003; Casalo' et al. 2008). The relational view treats trust as a key factor influencing customer loyalty (Gefen, Karahanna and Straub 2003). Although both satisfaction and trust are important factors influencing customer retention, little research studying customer retention has focused on the two factors

simultaneously (Flavian et al. 2006), primarily due to their different theoretical backgrounds. Consumer satisfaction is derived from Expectation-Confirmation theory (ECT) (Oliver 1980) and IS continuance model (Bhattacharjee 2001). ECT was developed by Oliver (1980) to explain consumer repurchase behavior, and argues that satisfaction is the main driving force behind consumers' repurchasing intentions. Based on ECT, Bhattacharjee (2001) built an IS continuance model, and argued that satisfaction was the main factor influencing IS continuance intention. On the other hand, trust is considered important in ecommerce because of the risk and uncertainty in ecommerce (McKnight, Choudhury and Kacmar 2002a; Gefen et al. 2003). Trust helps consumers overcome the perception of risk and uncertainty and engage in online transactions with vendors (Gefen 2002; McKnight et al. 2002a; Gefen et al. 2003). Thus, trust is another key factor influencing customer retention.

Our study attempts to take the above mentioned research on online customer retention one step further by introducing a relational marketing perspective. The relationship marketing literature, where a prolonged buyer-seller relationship is of central concern, focuses on the buyer satisfaction with and trust in the vendor simultaneously by conceptualizing them as two key dimensions of a higher-order construct — relationship quality (Crosby, Evans and Cowles 1990). It contends that both satisfaction and trust are indispensable in maintaining a healthy vendor-customer relationship. Satisfaction reflects an effective state resulting from their evaluation of a vendor's past performance (Tsai and Huang 2007), whereas trust reflects their confidence in a vendor's future performance (Crosby et al. 1990). From the relational marketing perspective, a customer-vendor relationship is considered high quality only when both past and future performance of the vendor is favorably perceived. It is posited that the construct of relationship quality, as a more comprehensive assessment of vendor-consumer relationship, might be most instrumental to consumer retention and increased consumer loyalty (Rust and Kannan 2003).

By drawing upon the relationship marketing literature, the current study is purported to investigate the influence of relationship quality on consumer's repurchase intention in the B2C ecommerce context, and identifies the antecedents of relationship quality. Specifically, we address the following research questions: (1) *To what extent does vendor-consumer relationship quality influence B2C consumers repurchase intention?* (2) *What factors influence online vendor-consumer relationship quality?* The paper proceeds with a review on the relationship marketing literature, introduction of the research model, followed by an empirical study to test the hypotheses. Implications and limitations are also discussed.

2 CONCEPTUAL BACKGROUND

The past decade has seen an explosive growth of relationship marketing research (Srinivasan and Moorman 2005). Morgan and Hunt (1994, p 22) define relationship marketing as "all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges." The promise of relationship marketing is that efforts can generate enduring long-term customer relationships that enhances vendor performance and customer purchase behavior (Palmatier et al. 2006). In relationship marketing, a key question involves the assessment of the vendor-consumer relationship, and relationship quality is used as a key construct (Crosby et al. 1990).

Although earlier research in relationship marketing has investigated and tested relationship quality in different contexts, their definition and conceptualization remain different, and lack a consistent definition and conceptualization (De Wulf, Schroder and Iacobucci 2001; Palmatier et al. 2006). Nevertheless, researchers agree that relationship quality is a higher-order factor consisting of several different and related sub-constructs or dimensions, including satisfaction, trust, and commitment (De Wulf et al. 2001; Johnson, Sohi and Grewal 2004).

This paper is based on the relationship quality model proposed by Crosby and his colleagues, which focuses on the long-term relationship between service provider and consumers (Crosby et al. 1990). Relationship quality is positioned as a key mediator between three antecedents and two consequences. High relationship quality means "the consumer is able to rely on the salesperson's integrity and has confidence in the salesperson's future performance" (Crosby et al. 1990, p.70). The construct of relationship quality encompasses two aspects of a relationship: trust and satisfaction. Crosby et al. (1990)

argue that a good relationship is developed only when buyers feel satisfied with and trust in the relationship with the vendor. Accordingly we conceptualize relationship quality as a higher-order construct composed of trust and satisfaction. This kind of conceptualization of relationship quality is commonly used in the literature (Crosby et al. 1990; Boles, Johnson and Barksdale 2000; Kim and Cha 2002; Lin and Ding 2006; Cheng, Chen and Chang 2007).

There are two consequent factors of relationship quality. One is sales effectiveness, the quantitative measure of a seller's overall sales performance, while the other is the consumer's anticipation of future interaction. However, the empirical result finds no significant relationship between relationship quality and sales effectiveness; therefore we do not include sales performance in our model. In this paper, we focused on relationship quality's influence on consumer's repurchase intention.

Two categories of factors are identified as the antecedents of relationship quality: vendor characteristics and vendor behavior. Vendor characteristics include similarity with consumers and service domain expertise (Crosby et al. 1990). Similarity with consumers includes appearance similarity, lifestyle similarity and status similarity. Consumers tend to develop good relationships with sellers who show similarity with them, and they tend to feel satisfied and trust those sellers who display excellent domain expertise. However, empirical results find only expertise to influence relationship quality significantly, but not similarity. In the context of B2C ecommerce, where there is little social contact, it is hard for the consumers to feel similarity with vendors, such as on appearance, lifestyle and status. Therefore, we only include vendor expertise in this paper as one vendor characteristic which influences relationship quality.

Vendors can promote the relationship quality by taking some behaviors, such as disclosure of personal information to their consumers, interacting intensively with consumers, and showing cooperative intention to consumers (Crosby et al. 1990). In the relationship with the vendor, the consumer can observe vendor's behavior and compare with their expectations. If the vendors behave just as expected, customers tend to maintain and develop the relationship with the vendors. If the consumers feel hurt or cheated, they will reduce or stop the relationship with the vendor. One such behavior which can damage relationship quality with consumers is called opportunistic behavior. Vendor opportunistic behavior is the violation of vendor promises about the consumers (Morgan and Hunt 1994), such as promise to do something without doing later (Morgan and Hunt 1994).

In B2C ecommerce, the vendor's website plays a very important role. It is the main contact point and interface between the vendor and the consumer (Palmer 2002). The consumer cannot touch the product directly before buying it. Consumers find product information in the website, and conduct the transaction of buying through the website (Pavlou and Fygenon 2006). The virtual nature of the online market highlights the importance of the website. The consumer's perception of the vendor is largely based on the vendor's website. A well-designed website increases a customer's satisfaction and trust toward the vendor (Flavian et al. 2006). From the relationship marketing view, the online vendor can exhibit concern for the welfare of consumers through the website by means of establishing a website with high quality. Thus, we also include website characteristics.

3 RESEARCH MODEL AND HYPOTHESES

Our model explains consumer's repurchase intention in the context of B2C ecommerce. Antecedents of relationship quality are identified based on (Crosby et al. 1990) and new constructs are modified and added based on the literature in B2C ecommerce research. Figure 1 shows our research model.

3.1 Relationship quality

According to relationship marketing theory, when consumers perceive a high relationship quality with the vendor, meaning the consumers are satisfied with and trust in the vendor, they are more likely to stay with the same vendor and engage in repurchasing behavior after the initial buying (Crosby et al. 1990; De Wulf et al. 2001). This is also supported by empirical research (Li et al. 2006). We thus present the following hypothesis:

H1: Relationship quality is positively related to customer repurchase intention.

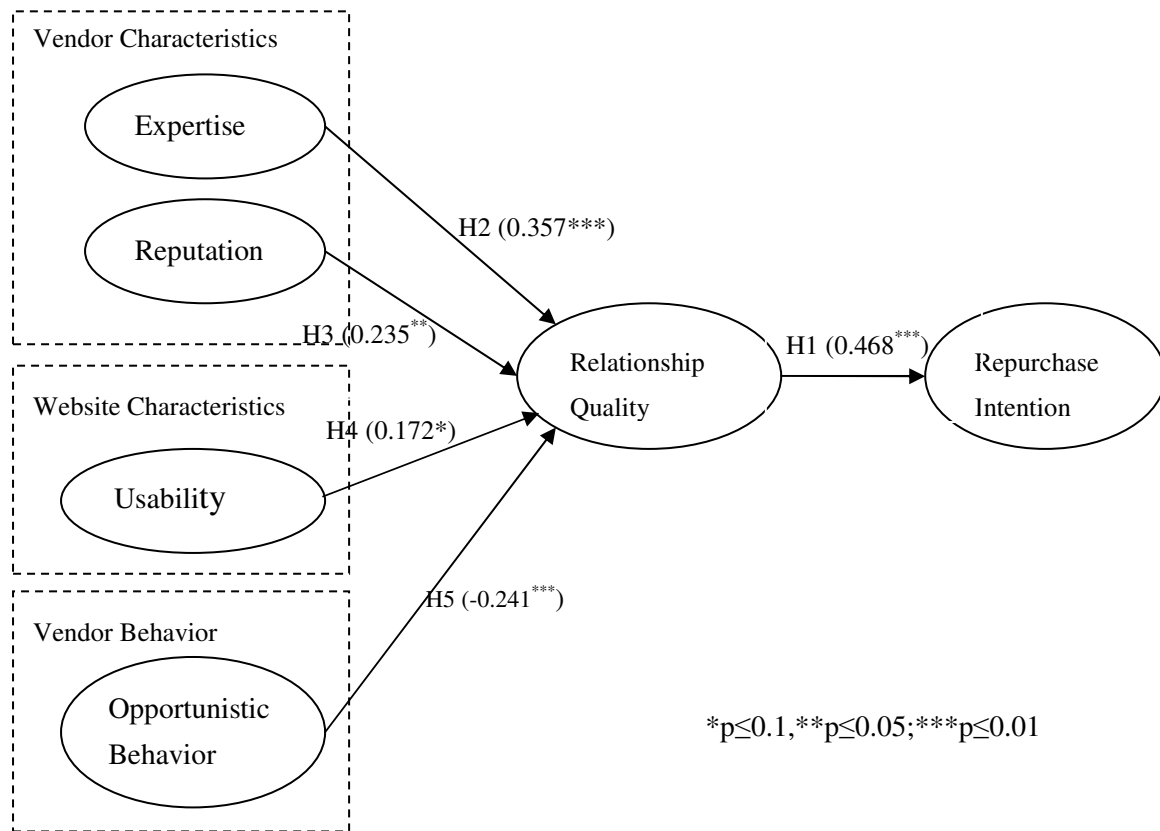


Figure 1 -Research model and results of PLS analysis

3.2 Vendor characteristics

3.2.1 Vendor expertise

Domain expertise is an important characteristic exhibited by the vendor. “Salesperson’s expertise reflects the identification of relevant competences associated with the goods or service transaction most often exhibited in the form of information provided by salesperson” (Crosby et al. 1990, p 72). In their study, Crosby et al. (1990) found a significant relationship between salesperson expertise and relationship quality. In B2C ecommerce, order fulfillment is an important characteristic of the online vendor (Cao, Gruca and Klemz 2003). In this paper, we study perceived vendor expertise on order fulfillment by online consumers. When a consumer’s perception of online vendor expertise on order fulfillment is high, the consumer believes that the vendor has the ability and relevant competencies associated with order fulfillment. In this situation, the consumer has the confidence that he/she can get the product on time, which increases his/her satisfaction of trust. Otherwise, if the consumer believes that the vendor does not have enough resources and abilities to ensure order fulfillment, the consumer reduces his/her satisfaction level and trust toward the vendor. Therefore, consumers tend to develop long-term relationships when they perceive high vendor expertise. Along with Crosby et al.(Crosby et al. 1990), we present the following hypothesis:

H2: Perceived vendor expertise on order fulfillment is positively related to relationship quality

3.2.2 Vendor reputation

Consumers can perceive vendor reputation based on second-hand information about the vendor (McKnight, Cummings and Chervany 1998), or based on the evaluation of the vendor's past performance and behavior (Kim, Xu and Koh 2004). Reputation is associated with brand equity and firm credibility. Reputation can be seen as a signal of high trustworthiness and credibility. Reputation is an important asset of firms which needs long-term investment of resources and efforts (McKnight, Choudhury and Kacmar 2002b). Reputation is difficult to build and easy to lose (Herbig, Milewicz and Golden 1994), thus the vendor has the motivation to maintain a good reputation once it is established. Also, consumers tend to trust the vendor who has a high reputation based on the belief that firms with good reputations are reluctant to risk their reputation by acting opportunistically (Kramer 1999; Ahuja 2000).

Empirical research also shows that reputation is an important trust-building factor for online vendors and is significantly related with trust (McKnight et al. 2002b; Kim et al. 2004). Given the importance of reputation, we can assume that the consumer prefers to develop a good relationship with vendors when they perceive high reputation. Therefore, we present the following hypothesis:

H3: Perceived vendor reputation is positively related to relationship quality.

3.3 Website usability

In B2C ecommerce, the main contact point between the seller and the consumer is the website (Palmer 2002). Prior research highlighted the significant influence of website characteristics on online buying behavior (Yoon 2002; Flavian et al. 2006). Given its importance, prior research has put much effort into studying the website. Among website characteristics, website usability is an important variable influencing consumer online behavior. Usability is defined as "the effectiveness, efficiency and satisfaction with which specified users achieve specified goals in particular environments" (Flavian et al. 2006, p 2). In the context of ecommerce, the website is often measured based on the consumer's evaluation of usage experience (Zviran, Glezer and Avni 2006); the standards of measurement includes ease of navigation, among other things (Flavian et al. 2006).

Prior research has found website usability to affect online consumer buying behavior. Yoon (2002) found a website's characteristics to be significant antecedents to consumer trust and navigation functionality as a significant antecedent to consumer satisfaction; Zviran et al. (2006) studied the effect of website usability and user-based design on consumer satisfaction, and found website usability influences user satisfaction significantly; Flavian et al. (2006) found website usability influences consumer satisfaction and trust positively; Casalo et al. (2008) found website usability influences consumer satisfaction positively. Therefore, we believe when online consumers perceive good website usability, and tend to feel satisfied and trust the vendor, thus developing good relationships with the vendor. Therefore, we expect a significant relationship between website usability and relationship quality. Thus we present the following hypothesis:

H4: Vendor's website usability is positively related to relationship quality

3.4 Opportunistic behaviour

The vendor's opportunistic behavior can damage its relationships with consumers. Opportunistic behavior refers to "any violation of promises about a party's appropriate or required behavior perceived by another party in a relationship" (Li et al. 2006, P 113). In this paper, we study the influence of opportunistic behavior perceived by online consumers. This opportunistic behavior includes vendor failure to deliver products as promised, or promises that are made but not actually fulfilled. Opportunistic behavior means the vendor does not keep promises and conducts behavior that damages consumer interest, which in turn reduces the vendor's integrity and reliability. Therefore, when consumers believe vendors are engaging in opportunistic behavior, consumers will reduce their trust towards the vendor. This concept is supported by prior empirical research (Morgan and Hunt 1994; Li et al. 2006).

Opportunistic behavior also implies violations of consumer expectations. When a consumer's expectation is not met, the consumer feels dissatisfied, implying that opportunistic behavior impacts consumer satisfaction negatively. Accordingly, we posit a negative relationship between opportunistic behavior and relationship quality with the following hypothesis:

H5: Vendor's opportunistic behavior is negatively related to relationship quality.

4 RESEARCH METHODOLOGY AND ANALYSIS

4.1 Measurement development

The main constructs of our model are measured using multiple items adapted from relevant literature. Some of the items are reworded to fit the context of B2C ecommerce. Most of the items are measured using a seven-point Likert scale in which 1 indicates "strongly disagree" and 7 indicates "strongly agree". Based on the literature review, we conceived an initial item pool. Several experts in this area of study then reviewed and examined the scale. According to their advice, some of the items were reworded, and some new items were added as some items were deleted. In this manner, we increased our content validity. A pilot study of the questionnaire was then conducted in a university where we obtained satisfactory construct reliability and validity before rolling out for a larger-scale survey.

Repurchase intention is measured by items measuring consumer's likelihood of purchasing online from the same vendor in the future at different time scales. This measurement is adopted from (Jarvenpaa, Tractinsky and Vitale 2000). Relationship quality is a second-order factor containing satisfaction and trust. Items measuring satisfaction are adopted from (Crosby and Stephens 1987; Levesque and McDougall 1996), reflecting consumer's previous experience with the vendor; trust measurement items are adopted from (Jarvenpaa et al. 2000; Einwiller 2003), reflecting consumer's perception of vendor's reliability and honesty. We measure vendor expertise and opportunistic behaviour using items adopted from (Butler 1991; Rayport and Jaworski 2002; Thomas and Housden 2002; Torkzadeh and Dhillon 2002). Vendor reputation was measured by items adopted from (Spencer 1999). Last, we developed measurement of website usability based on (Balabanis and Reynolds 2001; Chakraborty, Lala and Warren 2002; Yoon 2002).

4.2 Data collection

The survey method was used to collect data from a Northern Ireland university. The respondents were students and staff members of the university. The respondents were chosen only if: (1) they had online purchasing experience and (2) the product was for personal use.

865 questionnaires were distributed, and 381 responses were received, yielding a response rate of 44%. Some of the responses have missing values. Sixteen cases had lots of missing values, thus were deleted from the sample. Therefore, we have 365 samples. The missing values in the remaining samples were handled with mean replacement (Sutarso 1995). 69.8% of the respondents were female, 57.5% of them were university students. 60.2% are aged between 19 and 25. About 39.2% of them had annual pre-tax household income less than £20,000.

4.3 Data analysis

Following Anderson and Gerbing (1988), we took two-stage analytical procedures to analyze data. First, confirmation factor analysis was conducted to assess the measurement model. Second, Partial least square (PLS) method was used to test the theoretical model. PLS is powerful component-based analysis method which has minimal on measurement scales and residual distributions (Chin, Marcolin and Newsted 2003). PLS can handle single-item scales, such as some control variables used in this paper. We used a new PLS software SmartPLS (Ringle, Wende and Will 2005) to do the data analysis.

4.3.1 Measurement model

A reliable and validated construct is an essential prerequisite for validated results, thus we first checked for reliability and construct validity. In this paper, relationship quality was conceptualized as a second-order factor containing satisfaction and trust. Based on prior research dealing with higher-order factor (Chin et al. 2003), we used the factor score of the first-order construct as items of relationship quality.

Construct	Number of items	Composite Reliability	Average Variance Extracted
Expertise	3	0.889	0.727
Relationship quality	2	0.837	0.721
Satisfaction	3	0.920	0.794
Trust	8	0.945	0.683
Reputation	6	0.902	0.608
Usability	8	0.938	0.654
Opportunistic behaviour	4	0.890	0.689
Repurchase intention	3	0.840	0.639

Table 2- Results of confirmatory factor analysis

The construct loadings were checked and those with values greater than 0.7 were retained while the others were dropped. All of the remaining items loaded sufficiently to the relevant construct ($P < 0.01$). Table 2 shows number of items, composite reliability and average variance extracted of the final measurement. Reliability was assessed by checking composite reliability. As shown in Table 2, the lowest value of composite reliability is 0.837, which larger than the recommended value of 0.7 (Chin et al. 2003), showing good reliability.

	Mean, SD	Expertise	RQ	RI	Reputation	OB	Usability
Expertise	5.67, 1.02	0.852					
RQ	5.63, 0.89	0.641	0.849				
RI	5.95, 1.05	0.460	0.527	0.799			
Reputation	5.54, 0.96	0.471	0.611	0.305	0.779		
OB	3.70, 1.42	-0.237	-0.496	-0.265	-0.403	0.830	
Usability	6.01, 0.88	0.520	0.573	0.489	0.437	-0.315	0.809

Table 3 - Correlation between Constructs

Note: RQ: Relationship quality; RI: Repurchase intention; OB: Opportunistic behavior; SD: standard deviation. The values in the diagonal row are square roots of the average variance extracted, and others are the correlation between constructs.

Convergent validity can be assessed by examining average variance extracted from the measures (AVE). For AVE, a score of 0.5 indicates acceptability (Fornell and Larcker 1981). From Table 2, we can see the AVE ranges from 0.608 to 0.794, which shows convergent validity. From Table 3, we can see that the square root of the AVE for each construct is larger than each correlation with the other construct, thus exhibiting discriminant validity (Fornell and Larcker 1981). Convergent validity and discriminant validity could also be assessed by checking the factor loadings (Fornell and Larcker 1981). All the items loaded significantly on their target construct, and the loadings on the target construct are larger than cross loading, again confirming construct validity.

4.3.2 Structure model

After checking the validity, we tested our hypotheses with PLS. Figure 1 shows the results of the structure model, including the path coefficient and significance of the path coefficients, along with the R^2 . From the figure, we can see our model explained 30.2% of the variance of repurchases intention, and 63.5% of the variance of relationship quality.

Hypothesis 1 posits that relationship quality influences repurchase intention positively. From the figure we can see the path coefficient is 0.468 ($p < 0.01$), supporting this hypothesis. Hypothesis 2 posits that perceived expertise of vendor influences relationship quality positively, which is supported by the significant path coefficient 0.357 ($p < 0.01$). The positive impact of perceived vendor reputation is also confirmed (coefficient of 0.235, $p < 0.05$), thus supporting Hypothesis 3. Our result also shows a negative influence of seller failure on relationship quality (coefficient of -0.241, $p < 0.01$), which confirms our Hypothesis 5. However, our result shows weak evidence for Hypothesis 4: the influence of website usability on relationship quality is only marginally significant (coefficient of 0.172, $p < 0.1$).

We also included some control variables, including age, gender, educational level, income, buyers' experience in using the Internet to conduct transactions, privacy and security concerns, and familiarity with the vendor, but we did not find significant relationships with repurchase intention.

5 DISCUSSION, IMPLICATIONS, AND LIMITATIONS

5.1 Theoretical implication

The objective of this study is to enhance our understanding of factors influencing B2C ecommerce consumer retention. Marketing scholars have posited that sellers can improve customer retention by developing and maintaining a good long-term relationship with the consumers (Crosby et al. 1990; De Wulf et al. 2001). IS research has also studied the factors influencing customer loyalty, such as satisfaction (Anderson and Srinivasan 2003) and trust (Gefen 2002). This study is among the first attempts to conceptualize and empirically test B2C ecommerce consumer retention from the relationship quality perspective.

Our study demonstrated that relationship quality influences B2C ecommerce customer repurchase intention significantly. From a theoretical perspective, this finding suggests the need to extend existing ecommerce customer retention research by offering a new perspective — relationship quality — from marketing research. Marketing research has posited a paradigm shift from the transactional view to the relationship view, and called for more focus on buyer-seller relationships (Sheth and Parvatiyar 1995; Harker and Egan 2006). Therefore, it is noteworthy that online vendor-buyer relationship quality influences customer repurchase intention. This concept implies that we can learn from relationship marketing research, which can provide us with many new insights.

Our study found that relationship quality was positively influenced by vendor expertise on order fulfillment, vendor reputation, and vendor website usability. In the relationship marketing literature, vendor characteristics form an important factor which can influence relationship quality, and an important vendor characteristic is vendor expertise. In this paper, we conceptualized vendor expertise as vendor expertise on order fulfillment, which is of special significance because in ecommerce, a consumer cannot get a product immediately, but must experience a delivery process. Therefore, we specify vendor expertise as expertise on order fulfillment, including product delivery. Moreover, we studied another kind of vendor character — reputation, which was not included in relationship marketing as an antecedent of relationship quality. Nonetheless, our research found reputation as an important vendor characteristic which impacts relationship quality positively, thus extending the original model.

Online commerce transaction was done through the website, which was the main contact point and interface for vendor-seller interaction. Therefore, the website should be an important factor that influences relationship quality. Our study investigated website usability and found a marginally significant relationship, showing that website usability could influence relationship quality to some extent. As one of the first to study the influence of website characteristics on relationship quality, we call for more research on other website characteristics which may facilitate relationship quality.

Our research also found the negative influence of vendor opportunistic behavior on relationship quality. This confirmed the negative impact of vendor opportunistic behavior on relationship quality in the B2C ecommerce context.

5.2 Managerial implications

This research has some implications for the management of B2C ecommerce. It suggests that online vendor should take a relational view when doing their business. They should develop and maintain a long-term relationship with consumers; and they can evaluate this relationship using the concept of relationship quality, which influence consumers repurchase intentions. Vendor expertise on order fulfillment influence relationship quality positively. Therefore, online vendors should show their expertise to the consumers, and this will increase their relationship with consumers. For example, they can provide professional attestation as one way to show their expertise. They can also improve relationship quality by establishing a good reputation. Reputation is valuable capital which can promote relationship building and thus customer retention. At the same, online vendors should take a long term view, and refrain from behaving opportunistically. Such opportunistic behavior may reap short term benefits, but in the long run, it will damage the quality of consumer relationships. Another way to promote and improve relationship quality with consumers is through a well designed website.

5.3 Limitations and future research

This research has had some limitations. First, the participants were asked to select an online vendor from whom they have purchased; this self-select method may have biased our results. Second, our data were collected from Northern Ireland, therefore caution must be exercised when attempting to generalize the results with other countries. Future research can investigate country factors, such as culture, which may have some influences. Third, there were also some other variables which can be used to measure the vendor-consumer relationship, such as commitment (Morgan and Hunt 1994). Future research can investigate which relationship variables predict customers repurchase intention most. Finally, there are also other factors which may influence relationship quality, such as relationship marketing behaviour (Biong and Selnes 1995; Guenzi, Pardo and Georges 2007). Based on the relationship marketing literature, future research can investigate which factors are most effective in influencing relationship quality in the B2C ecommerce context.

6 CONCLUSION

This study develops and tests a theoretical model that explains B2C ecommerce consumer repurchase behaviour from the relationship quality perspective based on relationship marketing and ecommerce literature. By encompassing vendor character factors (expertise and reputation), website factors (website usability), and vendor behaviour factors (opportunistic behaviour), this study's model presents a large explanatory power for relationship quality. Our research found a positive influence of relationship quality on repurchase intention. To a certain degree, this study demonstrates the value of using relationship marketing theories to account for customer retention. This research also offers useful implications for ecommerce practitioners.

References

- Ahuja, G. (2000). Collaboration Networks, Structural Holes, and Innovation: A Longitudinal Study. *Administrative Science Quarterly*, 45(3), 425-455.
- Anderson, J. C. and D. W. Gerbing (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 41-423.
- Anderson, R. E. and S. S. Srinivasan (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology & Marketing*, 20(2), 123.
- Balabanis, G. and N. L. Reynolds (2001). Consumer attitudes towards multi-channel retailers' web sites: the role of involvement, brand attitude, internet knowledge and visit duration. *Journal of Business Strategies*, 18(2), 105-131.

- Bhattacharjee, A. (2001). Understanding Information Systems Continuance: an Expectation-Confirmation Model. *MIS Quarterly*, 25(3), 351-370.
- Biong, H. and F. Selnes (1995). Relational selling behavior and skills in long-term industrial buyer-seller relationships. *International Business Review*, 4(4), 483-498.
- Boles, J. S., J. T. Johnson and H. C. Barksdale (2000). How Salespeople Build Quality Relationships: A Replication and Extension. *Journal of Business Research*, 48(1), 75-81.
- Butler, J. K. (1991). Toward Understanding and Measuring Conditions of Trust: Evolution of a Conditions of Trust Inventory. *Journal of Management*, 17(3), 643.
- Cao, Y., T. S. Gruca and B. R. Klemz (2003). Internet Pricing, Price Satisfaction, and Customer Satisfaction. *International Journal of Electronic Commerce*, 8(2), 31-50.
- Casalo, L., C. Flavián and M. Guinaliú (2008). The role of perceived usability, reputation, satisfaction and consumer familiarity on the website loyalty formation process. *Computers in Human Behavior*, 24(2), 325-345.
- Chakraborty, G., V. Lala and D. Warren (2002). AN EMPIRICAL INVESTIGATION OF ANTECEDENTS OF B2B WEBSITES' EFFECTIVENESS. *Journal of Interactive Marketing*, 16(4), 51-72.
- Cheng, J.-H., F.-Y. Chen and Y.-H. Chang (2007). Airline relationship quality: An examination of Taiwanese passengers. *Tourism Management*, In Press, Corrected Proof.
- Chin, W. W., B. L. Marcolin and P. R. Newsted (2003). A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion/Adoption Study. *Information Systems Research*, 14(2), 189-217.
- Crosby, L. A., K. A. Evans and D. Cowles (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68-81.
- Crosby, L. A. and N. Stephens (1987). Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry. *Journal of Marketing Research (JMR)*, 24(4), 404-411.
- Cyr, D., C. Bonanni, J. Bowes and J. Ilsever (2005). Beyond Trust: Web Site Design Preferences Across Cultures. *Journal of Global Information Management*, 13(4), 25-54.
- De Wulf, K., O. G. Schroder and D. Iacobucci (2001). Investments in consumer relationships: a cross-country and cross-industry exploration. *Journal of Marketing*, 65, 33-50.
- Einwiller, S. (2003). When Reputation Engenders Trust: An Empirical Investigation in Business-to-Consumer Electronic Commerce. *Electronic Markets*, 13(3), 196-209.
- Flavian, C., M. Guinaliú and R. Gurrea (2006). The role played by perceived usability, satisfaction and consumer trust on website loyalty. *Information & Management*, 43(1), 1-14.
- Fornell, C. and D. F. Larcker (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research (JMR)*, 18(1), 39-50.
- Gefen, D. (2002). customer loyalty on E-Commerce. *Journal of the Association for Information Systems*, 3, 27-51.
- Gefen, D., E. Karahanna and D. W. Straub (2003). TRUST AND TAM IN ONLINE SHOPPING: AN INTEGRATED MODEL. *MIS Quarterly*, 27(1), 51-90.
- Guenzi, P., C. Pardo and L. Georges (2007). Relational selling strategy and key account managers' relational behaviors: An exploratory study. *Industrial Marketing Management*, 36(1), 121-133.
- Harker, M. J. and J. Egan (2006). The Past, Present and Future of Relationship Marketing. *Journal of Marketing Management*, 22(1/2), 215-242.
- Herbig, P., J. Milewicz and J. Golden (1994). A model of reputation building and destruction. *Journal of Business Research*, 31(1), 23-31.
- Jarvenpaa, S., N. Tractinsky and M. Vitale (2000). Consumer trust in an Internet store. *Information Technology and Management*, 1(1), 45-71.
- Johnson, J. L., R. S. Sohi and R. Grewal (2004). The Role of Relational Knowledge Stores in Interfirm Partnering. *Journal of Marketing*, 68(3), 21-36.
- Kim, H.-W., Y. Xu and J. Koh (2004). A Comparison of Online Trust Building Factors between Potential Customers and Repeat Customers. *Journal of the Association for Information Systems*, 5(10), 392-420.

- Kim, W. G. and Y. Cha (2002). Antecedents and consequences of relationship quality in hotel industry. *International Journal of Hospitality Management*, 21(4), 321-338.
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50(1), 569.
- Levesque, T. and G. H. G. McDougall (1996). Determinants of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 14(7), 12-20.
- Li, D., G. J. Browne and J. C. Wetherbe (2006). Why Do Internet Users Stick with a Specific Web Site? A Relationship Perspective. *International Journal of Electronic Commerce*, 10(4), 105-141.
- Lin, C.-P. and C. G. Ding (2006). Evaluating Group Differences in Gender During the Formation of Relationship Quality and Loyalty in ISP Service. *Journal of Organizational & End User Computing*, 18(2), 38-62.
- McKnight, D. H., V. Choudhury and C. Kacmar (2002a). Developing and Validating Trust Measures for e-Commerce: An Integrative Typology. *Information Systems Research*, 13(3), 334-359.
- McKnight, D. H., V. Choudhury and C. Kacmar (2002b). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of Strategic Information Systems*, 11(3-4), 297-323.
- McKnight, D. H., L. L. Cummings and N. L. Chervany (1998). INITIAL TRUST FORMATION IN NEW ORGANIZATIONAL RELATIONSHIPS. *Academy of Management Review*, 23(3), 473-490.
- Morgan, R. M. and S. D. Hunt (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), 20-38.
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research (JMR)*, 17(4), 460-469.
- Palmatier, R. W., R. P. Dant, D. Grewal and K. R. Evans (2006). Factors Influencing the Effectiveness of Relationship Marketing: A Meta-Analysis. *Journal of Marketing*, 70(4), 136-153.
- Palmer, J. W. (2002). Web Site Usability, Design, and Performance Metrics. *Information Systems Research*, 151-167.
- Pavlou, P. A. and M. Fygenson (2006). UNDERSTANDING AND PREDICTION ELECTRONIC COMMERCE ADOPTION: AN EXTENSION OF THE THEORY OF PLANNED BEHAVIOR. *MIS Quarterly*, 30(1), 115-143.
- Rayport, J. F. and B. J. Jaworski (2002). *Cases in e-commerce*. Boston, McGraw-Hill.
- Reichheld, F. F. and P. Schefter (2000). E-Loyalty. *Harvard Business Review*, 78(4), 105-113.
- Ringle, C. M., S. Wende and A. Will (2005). SmartPLS 2.0(beta). <http://www.smartpls.de>. Hamburg, Germany, University of Hamburg.
- Rust, R. T. and P. K. Kannan (2003). E-SERVICE: A NEW PARADIGM FOR BUSINESS IN THE ELECTRONIC ENVIRONMENT. *Communications of the ACM*, 46(6), 36-42.
- Sheth, J. N. and A. Parvatiyar (1995). The Evolution of Relationship Marketing. *International Business Review*, 4(4), 397.
- Spencer, B. (1999). An Examination of the Relationship Between Corporate Image and Sponsorship. Unpublished Master of Business Thesis. Department of Marketing. University of Otago.
- Srinivasan, R. and C. Moorman (2005). Strategic Firm Commitments and Rewards for Customer Relationship Management in Online Retailing. *Journal of Marketing*, 69(4), 193-200.
- Sutarso, T. (1995). A comparison of the robustness of four procedures used for estimating missing data: Listwise deletion, mean substitution, hot-deck, and regression. United States -- Alabama, The University of Alabama.
- Thomas, B. and M. Housden (2002). *Direct marketing in practice*. Boston, Oxford.
- Torkzadeh, G. and G. Dhillon (2002). Measuring Factors that Influence the Success of Internet Commerce. *Information Systems Research*, 13(2), 187-204.
- Tsai, H.-T. and H.-C. Huang (2007). Determinants of e-repurchase intentions: An integrative model of quadruple retention drivers. *Information & Management*, 44(3), 231-239.
- Yoon, S.-J. (2002). THE ANTECEDENTS AND CONSEQUENCES OF TRUST IN ONLINE-PURCHASE DECISIONS. *Journal of Interactive Marketing*, 16(2), 47-63.

Zviran, M., C. Glezer and I. Avni (2006). User satisfaction from commercial web sites: The effect of design and use. *Information & Management*, 43(2), 157-178.

Appendix

Construct	Items	Source
Repurchase intention	Likelihood/probability that you will purchase online from the same vendor...	(Jarvenpaa et al. 2000)
	In the medium term	
	In the long term	
	I will never purchase from the same vendor again	
Satisfaction	Overall extremely dissatisfied/ overall extremely satisfied	(Crosby and Stephens 1987; Levesque and McDougall 1996)
	Overall extremely displeased/ Overall extremely pleased	
	My expectations were not met at all/My expectations were exceeded	
Trust	I believe that this vendor is consistent in quality and service	(Jarvenpaa et al. 2000; Einwiller 2003)
	I believe that this vendor is keen to fulfil my needs and wants	
	I believe that this vendor is honest	
	I believe that this vendor wants to be known as one that keeps promises and commitments	
	I believe that this vendor has my best interests in mind	
	I believe that this vendor is trustworthy	
	I believe that this vendor has high integrity	
	I believe that this vendor is dependable	
Expertise	I believe that this vendor has knowledge and expertise in distribution (i.e. how to deliver products/services)	(Butler 1991; Rayport and Jaworski 2002; Thomas and Housden 2002; Torkzadeh and Dhillon 2002)
	I believe that this vendor has efficiently integrated all necessary departments/systems that are needed to deliver products or services	
	I believe that this vendor has an efficient system for processing orders received	
Reputation	Poor public image	(Spencer 1999)
	Not /Extremely committed to customer satisfaction at all	
	Not innovative at all/Extremely innovative	
	Products and/or services are extremely poor/ excellent	
	Has an extremely poor/ excellent reputation.	
	Extremely unreliable/reliable	
Opportunistic behaviour	I believe that this vendor could sometime fail to deliver product/ service as and when promised	(Butler 1991; Rayport and Jaworski 2002; Thomas and Housden 2002; Torkzadeh and Dhillon 2002)
	I believe this vendor is sometimes unable to deliver what they promise to	
	I believe that this vendor is sometimes unable to meet expectations	
	I believe that this vendor sometimes promises more than they can deliver	
Usability	Extremely difficult/ easy to use	(Balabanis and Reynolds 2001; Chakraborty et al. 2002; Yoon 2002)
	Extremely unprofessional/ professional	
	Extremely poorly organised/ well organised	
	Extremely poor/excellent breadth of product/ service selection	
	Extremely/ excellent breadth of product/service selection	
	Extremely difficult/ easy to navigate	
	Extremely difficult/ easy to find information that I want	
	Extremely difficult to conduct online shopping	