

Abstract

Personalized services, which make customers feel that service employees are polite, friendly, and exhibit personal warmth, and that customers are unique and valued, are essential in building good customer relationships. Establishing personalized relationships on the Internet appears impossible. However, the characteristics of reduced cues and asychronized communications make email an effective tool for cultivating relationships between e-retailers and their customers. A sample of 254 students from a university in Northern Taiwan participated in an experiment. Structural equation modeling revealed that frequent personalized emails improve the relationship between e-retailers and their customers, enhance service quality, and engender customer loyalty. Furthermore, personalized emails enhance relationship quality more for female customers than for male customers. Finally, future research and managerial implications are discussed.

Keywords: Email; e-service; gender; relationship quality; service quality

Introduction

Relationship marketing has been the subject of extensive academic research (Alajoutsijärvi, et al., 2000; Berry, 1995; Verhoef, 2003) and is practiced by many companies (Loveman, 2003). A key component in building good relationship with customers is personalized services (Kandampully, 1998), which make customers perceive service employees as polite, friendly, and warm, creating the feeling that the customer is unique and valued. Personalization, defined as the social content of interaction between service or retail employees and their customers (Mittal & Lassar, 1996) significantly enhance the relationship between a company and its customers, improve service quality, and engender customer loyalty. In this definition, personalization is not limited to face-to-face (FtF) interaction since interaction can happen in real world as well as in virtual space. However, when examining personalization in service settings, almost all previous works scrutinized service encounters, i.e., FtF interaction between service providers and customers (Berry, 1995; Crosby et al., 1990; Mittal & Lassar, 1996; Price & Arnould, 1999). Given the self-service nature of Internet commerce, exhibiting politeness, friendliness, and personal warmth, and making customers feel unique and valued do not appear to be a major issue. To our knowledge, few previous works have examined the social aspects of the online relationships between a firm and its customers.

Gwinner et al. (1998) suggested that customers in long-term relationships experience three primary benefits beyond the core service: confidence benefits, social benefits and special treatment benefits. Confidence benefits describe the reduction of uncertainty in transactions and the increase in realistic expectations for a service encounter. Social benefits refer to the emotional aspects of relationships and focus on personal recognition of customers by employees and the development of friendships between customers and employees. Special treatment benefits consist of both economic and customization advantages for the consumer. However, when examining relational benefits on the Internet, Yen & Gwinner (2003) specifically excluded social benefits, indicating that no opportunity exists to develop social relational benefits. Building personalized relationships, and therefore offering social benefits to customers, without FtF encounter appears difficult if not impossible. However, many retailing activities now occur on the Internet and the economic importance of e-retailing is expected to continue to increase. It is important to explore whether building personalized relationships on the Internet is possible and beneficial to both e-retailers and cutomers.

The central thesis of this study is that email is an effective service tool via which e-retailers can offer social benefits to customers. This study thus aims to demonstrate that by using personalized emails, e-retailers can enhance the relationship between

retailers and their customers, improve service quality, and engender customer loyalty. Furthermore, since females value relationships more than males do, this work also shows that personalized emails improve relationship quality more for females than for males.

The Power of emails

Importance of email in building relationships

Email is the most frequently performed activity on the Internet by consumers (Schiffman *et al.*, 2003). DoubleClick (2005) shows that email has become an integral part of the consumer lifestyle. Seventy-eight percent of respondents have made a purchase as a result of an email. Fifty-nine percent of respondents have redeemed an email coupon in a store. One third of respondents have clicked on an email and made an immediate purchase. Furthermore, for 64 percent of consumers, email is the most popular method for learning about new promotions, products, and services (Martin *et al.*, 2003).

Email offers numerous benefits to e-retailers in communicating with their customers. Email is often the sole two-way communication medium between an e-retailer and a specific customer. Email communication is asynchronized, meaning that the sender and receiver do not have to present simultaneously when communication happens, thus offering convenience and reduced cognitive efforts for

both parties. Email is also extremely inexpensive, and enables firms to instantly reach customers in any part of the world. Email traditionally has been considered a task-oriented medium, for example, sending brief emails to inform a customer that an order has been received. However, as Panteli (2002) pointed out, within an organization emails carry power cues. Similarly, emails carry social cues in the relationship between the e-retailer and the customer. Teo (2005) indicated that providing personalized services via e-mails can instill a feeling of uniqueness in customers. This feeling of uniqueness helps differentiate the brand from others and increase customers' involvement with the brand. Emails thus offer opportunities for e-retailers to cultivate their relationships with customers.

If an organization sells products on the Internet, customers expect to receive service through the same channel (Carlson, 2000). Unfortunately, e-service is generally poor (Burke, 2002; Kolesar & Galbraith, 2000; Zeithaml, 2002). Kolesar & Galbraith (2000) suggested that this results from the nature of the medium, since the Internet lacks the capacity for direct personal interaction as in the physical world. However, the lack of direct personal interaction can present e-retailers with opportunities to offer thoughtful email responses to customer requests and complaints, resulting in better relationship quality. A closer examination of the characteristics of

emails as a communication medium can help us understand the potential of email for relationship building.

The development of relationships via email

To understand power of email, it is imperative to examine the communication process, which comprises four elements: sender, receiver, medium, and feedback process (Walther, 1996).

Email participants are not influenced by cues such as physical appearance or vocalic attributes. They were better able to plan and had increased self-censor opportunity. Dealing with customers by email, e-retailers do not have to train their employees to dress, to smile, to look interested or to act appropriately. Service workers of brick-and-mortar retailers experience tension and discomfort when required to display non-genuine emotions (Hochschild, 1983). However, employees of an e-retailer do not experience such tension and discomfort. They can take time and focus on selecting language that will present the e-retailer in the best possible light of virtual employee service. Asynchronous interactions thus can be more socially desirable and effective.

Besides a text message, an email carries few additional cues, leaving the receiver to produce his or her own mental picture of the sender. Partners in email communication engage in an "overattribution" process (Walther, 1994). Since cues

are limited, whatever subtle social context cues do appear in emails become extremely valuable. Lee (1994) argued that email recipients are active producers of meaning.

Since customers take cues from emails and attribute great weight to those cues, an e-retailer should be able to convey, more easily than its offline counterparts the message that it cares for and values the customer. These messages enable e-retailers to build strong relationship with customers.

The absence of participants' physical being in CMC increases the flexibility of the impression one can make. Chilcoat & DeWine (1985) examined the interpersonal perceptions individuals had of one another when they communicated via three synchronous systems that varied in terms of the number of cues presented: FtF, videoconferencing, or audioconferencing. They found that in the condition in which they could not see each other, participants perceived their partners as more physically attractive; i.e., visual contact can negatively affect interpersonal perceptions. Thus, e-customers are likely to think of e-service employees and e-retailers more favorably than their offline counterparts.

Snyder *et al.* (1977) provided a good example of the feedback process. Their study involved male subjects engaging in telephone conversations with female subjects. In the experiment, the male subjects were led to believe that their female conversational partners were either physically attractive or unattractive. Those who

were led to believe that they were talking to attractive females acted in a more sociable, interesting, outgoing and humorous manner than those led to believe they were talking to unattractive females. Similarly, women who unknowingly were treated as attractive by their conversational partner displayed greater confidence, animation, and enjoyment of the conversation than did those in the unattractive condition. Thus the beliefs of the male subjects regarding their female conversational partners affected their behaviors, which in turn affected the behaviors of the female conversational partners. The behaviors of female subjects then affected the behaviors of the male subjects, completing a loop. This type of behavioral confirmation also happens in FtF communications. However, the loop in CMC communications may happen more easily and be intensified by the limited availability of cues.

Bharatia & Bergb (2005) build a model that elucidates the impact of information systems on service quality. If an e-retailer treats its customers in a polite, warm and friendly manner by email, customers will feel it, and in turn will provide positive feedback to online services personnel and the e-retailer, resulting in pleasant feedback. Thus, e-retailers should exploit text-based interaction to form levels of relationships that would be more difficult to achieve offline. In e-retailing environments where repeat purchase is common, time is not constrained. A retailer can take time to build good customer relationships. Furthermore, for e-retailers the interaction between a

service employee and a customer is not limited to the duration for which a customer and service employee are interacting FtF, as for an offline retailer. E-retailers can initiate a dialogue whenever they believe that such a dialogue can improve customer relationships.

Personalization, relationship quality and service quality

Personalization in this work concerns the manner in which e-service employees relate to customers, which can range from people-cold and impersonal at the one end of the spectrum to warm, friendly and personal at the other (Mittal & Lassar, 1996). Personalization differs from one-to-one customization and responsiveness, both of which can be provided impersonally. An e-service employee can be quite responsive, attending to customer needs promptly and dutifully but mechanically. On the other hand, an e-service employee can be warm and friendly yet ignore task imperatives of responsiveness. Thus, task, i.e., the nonsocial component of interpersonal interaction, may or may not accompany any display of social dialogue.

The prior literature on services marketing has recognized the influence of interpersonal interaction on customer satisfaction (Crosby *et al.*, 1990; Kandampully, 1998; Solomon *et al.*, 1985). Bitner *et al.* (1994) stated that "in service settings, customer satisfaction is often influenced by the quality of the interpersonal interaction between the customer and the contact employee." Adelman *et al.* (1994) catalogued

the variety of support outcomes that can be produced by positive social interactions between service providers and customers. These support outcomes can range from alleviation of mild boredom to venting of anxiety or personal thoughts, confirmation of personal opinions, receiving comfort to alleviate grief, or simply enjoying the satisfaction of being liked.

Researchers have recognized the importance of personalization in offline retailing, but not in e-retailing. If romance and friendship between two individuals and social support in a community can happen on the Internet (Hagel & Armstrong, 1997; Godwin, 1994), there is no reason why personal warmth, politeness, and friendly conversations and various support outcomes such as venting of anxiety or personal thoughts, confirmation of personal opinions, receiving comfort in response to grief, or the satisfaction of being liked, as discussed by Adelman et al. (1994), cannot exist between a service employee and a customer on the Internet. However, in the literature, customization continues to dominate Internet personalization, i.e., the one-to-one targeting/marketing perspective (e.g., Peppers & Rogers, 1993). Personalization thus is often perceived to indicate any form of customization, which is option personalization, just one of the three forms of personalization discussed by Suprenant & Solomon (1987). After reviewing more than 30 e-marketing tools and terms, Kalyanam & Shelby (2002) indicated that the terms personalization and targeting

marketing were sometimes used interchangeably. Recently, Parasuraman *et al.* (2005) also identified the personalization/customization dimension (how much and how easily the site can be tailored to individual customers' preferences, histories, and ways of shopping) for measuring website e-service quality (E-S-QUAL). Zviran *et al.* (2006) examined user satisfaction from commercial web sites. The social dimension of customer relationships on the Internet was neglected.

The current practice of relationship marketing on the Internet tends to be task-oriented, and lacks social contents. For example, when shipping an order, most e-retailers send the customer an email reading something like the following: "Greetings from xxx (company name). We thought you would like to know that we shipped your items today, and that this completes your order. Thanks for shopping at xxx, and we hope to see you again soon." Many e-retailers do not even bother to address the customer by name. If the items are returned to the e-retailer for some unforeseen reason such as a misspelled delivery address, the e-retailer often simply credits the account of the customer. Some e-retailers do not even send the customer an email to ask whether the customer still wants the items and where the customer wants the items to be sent to. If a customer sends an email to ask the e-retailer why delivery of the items has taken longer than was promised on their Website, the e-retailer may respond by telling the customer that he/she can cancel the order. Such an answer does

little to cultivate customer relationships since customers already know that they can cancel orders anytime. The customer may merely want a friendly explanation, which, if done properly by the e-retailer, can enhance customer understanding of the operation of the retailer. Such understanding may in turn improve the relationships between the customer and the e-retailer. In an email, a few lines of social interaction such as small talk, assuring the customer that e-service employees are standing by to respond to requests and to solve problems regarding the fulfillment of the order can be of significant assistance in improving e-service.

H1: Compared with emails that lack personalized social content, emails containing personalized social contents result in perceptions of higher relationship quality, service quality and loyalty.

Men are typically considered aggressive, competitive, assertive, individualistic, stoic, task-oriented and focused on material success. Women are considered nurturing, kind, talkative, warm, emotional, and concerned with the quality of life (Eagly *et al.*, 2000; Gefen & Straub, 1997; Tannen, 1994). Phillip & Suri (2004) found that women favor emails as a means of building social contacts more than men do. Therefore, this study expects women to be more easily satisfied with emails with a social content.

Palmer & Bejou (1995) examined the effects of gender dyad on relationships between clients and financial advisers. Their study examined the customer orientation

and selling orientation of financial advisers as perceived by customers. They found that the mean value of perceived customer orientation is highest in the female-female dyad, followed by the male seller-female buyer dyad, while the lowest mean score for perceived customer orientation occurred in male customers of female sales personnel. These results suggest that females appreciate salesperson customer-orientation more than males do.

Compared with men, women have a lower threshold for elaborating on message cues, and their judgments reflect greater consideration of the message cues. Moreover, women evoked a greater number of thoughts about the judgment-relevant cues and more readily accessed such thoughts than did men (Meyers-Levy & Sternthal, 1991). Thus, personal touch is likely to be more effective for females than for males, leading to variation in the subsequent purchase intentions of males and females.

H2: Personalized social content in emails enhance relationship quality more for female customers than male customers

Conceptual Model

Researchers distinguish between two constructs, satisfaction and service quality.

Satisfaction refers to customer evaluations of a specific transaction. Customers reach satisfaction decisions by comparing product or service performance with prior expectations about how the product or service would or should perform. In contrast,

service quality corresponds to a global evaluation of the service, rather than to an evaluation of a specific transaction (Binter, 1990; Bolton & Drew, 1991). Thus, satisfaction should lead to perceived service quality, not the opposite. Since satisfaction is a dimension of relationship quality, as will be discussed later, relationship quality would lead to service quality. Brady & Cronin (2001) suggested a new framework of service quality, in which interaction quality lead to service quality, consistent with the view that relationship quality, which concerns the interaction between customers and the company, leads to service quality.

Based on the above literature reviewed, a conceptual model is presented, positing that personalization of email will enhance relationship quality, thus improving service quality and ultimately engendering loyalty. Figure 1 exhibits the conceptual model that links email personalization to relationship quality, service quality and in turn to loyalty. Personalization of email and gender are the treatments in the experiment discussed in the following section. Personalization of email and the interaction between personalization of email and gender are dummy variables in the model. The model is tested using structural equation modeling. The advantages of using structural equation modeling with latent variables in experimental research include the ability to control for measurement error and enhanced ability to test the effects of experimental manipulations. For further details, please see MacKenzie (2001).

Please Insert Fig. 1 Here

Methodology

Research design

Data were gathered using a scenario-based experiment. Weiner (2000) supported the use of scenarios to examine service encounters because scenarios "permit examination of the variable of most concern and often allow the best theory testing by enabling the investigator to gather all the needed responses." The scenarios and elements embedded in emails were constructed to manipulate the personalization level.

The experimental design comprises two groups: the impersonal group and the personalized group. Subjects in the impersonal group received emails similar to emails one would receive when purchasing books online. Subjects in the personalized group received emails that could be characterized as more friendly, polite, and warm, closer to emails from a friend or a personal hairdresser. Since a personalized service is likely to send more emails to their customers than an impersonalized service, subjects in the personalized group received more emails than subjects in the impersonal group.

The scenario

Elements of emails, including greetings, the identity of the sender, social chat and the occasions for sending emails, such as sending a birthday e-card or not, were manipulated to provide the emails with a particular level of personalization. Online book purchase was selected as the scenario in this study. Since book purchases are not dominated by either sex, consumers would not have strong, uniform service employee gender stereotypes which may influence their preferences and perceptions of service employees. Additionally, online book purchase is popular among Internet users.

According to a report from the Institute for Information Industry of Taiwan, 47.9% of online shoppers purchased books in 2005. Moreover, online book purchasing has been a popular topic of academic research (Evanschitzky *et al.*, 2004). Travel books are chosen for the current study because they are commonly bought on the Internet and are familiar to study subjects. Again, purchasing a travel book is gender neutral.

The study scenario assumes that the respondents purchase a travel-related book from an online bookstore. For the transaction, the retailer sends the respondents several emails. Upon purchase of the book, the e-retailer sends a confirmation email indicating that the order has been received and thanking the customer (order confirmation). At the time of shipping, the e-retailer sends an email telling the customer that the product has been shipped (shipping confirmation). The scenario also

includes an occasion on which the ordered book cannot be shipped according to the promised schedule, and so the e-retailer sends an email to the customer telling them that the book will be shipped late (notification of late shipment). In another situation, the customer ordered a book as a gift for a distant friend. Since the customer misspelled the shipping address, the book was returned to the e-retailer. Standard practice for some e-retailers in this situation is to simply credit the account of the customer without notifying them. Alternatively, the e-retailer can send an email notifying the customer of the situation and asking the customer what they would like to do with the book (notification of non-delivery). Without an email notification, the customer may think that his friend have received and enjoyed reading the book and only much later discover that the e-retailer has credited his account. A final situation involves the e-retailer sending a birthday e-card to the customer wishing him a happy birthday.

Thus, in the online shopping scenario considered, the e-retailer can send five different types of emails to customers: order confirmation, shipment confirmation, notification of late delivery, notification of non-delivery and birthday e-card. For the impersonal level, the e-retailer sends only three emails, i.e., order confirmation, shipment confirmation, and notification of late delivery. For the personalized level, the e-retailer sends all five emails.

Email Contents

Currently, most emails sent by e-retailers to their customers are impersonal. The absence of two important elements makes emails impersonal: a salutation without the name of the recipient and a closing without the name of the service employee. In the present experiment all the impersonal salutations were represented with "Dear Valued Customer" accompanied by the impersonal closings "Best regards, the company's name." Furthermore, the emails included no social interaction.

Emails that attempt to establish personalized relationships with customers can be characterized as more similar to emails sent by a friend. Commercial friendship does exist between customers and their hairstylists (Price & Arnould, 1999). There is no reason why an e-retailer, when communicating with a customer via the Internet, cannot be as friendly, or even friendlier than the employee of an offline retailer.

Personalized emails differ from the impersonal ones in several aspects. First, personalized emails use the name of the recipient name in the initial salutation.

Second, the title and name of the service representative are provided, which conveys an impression of personal attention. In personalized situations, the consumer knows the individual who is providing them with services. Moreover, every time the e-retailer sends an email to the customer, the email is always sent by the same service employee. Third, some social conversation is included in emails where appropriate;

for example, a brief explanation is provided as to why the product is in short supply, such as the author suddenly became very popular because the author just won an award, and thus will be shipped late. Fourth, a drawback of shopping online as perceived by consumers is that there is no one to whom questions can be addressed in the event of a problem. Thus, in their emails the service representative always reminds the customer that there is a real human being on the other end of the Internet connection who is ready to help. The purpose is to make the consumers feel that they have received personal attention from the service employee, rather than just receiving a task-oriented email generated by the software of the company. Fifth, in the personalized condition, the service representative also sends a birthday e-card to the customer.

Subjects and Procedure

Boyer et al. (2002) indicated that print surveys are generally comparable to electronic surveys. In the present case, a print survey is easier and faster to conduct than an electronic survey. Emails in the questionnaires were produced in color to make them resemble the emails respondents would see on a computer screen. The contents of the emails were first place in Microsoft Outlook and displayed on the screen. The screens were then captured and reproduced in the questionnaire.

A sample of 268 students at a university in northern Taiwan participated in the

experiment either in the class or in the dormitory lobby. To motivate participation in the study, each respondent was given a pack of fresh fruit juice, an appropriate incentive given that the survey was conducted during the hot summer period. Of the 268 questionnaires distributed, 254 complete and usable questionnaires were returned, representing a 94.7% response rate. The impersonal group consisted of 125 respondents, of which 65 are males and 60 are females. The personalized group consists of 129 respondents, including 72 males and 57 females. Among the respondents, 96% of them aged between 19 and 25 years old. Because the university has high speed connections in every room of the dormitories, three-quarters of respondents listed surfing the net as their most popular leisure activities.

Participants were randomly assigned to one of the two experimental groups.

Prior to giving a questionnaire to the respondents in the personalized group, the respondents were asked to indicate their gender preferences for their online service employee. Respondents were then given a questionnaire in which the service employee was of the indicated gender. Respondents first read a short description of an online book purchase scenario followed by email service from the e-retailer. After reading the scenarios and the associated emails, respondents were asked to complete the questionnaire.

Measures

The questionnaire consisted of two sections. Section one explained the scenario and showed the emails, while section two comprised of measurement items, including items for manipulation check, and items for measuring relationship quality, service quality, and loyalty.

Roberts et al. (2003) suggested that relationship quality comprises trust, satisfaction, commitment and affective conflict. Trust encompasses two essential elements (Kumar et al., 1995). The first element is trust in the honesty of the company, namely the belief that the company stands by its word, fulfills promised role obligations, and is sincere. The second is trust in the benevolence of the partner, namely the belief that the company is interested in the customer welfare. Items for measuring trust were taken from Swan et al. (1985), Crosby et al. (1990), and Roberts et al. (2003). Satisfaction is the summary measure that provides an evaluation of the quality of all past interactions with the service provider (Crosby et al., 1990). Items for measuring satisfaction were taken from Crosby et al. (1990) and Roberts et al. (2003). Commitment indicates an enduring desire to maintain a valued relationship (Moorman et al., 1992). Items for measuring commitment were taken from Bove & Johnson (2001). Conflict, a negative indicator of relationship quality, was defined as

hostility, frustration and anger towards the company (Kumar *et al.*, 1995). Items for measuring conflict were obtained from Kumar *et al.* (1995).

Although SERVQUAL (Parasuraman *et al.*, 1988) is a widely used measure of service quality, Mittal & Lassar (1996) showed that personalization significantly influences customer experience and evaluation of service. Thus, the service quality indicators developed by Mittal & Lassar (1996) provide a basis for evaluating the influence of service-enhancing factors in this study. Of the four service quality dimensions proposed by Mittal & Lassar (1996), three are included in this study: reliability, responsiveness, and personalization. The other dimension, tangibility, was excluded because subjects had no basis for evaluating the physical environment.

Service quality has been shown to influence consumer loyalty. Items for measuring consumer loyalty were adapted from Zeithaml *et al.* (1996). Furthermore, as most online stores strive for closer communication with virtual customers, two more additional items were supplemented: the first was the item for measuring consumer willingness to share information with the firm, while the other was the measure of consumer willingness to test new services developed by the firm (Roberts *et al.*, 2003).

All items were translated into Mandarin and then back translated to ensure the accuracy of the translation. All items were measured with a seven-point Likert scale, with -3 indicating strongly disagree and +3 indicating strongly agree.

Results

Manipulation Check

The impersonalized and the personalized groups were presented with different types and numbers of emails to manipulate different degrees of personalization.

Provided the manipulation was successful, respondents in the two groups should have different perceptions of email as a medium. Three items: unsociable – sociable, insensitive – sensitive, cold – warm, which were taken from Short *et al.* (1976) and directly related to personalization as defined in this work, were used to check the manipulation.

The results of manipulation check show that respondents who receive different emails perceive the email medium differently. Compared with respondents in the impersonal group, respondents in the personalized group considered email to be more sociable (on a scale from -3 to 3, mean = -0.10, s.d. = 1.27 vs. mean = 0.26, s.d. = 1.42, t = 2.13, p = .035), more sensitive (mean = -0.23, s.d. = 1.46 vs. mean = 0.54, s.d. = 1.54, t = 4.62, p = .000), and warmer (mean = -0.71, s.d. = 1.54 vs. mean = 0.29,

s.d. = 1.56, t = 5.06, p = .000). Thus, properly composed emails can be sociable, sensitive and warm.

Scale Purification

The scales were taken from previous studies to ensure reliability and validity. However, as Nunnally (1978) noted, one validates not a measuring instrument but rather some use to which the instrument is put. The instruments still need to be purified and validated since the items are used in a culture different from that in which the items originated. Furthermore, the online environment differs from the offline environments.

Instrument purification began with the computation of coefficient alpha (Churchill, 1979). The values of the coefficient alpha ranged from 0.81 to .93 across the dimensions of relationship quality, service quality and loyalty. Despite reasonably high alpha values when the scales were treated unidimensionally, each of the scales was factor analyzed. Items with a factor loading below 0.5 and a low item-to-total correlation were deleted. Table 1 lists the final scales for measuring relationship quality, service quality and loyalty, along with Cronbach alpha and AVE (average variance extracted) (Fornell & Larcker, 1981).

Please Insert Table 1 Here

Convergent and Discriminant validity

The last column of Table 1 shows that all measures meet the criterion of Fornell and Larcker (1981) (AVE > 0.5). Since this criterion is conservative, the results show that the measures have good convergent validity.

Since relationship quality and service quality are closely related, discriminant validity has to be established to ensure that relationship quality and service quality are distinct. The model shown in Fig. 2 was estimated. The model illustrated in Fig. 2 had good fit with AGFI (adjusted goodness of fit index) of 0.93 and CFI (comparative fit index) of 0.99, both exceeding the recommended value of 0.9. The Chi-square value of the model fit is 23.04 with 13 degrees of freedom and p = .041. Two tests can be employed to check the discriminant validity of the relationship quality and the service quality scales. First, the latent correlation between relationship quality and service quality is 0.96 with a standard deviation of 0.1. Since the 95% confidence interval of the correlation does not include 1 (0.94 to .98), the two constructs are different and significantly so. Second, a nested model was tested constraining the latent correlation between relationship quality and service quality to 1. The Chi-square value of the model fit increased to 33.96 with 14 degrees of freedom, p = .0019. The increase of Chi-square value of 10.92 with 1 degree of freedom (p < .001) indicates a significant

loss in model fit. Thus, the two tests demonstrate that relationship quality and service quality are two distinct constructs.

Please Insert Fig. 2 Here

The Model

The model in Fig. 1 was estimated by reducing the second order models of relationship quality and service quality to first order models by averaging the items measuring each of the dimensions of relationship and service quality. This averaging was made possible by the unidimensionality of the sub-scales (Anderson & Gerbing, 1998). Table 2 lists the covariance matrix of the indicators, along with their means and standard deviations, which were used to estimate the structural model.

Please Insert Table 2 Here

Model parameters were estimated using the LISREL 8.30 program to test the fit between the data and the proposed conceptual model. Table 3 presents equations representing relationships among constructs. The results of the estimation show that Chi-square = 76.33 with 51 degrees of freedom (p = .012). Since Chi-square is affected by the large sample size, Chi-square/df = 1.50, which is less than 2, indicating that the model is acceptable. The Root Mean Square Error of

Approximation (RMSEA) = 0.044, and the p-value for test of close fit (RMSEA < .05) = .67. Since RMSEA is less than 0.05 and the p-value for test of close fit exceeds 0.5, the data fit the model well. Other goodness of fit statistics, standardized root mean square residual = 0.024 (< 0.05), GFI = .95 (> 0.9), AGFI = 0.93 (> 0.9), all indicate good fit between the data and the model.

Please Insert Table 3 Here

Personalization of email significantly affects relationship quality ($\gamma_{11} = .87$, t = 6.45). Relationship quality also significantly affects service quality ($\beta_{21} = 0.97$, t = 5.81). Finally, service quality significantly affects loyalty ($\beta_{32} = 0.88$, t = 5.47). Thus, personalization of email results in perceptions of higher relationship quality, service quality and loyalty, supporting H1.

The interaction effect of the personalization of email and gender on relationship quality is also significant, though to a lesser degree ($\gamma_{12} = 0.39$, t = 2.53). Male gender was coded as 0, while female gender was coded as 1. Moreover, the group of impersonal email was coded as 0, while the group of personalized email was coded as 1. The interaction between personalization of emails and gender positively affects relationship quality, indicating that personalization of emails enhance relationship quality more for female than for male respondents. Thus, H2 is supported.

Discussions and Implications

Email is a valuable vehicle for enhancing relationships between a company and its customers, but the role of emails in this area has been neglected by both academic researchers and practitioners. This study shows that emails can effectively enhance relationship quality, service quality and loyalty. These results indicate potential areas for future study. While retail service encounters have received considerable attention, online interactions between e-retailers and their customers have been relatively neglected. Previous studies of retail service encounters should be extended to include e-retail service encounter. Furthermore, social benefits should also be included in examining the benefits which e-customers in long-term relationships experience.

Though highly correlated, relationship quality and service quality are different constructs. In the proposed model, personalization of email influences relationship quality, which in turn influences service quality, and finally loyalty. Some researchers (e.g., Crosby $et\ al.$, 1990; Roberts $et\ al.$, 2003) argued that the service quality influences relationship quality, rather than the other way around. However, the model fit indices show poor fit if the data fits a model in which service quality influences relationship quality (Chi-square = 86.09, RMSEA = .051, p-value for test of close fit (RMSEA < .05) = .45). The data also show that relationship quality fully mediates the relationship between personalization of email and service quality. Moreover, service

quality fully mediates the relationship between relationship quality and loyalty. Thus, a company can build loyal customers only through building good relationships, which in turn enhance perceived service quality, leading to high loyalty.

In the experiment conducted here, the emails sent to the two experimental groups differed in whether the emails address the recipient by name, include social chat, identify the sender, and whether a birthday e-card is sent. Not included in the experiment is customized personalization, i.e., advising customers on the best form of service, such as advising the best bank account to use or recommending books based on customer interests as determined by their previous purchase. Future studies can examine the impacts of customized personalization on relationship quality, service quality and loyalty. It is likely that some customers prefer to have customized personalization while others prefer not to have. Again, asking customers to make a choice would provide an appropriate means of segmenting the customers.

Nowadays a lot of emails sent by companies to their customers are composed by software engineers and generated by software in response to an event. The emails accomplish their purpose of sending a message to a customer. However, these types of emails are inadequate for a company that wishes to build good customer relationships. Personalized emails that contain the name of the receipt, a few lines of chat, and the name of the service employee can still be generated by software.

Reusable email contents, like reusable software components, can be composed and reused. Thus, sending personalized emails cost little more than sending impersonal emails. However, their impacts differ significantly. Thus, it is definitely worthwhile for companies to personalize their emails.

As predicted, females appreciate their relationship with a company more than males do. E-retailers thus should pay extra attention to enhancing relationships with female customers. Since females differ from males in communication style, to maximize the effectiveness of email communication with customers, emails to females may be different from those to males; for example, emails to females may be longer and more frequent than emails to males.

Conclusions

Email is an effective tool for offering social benefits to customers in a relationship between an e-retailer and its customers. However, in their dealing with customers, most firms currently consider email simple as a task-oriented communication medium, neglecting its power in building customer relationships.

From a customer perspective, online shopping thus does not differ significantly from buying products from a vending machine, completely lack of human touch. However, online shopping does not have to be this way. This work demonstrates that emails containing appropriate social content can enhance relationship quality, improve

service quality and engender customer loyalty. Since few e-retailers practice personalized service, e-retailers who do so can stand out and benefit from improved customer loyalty.

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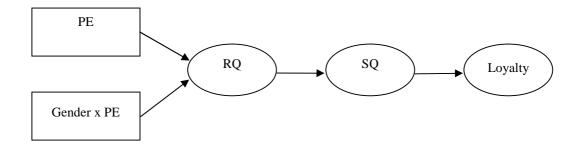
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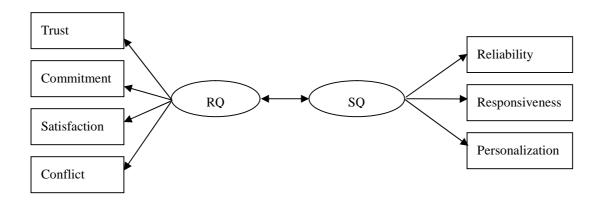


PE = Personalization of email

RQ = Relationship Quality

SQ = Service Quality

Fig. 1. Conceptual Model



Trust= Trust in Integrity Honesty

Commitment = Affective Commitment

Conflict= Affective Conflict

RQ=Relationship Quality

SQ=Service Quality

Fig. 2. Confirmatory factor analysis model for testing discriminant validity

Table 1

Items for measuring relationship quality, service quality and loyalty and item quality

Items	Cronbach	AVE ^a	
	Alpha		
Relationship Quality			
Trust in Integrity Honesty	0.91	0.77	
1. My service provider is honest about problems.			
2. My service provider has high integrity.			
3. My service provider is trustworthy.			
Affective Commitment	0.86	0.76	
1. I continue to deal with my service provider			
because I like being associated with them.			
2. I continue to deal with my service provider			
because I genuinely enjoy my relationship with			
them.			
Satisfaction	0.92	0.86	
1. I am happy with the performance of my service			
provider.			
2. I am content with the performance of my service			
provider.			
Affective Conflict	0.92	0.79	
1. I am angry with my service provider.			
2. I am frustrated with my service provider.			
3. I am annoyed with my service provider.			
Service Quality			
Reliability	0.87	0.70	
1. My service provider can provide the promised			
service dependably.			
2. My service provider can perform the promised			
service accurately.			
3. My service provider can perform the service right			
the first time.			
Responsiveness	0.89	0.73	
1. My service provider is willing to help customers.			
2. My service provider gives me prompt service			
3. My service provider is always ready to respond to			
your request.			

Personalization	0.95	0.80
1. My service provider is polite and courteous.		
2. My service provider display personal warmth		
3. My service provider gives customers individual attention		
4. My service provider is friendly and pleasant.		
5. My service provider takes the time to know me personally.		
Loyalty	0.92	0.81
1. If I had to purchase similar products in the future,		
I would like to purchase them from this service provider.		
2. I regularly consider purchasing additional		
services from this service provider.		
3. I will consider testing new products or services		
recommended by this service provider.		

Note: ^a Fornell and Larcker (1981)

Table 2 Covariance matrix for analyzing the conceptual model

		1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Personalization of email	0.251	-0.010	0.111	0.252	0.233	0.319	-0.296	0.210	0.221	0.300	0.253	0.224	0.227
2.	Gender	-0.010	0.249	0.122	0.033	0.056	0.069	-0.009	0.034	0.051	0.060	0.055	0.044	0.061
3.	Interaction of PE and Gender	0.111	0.122	0.175	0.139	0.160	0.209	-0.150	0.143	0.143	0.184	0.155	0.152	0.153
4.	Honesty	0.252	0.033	0.139	1.359	1.010	1.187	-0.883	0.896	0.877	1.027	0.893	0.765	0.884
5.	Commitment	0.233	0.056	0.160	1.010	1.247	1.172	-0.899	0.891	0.851	1.010	0.959	0.826	0.923
6.	Satisfaction	0.319	0.069	0.209	1.187	1.172	1.664	-1.121	1.021	0.961	1.225	1.115	1.007	1.036
7.	Conflict	-0.296	-0.009	-0.150	-0.883	-0.899	-1.121	1.671	-0.735	-0.752	-0.948	-0.897	-0.731	-0.833
8.	Reliability	0.210	0.034	0.143	0.896	0.891	1.021	-0.735	1.230	0.844	0.913	0.914	0.786	0.840
9.	Responsiveness	0.221	0.051	0.143	0.877	0.851	0.961	-0.752	0.844	1.149	0.957	0.831	0.740	0.824
10.	Personalization	0.300	0.060	0.184	1.027	1.010	1.225	-0.948	0.913	0.957	1.381	1.025	0.888	0.979
11.	Loyalty1	0.253	0.055	0.155	0.893	0.959	1.115	-0.897	0.914	0.831	1.025	1.345	1.117	1.113
12.	Loyalty2	0.224	0.044	0.152	0.765	0.826	1.007	-0.731	0.786	0.740	0.888	1.117	1.295	1.043
13.	Loyalty3	0.227	0.061	0.153	0.884	0.923	1.036	-0.833	0.840	0.824	0.979	1.113	1.043	1.415
Me	ean	0.508	0.461	0.224	1.358	0.931	1.030	-1.000	0.980	1.018	1.057	1.240	1.220	1.252
Sta	ndard Deviation	0.501	0.499	0.418	1.166	1.117	1.290	1.293	1.109	1.072	1.175	1.160	1.138	1.189

Note: Personalization of email is coded as 0 for the impersonal group and 1 for the personalization group

Gender is coded as 0 for male and 1 for female

Interaction of PE and Gender is the product of personalization of email and gender

Table 3
Equations representing relationships among constructs

$$RQ = 0.87 * PE + 0.39 * (PE x Gender)^{a} \qquad R^{2} = 0.29$$

$$(0.14)^{b} \qquad (0.16)$$

$$6.45^{**} \qquad 2.53^{**}$$

$$SQ = 0.97 * RQ$$

$$(0.17)$$

$$5.81^{**}$$

$$Loyalty = 0.88 * SQ$$

$$(0.16)$$

$$5.47^{**}$$

$$R^{2} = 0.29$$

$$R^{2} = 0.93$$

$$R^{2} = 0.77$$

Note: ^a(PE x Gender) represents the interaction of personalization of email and gender.

^bThe number in parenthesis represents the standard deviation.

^{**}t value, significant at the .01 probability level.