



Relationship Marketing's Impact on Relationship Quality and E-Loyalty

Nan-Hong Lin^{a,*} I-Chun Chung^b

^a Department of Business Management, Tatung University

^b Graduate School of Business Management, Tatung University

Abstract

This study suggests the way to build long-term relationships with customers in a virtual environment, including providing the relationship among relational bonds, relationship quality, and e-loyalty, while determining which bonding strategies lead to higher relationship quality in different products. The results suggest that all three relational bonds have positive impacts on relationship quality across three categories while relationship quality has a positive impact on e-loyalty. Besides, financial bonds are more powerful in affecting relationship quality and e-loyalty for search goods/services than for experience and credence goods/services. Social bonds are more important for experience and credence goods/services than for search goods/services in the impact on relationship quality while structural bonds influence relationship quality more greatly for credence goods/services than for search and experience goods/services.

Keywords: relationship marketing, relationship quality, e-loyalty

關係行銷對關係品質及網路忠誠度的影響

林南宏^a 鍾怡君^b

^a 大同大學事業經營系 ^b 大同大學事業經營研究所

摘要

本研究提出在虛擬環境中與顧客建立長期關係的方法，包括提供關係結合方式，關係品質，和網路忠誠度之間的關係，同時也決定在不同的產品類型下那種關係結合的方式會導至較高的關係品質。研究結果顯示，所有三種關係結合方式不管是在那一種產品類型下對於關係品質都有正向影響。財務性結合方式對於關係品質及網路忠誠度的影響，在搜尋型產品中會比在經驗型和信任型產品影響來得大；社會性結合對於

* Corresponding author E-mail: nhlin@ttu.edu.tw



關係品質的影響，在經驗型和信任型產品中會比在搜尋型產品影響要大；結構性結合對關係品質的影響裡，在信任型產品裡的影響，會比在經驗型和信任型產品中的影響來得大。此外，若商家能與顧客擁有較好的關係品質，將會導致較高的網路忠誠度。

關鍵詞：關係行銷、關係品質、網路忠誠度

1. Introduction

The popularity of the Internet, in addition to the enacting of the regulations related to the security of its use as well as the undertaking of supportive activities for cash flows and logistics, builds up consumers' trust in, and arouses their desire to shop over, it. With the emergence of the e-commerce, the Web offers great potential for building customer relationships (Aladwani, 2001). For example, to enhance social bonds, one dimension of relationship marketing, many e-tailers have created their own community for users who are willing to share knowledge and tips on the company's Web site. However, because Internet shoppers can search and compare offerings worldwide at little or no cost, the Internet is close to a perfect market (Srinivasan et al., 2002), which means that suppliers are more challenged in their attempts to build long-term relationships with customers (Hsieh et al., 2005).

Relationship marketing, which focuses on approaches to building, developing, and maintaining successful relational exchanges (Grönroos, 1994; Morgan and Hunt, 1994), is changing marketing orientation from attracting short-term, discrete transactions to retaining long-lasting, intimate customer relationships. Morgan and Hunt (1994) thought that relationship quality is the key point of successful relationship marketing strategy. Palmatier et al. (2006) observed that most previous research has conceptualized the effects of relationship marketing on outcomes as fully mediated by one or more of the relational constructs of trust, commitment, relationship satisfaction, and/or relationship quality. Therefore, businesses that develop relationship marketing strategy should care about relationship quality to retain customers.

The growing marketing on the Web gives variety to categories of products and services. Goods/services form a continuum of search, experience, or credence attributes, based on the way customers evaluate the goods/services (Brush and Artz, 1999; Ostrom



and Iacobucci, 1995). How e-tailers selling different goods/services implement effective relationship marketing strategies to sustain loyal customers in a fiercely competitive on-line market is an important issue to ponder.

Most previous studies on relationship marketing and relationship quality focus on physical contexts (e.g., Mitra et al., 1999; Parsons, 2002; Reynolds and Beatty, 1999; Smith, 1998). And, although the importance of the Internet has been well documented, those challenges encountered by e-tailers attempting to build both long-term relationships with customers and other aspects of Internet-enabled relationships have not been empirically explored to a sufficient degree (Thorbjørnsen et al., 2002). With the growing market of e-commerce in recent years, virtual Internet contexts warrant efforts to explore how the relational bonds impact e-loyalty across different Internet products with relationship quality as a mediator. In other words, the purpose of this study is to decide, in on-line shopping context, which mode of relationship marketing affects relationship quality and e-loyalty most under diverse Internet-based products. In addition, the effect of relationship marketing on e-loyalty mediated by relationship quality is also discussed.

2. Theoretical Background and Hypotheses Development

2.1 Relationship Marketing

In the marketplace the concept of relationship has attracted much attention, and this concept has met with enthusiastic support from both academicians and practitioners (Reynolds and Arnold, 2000). Relationship marketing, both in business practice and as a focus of academic research, has “experienced explosive growth” in the past decade (Srinivasan and Moorman, 2005). Relationship marketing, aside from placing emphasis on meeting customers’ needs, focuses on ways to build, develop, and maintain successful relational exchanges (Mitra et al., 1999; Reynolds and Beatty, 1999).

Berry (1983) formally introduced the concept of relationship marketing and defined it as attracting, maintaining, and enhancing customer relationships. According to Berry and Parasuraman (1991), relationship marketing was what service organizations used to attract, maintain, and strengthen the relationship between customers and retailers. After a comprehensive review of 26 definitions of relationship marketing, Harker (1999) proposed the following description: An organization engaged in proactively creating, developing, and maintaining committed, interactive, and profitable exchanges with selected customers



over time is engaged in relationship marketing.

Although varying to some extent from each other, the preceding definitions all indicate that relationship marketing focuses on individual buyer-seller relationships, that the relationships are longitudinal in nature, and that both parties in each individual buyer-seller relationship benefit. By building and maintaining customer relationships, the selling partner can achieve higher financial performance as well as win customer trust, commitment, and satisfaction (Hsieh et al., 2002).

2.2 Relational Bonds

Bonds are the psychological, emotional, economic, or physical attachments in a relationship arising from association and interaction and bind parties together in a relational exchange (McCall, 1970).

While Wilson (1995) conceptualized two types of bonds—structural and social, Smith (1998) added that functional bonds also serve to bind parties to a relationship. Moreover, Berry and Parasuraman (1991) divided the way retailers stimulate customer behavioral loyalty into three levels: financial, social, and structural bonding tactics. However, Berry (1995) argued that “at level three, the solution to the customer’s problem is designed into the service delivery system rather than depending upon the relationship-building skills.” Based on this argument, De Wulf et al. (2001) eliminated structural bonding tactics and redefined relationship marketing by changing the level one to tangible rewards and the level two to direct mail, preferential treatment and interpersonal communication. However, the majority of authors still adhere to Berry and Parasuraman’s definition of relationship bonding, considering it the most complete and integrative (Peltier and Westfall, 2000).

- (1) **Financial Bonds:** Financial bonds enhance customer relationships through special price offers or other financial incentives to loyal customers (Berry, 1995; Strauss and Frost, 1999). These create a bond that stimulates customers’ consumption motivation and acquires their loyalty by utilizing price incentives, such as price discounts, free VIP cards, coupons, free delivery charge, and so on. With this bond being easily open to emulation by competitors, it does not necessarily become a sustained competitive advantage.
- (2) **Social Bonds:** Social bonds are personal ties that pertain to service dimensions that offer interpersonal interactions and friendships (Beatty and Lee, 1996; Wilson, 1995). Social bonding tactics are personal ties or linkages forged during interaction at work (Sharp and Sharp, 1997). Thus, e-tailers may build social bonds



with individual customers by recognizing them through e-mails personalized by name or two-way communications (Strauss and Frost, 1999). By this bond, the firm can understand what products or services customers need and want, and provide customized offerings accordingly. Thus, interdependent relationships are produced to make customers trust and feel satisfied with the firm, thus promoting relationship quality between both parties. Developing a mutual friendship has social effects and defies imitation by competitors.

- (3) Structural Bonds: The structural bonds offer target customers value-adding benefits that are difficult or expensive for customers to provide and that are not readily available elsewhere (Berry, 1995). Structural bonds are present when a business designs innovative and valuable products/services into the service-delivery system in accordance with customer needs (Lin et al., 2003). Liang et al. (2008) contended that structural bonds are knots relating to the structure, administration, and institutionalization of norms in a relationship. Hsieh et al. (2005) defined structural bonds as the value adding services that are designed into a Web site-including knowledge and information about the industry and product customization-are not readily available elsewhere, and are expensive for customers to supply if they terminate the relationship. This bond is the most valuable dimension among relationship marketing, because it offers the solution of problems to critical customers. Since structural bonds offer several valuable services to customers which competitors usually cannot offer, this bond would raise the switching cost of customers. So, even though competitors intend to imitate by investing plenty of time and money, the effort cannot pay off. Dibb and Meadows (2001) have found that investments by firms in structural bonds offer customers a more convenient and customized environment to consume services, and are seen as a key advantage over its competitors. When businesses encounter price competitions, it is better to adopt structural bonds for increasing competitiveness than social bonds.

Which types of bonds are particular salient on the Internet context? The answers may lie in Internet users' experience. Thorbjørnsen et al. (2002) concluded that customer communities (social bonds attribute) lead to stronger relationships among respondents with limited Internet experience than among respondents with extensive Internet experience. In fact, experienced Internet users are good at making use of their own knowledge and skills to search and compare offerings worldwide, so e-tailers solely adopting financial bonds



may not become favored firms for their patronage.

2.3 Relationship Quality

Crosby et al. (1990) thought that services involve variety and heterogeneity, so when customers purchase, they will often feel uneasy and uncertain. If there is a good relationship quality, it can effectively reduce uncertainty. Hennig-Thurau and Klee (1997) suggested that relationship quality is the main factor that affects customers' repurchasing behavior.

Relationship quality is viewed as one of the key indicators that measures the strength of the relationship (Garbarino and Johnson, 1999). Prior studies have revealed that relationship quality can be viewed as a higher-order construct comprising at least two dimensions: trust and satisfaction (Crosby et al., 1990). When involved in a high quality relationship, customers will be satisfied with past service performance and be able to rely on the service supplier. However, Morgan and Hunt (1994) considered commitment and trust the main variables that make relationship quality successful. Meanwhile, there are many scholars who also recognize the important role of commitment played in such a relationship (De Wulf et al., 2001; Hennig-Thurau and Klee, 1997). Thus, Smith (1998) synthesized most of the scholars' perspectives to define the measurements of relationship quality as satisfaction, trust, and commitment.

- (1) Satisfaction: According to Parsons (2002), satisfaction refers to the degree to which the performances meet customers' expectations. Previous studies about customer retention have explored satisfaction as a key determinant in customers' decisions to keep or drop a given product or service relationship (Lemon et al., 2002). Relationship satisfaction reflects exclusively the customer's satisfaction with the relationship and differs from the customer's satisfaction with the overall exchange (Palmatier et al., 2006). Because customer satisfaction is one of the primary factors leading to the continuation of relationships, the connection between the two also forms an important area of research. Bolton (1998) analyzed the duration of the customer's relationship with a continuous service provider and indicated that customer satisfaction ratings obtained prior to any decision to cancel or stay loyal to the provider are positively related to the duration of the relationship.
- (2) Trust: Drawing on literature from social psychology and marketing, trust generally is viewed as an essential ingredient for successful relationships (Berry,



1995). Moorman et al. (1993) thought that trust is a kind of willingness to rely on transaction partners, who are confident about each other. The development of trust is thought to be an important result of investing in dyadic buyer-seller relationships (Gundlach et al., 1995). Thus, trust is a central determinant to develop a higher-order relationship, especially in the initial stage of relationship development. In business studies, trust has been found to be important for building and maintaining long-term relationship (Singh and Sirdeshmukh, 2000).

- (3) Commitment: Dwyer et al. (1987) suggested that commitment is fueled by the ongoing benefits accruing to each partner. Moorman et al. (1993) also suggested that customers who are committed to a relationship might have a greater propensity to act because of their need to remain consistent to their commitment. Therefore, commitment is not only an important characteristic to maintain a fine and long-term relationship, but also an expression of willingness that customers want to stay with retailers. When the proportion of commitment becomes more remarkable, it is not difficult to infer that the relationship on both sides becomes more stable.

A school of thought suggests that the global construct of relationship quality, as reflected by a combination of commitment, trust, and satisfaction, offers the best assessment of relationship strength and provides the most insight into exchange performance (e.g., De Wulf et al., 2001; Kumar et al., 1995). Trust, satisfaction, and commitment are thus intimately interconnected in the conceptualization of relationship quality (Smith, 1998).

2.4 Types of Goods and Services

According to American Marketing Association (AMA), a product is a bundle of attributes (features, functions, benefits, and uses) capable of exchange or use; usually it embodies a mix of tangible and intangible forms. Thus a product may be an idea, a physical entity, or a service, or any combination of the three. It exists for the purpose of exchange in satisfaction of individual and organizational objectives. Occasional usage today gives a definition of a product as that bundle of attributes for which the exchange or use primarily concerns the physical or tangible form, in contrast to a service, in which the seller, buyer, or user is primarily interested in the intangible.

Recent studies (e.g., McColl-Kennedy and Fetter, 2001) acknowledge the importance of a customer's external search activities in the customer decision making process. The



services marketing literature on information asymmetry, the lack of equality in information acquired between customers and suppliers, suggests that all goods/services can be placed on a continuum ranging from “easy to evaluate” (search products) to “difficult to evaluate” (credence products) with experience products in between the two (Brush and Artz, 1999). Search goods have product attributes for which full information is acquirable before purchase (e.g., books). Experience goods/services are those that customers can evaluate after some consumption (e.g., hair salons). Credence attributes are those attributes that the consumer cannot verify even after use (e.g., psychotherapy) (Klein, 1998; Ostrom and Iacobucci, 1995).

With consumers arriving at their purchase decisions in the course of searching for product information and with the Internet and electronic marketplaces dramatically reducing the cost of obtaining information about product offerings and prices, retailers need to understand how relationship marketing strategy will influence e-loyalty across diverse Internet-based products. Thus, this study adopts forenamed classification, search-experience-credence products, as the type of Internet-based products.

2.4.1 Relational Bonds and Relationship Quality across Search-Experience-Credence Goods/Services

The main purpose of relationship marketing is to attract, maintain, and enhance customer relationships over the long haul. Satisfaction with the relationship is regarded as an important outcome of buyer-seller relationships. Gengler and Popkowski Leszczyc (1997) contended relationship marketing could enhance customer satisfaction. Moreover, De Young (1989) also discovered that the higher the firms apply structural bonds, the higher the customer satisfaction, and that different kinds and degrees of relationship bonding tactics result in different degrees of customer satisfaction. Therefore, it can be concluded that relationship marketing has positive impacts on relationship quality.

Hsieh et al.'s research (2005) discovered that the relationship between relationship bonding tactics and customer commitment will be affected by types of goods/services. Search goods/services are associated with a higher degree of standardization; therefore, customers' evaluations on this type of goods/services are based on how much expenditure they have spent (Guiltinan, 1987). For experience and credence goods/services, however, a somewhat personalized, specialized approach by the provider is in demand, as it will curtail the opportunity for customers to compare offerings on the basis of price (Brush and Artz, 1999). Meanwhile, customers would be more sensitive to the price of search



products/services than the price of experience and credence products/services. Thus, the financial bond driven by the price strategy has a greater impact on relationship quality for search goods/services than for experience and credence goods/services. Thus, this study proposes the following hypothesis:

H_{1a}: The financial bond has a greater impact on relationship quality for search goods/services than for experience and credence goods/services.

Consumers cannot pass judgement on the performance of experience and credence goods/services with ease. Although unable to recreate the most important attributes (e.g., taste) for some experience goods, a Web site can describe such attributes indirectly through the experience of other customers (Klein, 1998). To follow such an inclination, e-tailers may forge social bonds with individual customers through customer-to-customer interactions and friendships (Zeithaml and Bitner, 2000). Web-based communities, a form of social bonds, are a network of customers exchanging product information and insights with one another. In addition, e-tailers can provide online service by using queries to which customers can respond or help lines they can contact. Because repeated interactions between customers and service suppliers help customers assess service firms' credibility and benevolence (Doney and Cannon, 1997), the emotional attachment that a customer may develop for ongoing personalized communications and the community sponsored by the e-tailer makes possible inferences of the business's trustworthiness (Papadopoulou et al., 2001). Hsieh et al. (2005) also contended that social bonds incline customers toward self-disclosure, listening, and caring as well as help improve mutual understanding, openness between relationship partners, and degree of closeness, thus enhancing online shoppers' commitment. Moreover, by exerting social bonding tactics, e-tailers allow online shoppers have access to other customers' experience and friendships which facilitates their decision making when purchasing experience and credence goods/services. With interdependent relationships established, online shoppers will feel satisfied with e-tailers; thus relationship quality between both parties is further enhanced. Hence, it is posited that:

H_{1b}: The social bond has a greater impact on relationship quality for experience and credence goods/services than for search goods/services.

Credence goods/services are highly professional and associated with a high degree of variability (Zeithaml, 1981), so a customer is required to build personal data and explain his or her preferences (Guiltinan, 1987). By building the understanding of the preferences



as well as buying behaviors of those who had entered data to become Web site members, e-tailers customize their offerings accordingly (Patterson and Smith, 2003). Such a customization, being difficult or expensive for customers to provide and usually not readily available elsewhere, like personalized recommendations, is beneficial to buying those highly professional credence goods/services. When an e-tailer offers its exclusive members more useful information, the ensuing capability assessment process signals that the e-tailer is competent and trustworthy (Doney and Cannon, 1997). With regard to the differential influences of structural bonds on customer commitment, professional knowledge and information may reduce the risk encountered and bring about competitive advantage for goods/services with higher information asymmetry (Brush and Artz, 1999). Satisfaction persists as structural bonds offer the solution of problems in buying credence goods/services to critical customers. Hsieh et al. (2005) observed that Amazon.com establishes structural bonds with its customers through its customerized ordering and collaborative filtering technologies. Thus, Internet customers have realized that they will lose access to personalized offerings and any privileges granted by previous e-tailers once they defect. This leads to the following hypothesis:

H_{1c}: The structural bond has a greater impact on relationship quality for credence goods/services than for experience and search goods/services.

2.5 E-Loyalty

Early views of loyalty mainly focused on repeat purchase behavior. Jacoby and Chestnut (1978) suggested that a behavioral definition is insufficient because it does not distinguish between true loyalty and spurious loyalty that may result, for example, from a lack of available alternatives for the consumer. In response to these criticisms, researchers have proposed measuring loyalty by means of an attitudinal dimension in addition to a behavioral dimension (Lee et al., 2001; Taylor, 1998).

Out of the prosperity of e-commerce develops e-loyalty. The concept of e-loyalty extends the traditional loyalty concept to online consumer behavior. Although the underlying theoretical foundations of traditional loyalty and the newly defined phenomena of e-loyalty are generally similar, there are unique aspects of it in the area of Internet-based marketing and buyer behavior (Gommans et al., 2001). Schultz (2000) described customer/brand loyalty in cyberspace as an evolution from the traditional product driven, marketer controlled concept towards a distribution driven, consumer controlled, and technology-



facilitated concept. In her work, Smith (2001) developed five measurement questions to examine how well a Web site generates e-loyalty: (1) How often do visitors return? (2) How much time do visitors spend on a Web site? (3) What is the churn rate of return versus first-time visitors? (4) Do visitors respond or transact? (5) Do they refer friends or colleagues to a Web site? In addition, Wen (2002) thought that e-loyalty is just applying loyalty to the Internet and then compared the measurements of loyalty with e-loyalty. He indeed made some appropriate adjustments in the measurements of e-loyalty based on the nature of Web sites. However, his adjustments still have some shortcomings. For example, even if his measurements of e-loyalty showed that consumers frequent this Web site, they may just search information without placing any order with this e-tailer.

Thus, to measure e-loyalty, this study still takes readings of loyalty with some revisions in accordance with the nature of Web sites where the characteristic of interaction should be emphasized; namely, “I actively participate in the e-tailer’s Web site community” and “I actively discuss and offer my opinion on the Web site of the e-tailer.” E-loyalty is then defined here as “the strong feeling expressed by customers who have a preference for and a dependence on an e-tailer’s offers, who tend to repeat purchase and recommend the outlet, and who plan to maintain a long-term relationship with it to become its regular customers.” As was previously classified by Taylor (1998), the measurements of e-loyalty in the study contain two dimensions with some supplements in their contents. One is the behavioral dimension, including referring, repurchasing, reaccessing the Web site, and interaction, the other attitudinal dimension, including self-cognition of loyalty and endurance of transferring to others.

2.5.1 Relationship Quality and E-Loyalty

Smith (2001) suggested that the nature of e-loyalty and loyalty are the same, whether they are on-line or off-line. Success depends on the ability to humanize digital loyalty by using digital tools to build human relationship. Szymanski and Hise (2000) emphasized that e-satisfaction leads to loyalty. Berry and Parasurman (1991) also suggested that a higher degree of relational bonds leads to a higher level of relationship quality and thus leads to a higher level of loyalty. In line with this reasoning, the following is hypothesized:

H₂: A higher level of relationship quality leads to a higher level of e-loyalty.



2.5.2 Relational Bonds and E-Loyalty across Search-Experience-Credence Goods/Services

Because search goods/services are identifiable through inspection and prior to purchase, consumers' decision making is based on how much money they can save. Researchers (e.g., Gwinner et al., 1998; Peltier and Westfall, 2000) have argued that one of the motivations for engaging in relational exchanges is to save money. Thus, the e-tailor who sells search goods/services by using the financial bonds program to maintain e-loyalty should be more useful than one who sells experience and credence goods/services.

On the other hand, the performance of experience goods comes to one's knowledge only through consumption. Consumers can never be certain of the quality and value of credence goods even from ex post observation. E-tailors could use social bonds program to reduce their uncertainty and keep their customers by staying in touch with their customers and expressing their friendship, rapport, and social support (Berry, 1995; Berry and Parasurman, 1991). Providing clients with valuable solutions which are not readily available from other sources could maintain customer loyalty (Berry, 1995), because professional knowledge and information may reduce the risk encountered. Credence goods/services have characteristics that are highly professional and associated with a high degree of variability (Zeithaml, 1981). Thus structural bonds should be most useful for credence goods/services to maintain e-loyalty than other types of goods/services. The following hypotheses are postulated:

H_{3a}: The financial bond has a greater impact on e-loyalty for search goods/services than for experience and credence goods/services.

H_{3b}: The social bond has a greater impact on e-loyalty for experience and credence goods/services than for search goods/services.

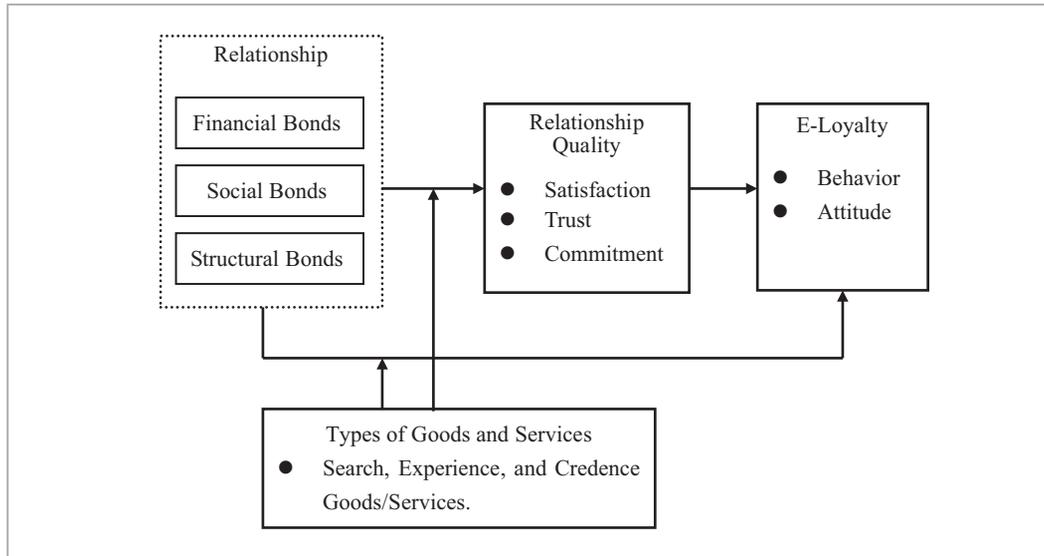
H_{3c}: The structural bond has a greater impact on e-loyalty for credence goods/services than for experience and search goods/services.

2.6 Research Framework

This study is in an attempt to discover the effect of relationship marketing on e-loyalty mediated by relationship quality across different Internet products. Thereby, three key constructs are to be examined here: relationship marketing, relationship quality, and e-loyalty. Based on items used to evaluate relationship marketing as proposed by Berry and Parasuraman (1991), relationship quality suggested by Smith (1998), and e-loyalty



advanced by Taylor (1998) with types of goods/services to serve as a moderator, the study proposes the research framework shown in Figure 1.



▲ Figure 1 Research Framework

3. Methodology

3.1 Pretest to Classify Search, Experience, and Credence Products

This study listed 20 goods/services that often appear on Web sites. Then, the study asked participants to indicate their ability, before purchase and after use, to judge the performance of each good/service using a seven-point scale. At last, participants were asked to choose the products that they had bought; this could allow the study to select appropriate products for the research. Krishnan and Hartline (2001) suggested that if the score of goods/services is high on both scales, it is a search product because it can be easily evaluated before purchase. If the goods/services scores are low on the first scale but high on the second one, it is an experience product because it cannot be easily evaluated prior to purchase but can be evaluated after consumption. Finally, if the goods/services has a low score on both scales, it is a credence product because it is difficult to evaluate even after consumption.

Questionnaires were distributed to a convenient sample in Taiwan and 60 were returned. The results show that books, computer products, and clothes can be viewed as



search products because they have relatively high mean scores on the first (5.02, 5.08, 5.2) and second (5.93, 5.83, 5.8) scales. Hotels, travel agencies, cosmetics, and on-line games are experience products because they have relatively low means on the first scale (4.5, 4.22, 4.03, 4.07) but relatively high means on the second scale (6.12, 5.75, 5.26, 5.45). Finally, Jewelry, fortune-telling, biotechnology commodities, and organic food are credence products because they have relatively low means on both the first (3.13, 3.32, 3.7, 3.7) and second (4.05, 4.15, 4.53, 4.53) scales. Therefore, this study chose these eleven products for the research.

3.2 Sample and Data Collection

To examine hypotheses, respondents were drawn from customers with online shopping experience in Taiwan. Each respondent was asked to select one of the eleven goods/services listed in the questionnaire to choose one e-tailer he or she had patronized recently, and to indicate his or her perceptions about the e-tailer. The survey instrument was designed in the form of an on-line questionnaire and put on my3q (<http://www.my3q.com>). Then the website address of the questionnaire was posted in the Q_ary board of PTT, a quite welcomed Bulletin Board System among youngsters in Taiwan, to appeal to qualified netusers to participate. In addition, my3q provides researchers with IP address-check functions to avoid double-logging its questionnaire website.

A total of 493 questionnaires were found usable in a two-month period of data collection lasting from November to December, 2009. According to the goods/services they chose, the respondents were divided into three groups. Among the 202 respondents (41%) categorized as the group of search goods/services, 78 selected books, 66 selected computer products, and 58 selected clothes. Of the 145 respondents (29.4%) identified as the group of experience goods/services, 42 selected hotels, 50 selected travel agencies, 21 selected online games, and 32 selected cosmetics. Finally, of the 146 respondents (29.6%) judged to be in the group of credence goods/services, 28 selected jewelry, 38 selected fortune-telling, 35 selected biotechnology commodities, and 45 selected organic food.

Harman's one-factor test was employed to check for the existence of common method variance in the data, in which no single, general factor was extracted (Podsakoff and Organ, 1986). In addition, the study re-estimated the structural equation model with all the indicator variables loading on an unmeasured latent method factor (MacKenzie et al., 1993). For identification purposes, it was necessary to constrain factor loadings within constructs to be equal when estimating this model. The results show that there existed



no significant individual path coefficients corresponding to relationships between the indicators and the method factor. Moreover, the overall pattern of significant relationships was not affected by common method variance (i.e., all of the paths were significant no matter whether common method variance was controlled or not). Overall, the study concludes that common method variance is not a serious concern.

To examine whether the sample was representative, this study compared the sample characteristics with a report conceived to be credible in Taiwan. According to Yam's latest 2005 survey (<http://survey.yam.com/survey2005/chart/index.php>), the sample respondents were similar in gender, age, and education to the general population of the Internet users (see Table 1). Thus, the study can be considered substantially representative.

Table 1 The Comparison of Sample Characteristics

Variables	Items	Yam's 2005 Survey in Taiwan	This Study	Chi-Square Statistics	df
Gender	Male	40.70%	43.60%	0.348 (6.635)	1
	Female	59.30%	56.40%		
Age	Under 19	5.80%	5.70%	1.345 (13.277)	4
	20-24	19.30%	17.20%		
	25-29	27.40%	27.60%		
	30-34	23.10%	21.10%		
	Over 35	24.50%	29.30%		
Education	Junior High School	1.20%	3.90%	7.979 (13.277)	4
	High School	16.60%	18.30%		
	J. College	24.10%	21.20%		
	University	40.10%	43.60%		
	Post-graduate	17.20%	12.90%		

() is the critical value as $\alpha=0.01$

3.3 Measures of the Variables

Since most of the related studies discussed relational bonds in terms of the physical environment, this study revised some items and wording in accordance with the virtual nature of the Internet after carrying out a review and generalization of relevant studies. The resulting eighteen measurement items were divided into financial (four items), social (eight items), and structural (six items) categories. Following Smith (1998), this study classified



relationship quality into three dimensions—satisfaction, trust and commitment. After a review and rewording of the scales developed by related scholars, eight measurement items were achieved for satisfaction (two items), commitment (four items), and trust (two items). As the aforementioned, this study still takes readings of loyalty with some revisions in consideration of the nature of Web sites in order to measure e-loyalty. After referring to the works of related researchers, this study produced nine measurement items for attitudinal (three items) and behavioral (six items) dimensions.

All measures employed seven-point scales ranging from 1 (extremely disagree) to 7 (extremely agree). The instruments (see Table 2) were refined through a pilot session after five online shoppers filled out the questionnaire, checking if there were any unclear or misleading questions.

▼ Table 2 Measurement Instruments

Constructs	Dimensions	Items in the questionnaire	Sources
Relationship Marketing	Financial Bonds	I can receive presents when I join the loyalty program. The e-tailer offers discounts to encourage future purchasing. The more the amount of money, the more the discount I would receive. The e-tailer provides cumulative points programs.	Berry (1995), Hsieh et al. (2005), and Peltier and Westfall (2000)
	Social Bonds	The e-tailer is my friend. I can communicate with other customers through the e-tailer. I receive special treatment after I become a member of the e-tailer. The communities sponsored by the e-tailer provide me product information. The e-tailer is concerned with my needs. The e-tailer gathers my opinions about services. The e-tailer sends me greeting cards or gifts on special days. I can share my opinions on the Web site.	
	Structural Bonds	I can order customized services or products from the e-tailer. The e-tailer provides after-sales service according to my requirements. The e-tailer provides full knowledge about the goods/services. The e-tailer integrates products or services from other sources to solve my problem. I can receive complete knowledge from the Web site. The e-tailer resolves the problems that I encounter.	



Relationship Quality	Satisfaction	I am satisfied with this e-tailer. I am satisfied with the relationship between me and this e-tailer.	Crosby et al. (1990), De Wulf et al. (2001), Garbarino and Johnson (1999), and Morgan and Hunt (1994)
	Commitment	I am proud to be a customer of this e-tailer. I care about the long-term success of the e-tailer I am a loyal patron of the e-tailer. I plan to maintain a long-term relationship with this e-tailer.	
	Trust	This e-tailer honors its commitment. I trust this e-tailer.	
E-Loyalty	Attitude	This e-tailer will be my first choice in the buying decision process. Even if the product of the e-tailer is more expensive, I would still purchase this e-tailer's product. When other e-tailer promotes a better product, I am still willing to purchase this e-tailer's product.	Peltier and Westfall (2000), Smith (2001), and Wen (2002)
	Behavior	I recommend this e-tailer to my relatives and friends. In the future, I will continue to purchase from this e-tailer. I always first consider this e-tailer when I need any product/service. I often browse through the Web site of the e-tailer. I actively participate in the e-tailer's Web site community. I actively discuss and offer my opinion on the Web site of the e-tailer.	

4. Data Analysis and Results

4.1 Measurement Model

A confirmatory factor analysis using AMOS 6.0 was conducted to test the measurement model. As shown in Table 3 All the goodness-of-fit values were acceptable ($\chi^2/df=2.562$, GFI=0.991, AGFI=0.943, CFI=0.937, NFI=0.983, IFI=0.937, RMSEA=0.072), thus demonstrating that the measurement model exhibited a fairly good fit with the data collected. Therefore, the study could proceed to evaluate the psychometric properties of the measurement model in terms of reliability, convergent validity, and discriminant validity.



▼ Table 3 Fit Indices for Measurement and Structural Models

Items	Measurement Model	Structural Model	Criteria
χ^2/df	2.562	1.889	<3
Goodness-of-Fit (GFI)	0.991	0.987	>0.90
Adjusted Goodness-of-Fit (AGFI)	0.943	0.938	>0.80
Comparative Fit Index (CFI)	0.937	0.987	>0.90
Normed Fit Index (NFI)	0.983	0.991	>0.90
Incremental Fit Index (IFI)	0.937	0.973	>0.90
Root Mean Square Error of Approximation (RMSEA)	0.072	0.043	<0.08

Cronbach's alpha and composite reliability (CR) indexes of the dimensions were computed for internal consistency reliability tests. All the alpha and CR values, ranging from a low of 0.79 for financial bonds to a high of 0.89 for commitment (see Table 4), exceeded the minimum threshold of 0.70 suggested by Nunnally and Bernstein (1994). Thus, the results provided evidence of reliability.

▼ Table 4 Reliability and Convergent Validity

	Item	Standardized Factor Loading	t -Value	Cronbach's α	Composite Reliability	Average Variance Extracted
Financial Bonds	RBF1	0.740	22.4242	0.79	0.8005	0.5011
	RBF2	0.719	17.1191			
	RBF3	0.695	21.7188			
	RBF4	0.676	15.15			
Social Bonds	RBS1	0.742	23.8974	0.85	0.8953	0.5177
	RBS2	0.776	24.0488			
	RBS3	0.656	13.9575			
	RBS4	0.627	16.9459			
	RBS5	0.727	22.7188			
	RBS6	0.727	20.7714			
	RBS7	0.745	21.8478			
	RBS8	0.744	22.0889			
Structural Bonds	RBST1	0.774	29.7692	0.84	0.8593	0.5059
	RBST2	0.784	24.5			
	RBST3	0.653	13.1667			
	RBST4	0.681	20.0294			
	RBST5	0.645	13.2927			
	RBST6	0.718	18.7083			



Relationship Quality	RQS1	0.851	42.55	0.90	0.9505	0.7067
	RQS2	0.902	47.4737			
	RQT1	0.869	37.7826			
	RQT2	0.921	40.0435			
	RQC1	0.730	21.4706			
	RQC2	0.814	35.3913			
	RQC3	0.814	29.0714			
	RQC4	0.809	27.8966			
E-Loyalty	ELA1	0.631	16.4141	0.88	0.9365	0.6235
	ELA2	0.744	20.6126			
	ELA3	0.862	24.3913			
	ELB1	0.701	18.9314			
	ELB2	0.763	21.2521			
	ELB3	0.902	26.4561			
	ELB4	0.833	22.7603			
	ELB5	0.782	21.0508			
ELB6	0.851	21.6823				

This study applied chi-square difference test to evaluate the discriminant validity of relational bonds and relationship quality by calculating the difference of the chi-square statistic for both constrained and unconstrained measurement models (Anderson and Gerbing, 1988). If the chi-square difference is significant, the model in which the two constructs are viewed as distinct factors is superior. The statistical results show that all the chi-square differences exceed $\chi^2(1, 0.05)=3.841$, demonstrating that relational bonds and relationship quality in this study have good discriminant validity (see Tables 5 and 6). The evidence of convergent validity was assessed by the significant loading of each scale item to its latent dimension and Table 4 showed significant t-values, ranging from 13.1667 to 47.4737. The average extracted variances were all above the recommended 0.5 level (Hair et al., 1992), which meant that more than half of the variances observed in the items were accounted for by their hypothesized factors. Following Hair et al.'s (1992) recommendation, factor loadings greater than 0.5 were considered to be very significant. All of the factor loadings of the items in the research model were greater than 0.5, with most of them above 0.9. As observed from the above and provided in Tables 4, 5, and 6, it was confidently concluded that the analysis results provided supports for discriminant and convergent validity.



▼ Table 5 Discriminant Validity for Relational Bonds

	Relational Bonds (Unconstrained)	Relational Bonds (Constrained Financial-Social)	Relational Bonds (Constrained Social-Structural)	Relational Bonds (Constrained Financial-Structural)
χ^2	705.338	709.260	714.162	710.225
df	120	121	121	121
$\Delta \chi^2$	-----	3.922	8.824	4.887

▼ Table 6 Discriminant Validity for Relationship Quality

	Relationship Quality (Unconstrained)	Relationship Quality (Constrained Trust-Commitment)	Relationship Quality (Constrained Commitment-Satisfaction)	Relationship Quality (Constrained Trust-Satisfaction)
χ^2	48.153	81.495	80.866	59.486
df	16	17	17	17
$\Delta \chi^2$	-----	33.342	32.713	11.333

4.2 Structural Model

This part is to investigate the impacts of three relational bonds on relationship quality and e-loyalty for search, experience and credence goods/services. The investigation involved two steps. First, to avoid multicollinearity problems, this study computed the variance inflation factor (VIF) for each variable in regression equations. Second, efforts were made to examine the moderating effects of three types of goods/services and the hypotheses of this study. The reason to test the moderating effects of three types of goods/services is to justify the feasibility of H₁ and H₃ hypotheses in terms of the empirical survey.

To determine the degree of multicollinearity, this study computed the VIF for each independent variable in regression equations using SPSS 14.0. Neter et al. (1996) suggested that VIF values greater than 10 are indicative of serious multicollinearity. The VIF value across the four independent variables ranges from 1.071 to 1.849 for search goods/services sample, from 1.254 to 2.187 for experience goods/services sample, and from 1.059 to 2.531 for credence goods/services sample. Thus, the results show that multicollinearity problems do not exist in this study. To assess the moderating effects of search, experience, and credence products, two structural models were developed: one was an "unconstrained" model, in which path coefficients were allowed to vary across-group datasets, and the other was a "constrained" model, in which the path coefficient of interest was constrained equally for three groups. Then, chi-square difference test of



“unconstrained” and “constrained” models was performed. If the chi-square difference exceeds the value of 3.841 ($\chi^2(1, 0.05) = 3.841$), there exists a moderating effect. Table 7 shows the results.

▼ Table 7 Moderating Effect Test

	χ^2 (Unconstrained)	χ^2 (Constrained)	$\Delta \chi^2$	Moderating Effect
Financial Bonds → Relationship Quality	16.997	29.083	12.086	Yes
Social Bonds → Relationship Quality	16.997	21.466	4.469	Yes
Structural Bonds → Relationship Quality	16.997	21.201	4.204	Yes
Financial Bonds → E-Loyalty	16.997	30.646	13.649	Yes
Social Bonds → E-Loyalty	16.997	68.252	51.255	Yes
Structural Bonds → E-Loyalty	16.997	27.698	10.701	Yes

Overall fit statistics of the structural model were adopted to test the valuation standard suggested by Bagozzi and Yi (1988). Table 3 presents the results: $\chi^2/df=1.889$, GFI=0.987, AGFI=0.938, CFI=0.987, NFI=0.991, IFI=0.973, and RMSEA= 0.043. The findings indicate that there is a satisfactory fit between the proposed model and the empirical data. Thus, the study could proceed to examine the path coefficients of the structural model.

4.3 Path Estimates

Table 8 suggests that the financial bond has positive effects on relationship quality across all categories. Moreover, the financial bond is more important for search goods/services than for experience and credence goods/services in terms of their respective standardized regression weights. To further investigate the significance of H_{1a}, the study compared the unstandardized regression coefficients between financial bonds and relationship quality for search and non-search (experience and credence) goods/services (Arnold, 1982). The results indicate that the impact of financial bonds on relationship quality is significantly greater for search goods/services than for non-search goods/services ($z=1.928$, $p<0.05$). Accordingly, H_{1a} is supported.



▼ Table 8 Standardized Regression Weights

Paths	Search	Experience	Credence
Financial Bonds → Relationship Quality	0.377***	0.356***	0.131**
Social bonds → Relationship Quality	0.123**	0.309***	0.249***
Structural Bonds → Relationship Quality	0.584***	0.512***	0.720***
Financial Bonds → E-Loyalty	0.159**	0.028	0.303
Social Bonds → E-Loyalty	0.181	0.017**	0.156
Structural Bonds → E-Loyalty	0.121	-0.126	-0.122
Relationship Quality → E-Loyalty	0.554***	0.858***	0.898***

***: $p < 0.01$, **: $p < 0.05$

The social bond has positive effects on relationship quality across search, experience, and credence goods/services. But, the social bond is more important for experience and credence goods/services than for search goods/services. Following Arnold's (1982) recommendation, unstandardized regression coefficients between social bonds and relationship quality were compared for non-search (experience and credence) and search goods/services. The results point out that the social bond has a greater impact on relationship quality for experience and credence goods/services than for search goods/services ($z = 1.813$, $p < 0.05$). Thus, H_{1b} is supported. The structural bond also has positive effects on relationship quality across all categories, but the structural bond is more important for credence goods/services. To investigate the significance of H_{1c} , the difference between credence and non-credence (experience and search) group was examined. The results support that the structural bond has a greater impact on relationship quality for credence goods/services than for experience and search goods/services ($z = 2.231$, $p < 0.05$). Accordingly, H_{1c} is supported.

The effect of relationship quality on e-loyalty has significant positive effects across all types of goods/services. Thus, H_2 is supported in that a higher level of relationship quality leads to a higher level of loyalty.

4.4 Measuring Direct and Indirect Effects

To investigate the effect of relational bonds on e-loyalty mediated by relationship quality, this study uses the approach suggested by Kenny (2010). The direct effect of the financial bond on e-loyalty shows that there exists a significant positive effect in search goods/services, but not in experience and credence goods/services, as is shown in Table



8. The study compared unstandardized regression coefficients between financial bonds and e-loyalty for search and non-search (experience and credence) goods/services in accordance with Arnold's (1982) work. The results indicate that the financial bond has a greater impact on e-loyalty for search goods/services than for experience and credence goods/services ($z=1.731$, $p<0.05$). Therefore, H3a is supported.

Table 9 shows that the indirect effect of the financial bond on e-loyalty is higher than the direct effect of that in search goods/services. This means that relationship quality can enhance the effect of the financial bond on e-loyalty in search goods/services. Table 10 and Table 11 show that the positive effect of the financial bond on e-loyalty should mediate through relationship quality across experience and credence goods/services.

The direct effect of the social bond on e-loyalty shows that it has a significantly positive effect in experience goods/services, but not in search and credence goods/services, as Table 8 reveals. The difference testing between non-search and search goods/services in the effect of social bonds on e-loyalty makes H3b not supported ($z=0.688$, $p>0.05$) in that the social bond only has a significant impact on e-loyalty for experience goods/services, but not for search and credence goods/services. Table 10 shows that the indirect effect of the social bond on e-loyalty is higher than the direct effect of that in experience goods/services. This means that relationship quality can enhance the effect of the social bond on e-loyalty in experience goods/services. Table 9 and Table 11 show that the positive effect of the social bond on e-loyalty should mediate through relationship quality across non-experience goods/services.

The direct effects of the structural bond on e-loyalty are not significant across all categories. Thus, H3c is not supported in that using the structural bond to maintain customers' e-loyalty is not useful. In Table 9, Table 10, and Table 11, the positive effect of the structural bond on e-loyalty should mediate through relationship quality across the three categories. Compared with the support of H1b, H1c, the reason why H3b and H3c is not supported can be attributed to the mediation effect played by relationship quality. Accordingly, this study asserts that no matter what bonding strategy (social or structural) is adopted, it is a prerequisite to build relationship quality first between Internet shoppers and e-tailers for non-search goods/services in order to earn the former' e-loyalty on the latter.



▼ Table 9 Direct and Indirect Effects on Search Goods/Services

	Direct Effect	Indirect Effect
Financial Bonds → Relationship Quality	0.377***	
Social Bonds → Relationship Quality	0.123**	
Structural Bonds → Relationship Quality	0.584***	
Financial Bonds → E-Loyalty	0.159**	0.208***
Social Bonds → E-Loyalty	0.181	0.068*
Structural Bonds → E-Loyalty	0.121	0.324***
Relationship Quality → E-Loyalty	0.554***	

***p<0.01, ** p<0.05, * p<0.1

▼ Table 10 Direct and Indirect Effects on Experience Goods/Services

	Direct Effect	Indirect Effect
Financial Bonds → Relationship Quality	0.356***	
Social Bonds → Relationship Quality	0.309***	
Structural Bonds → Relationship Quality	0.512***	
Financial Bonds → E-Loyalty	0.028	0.305***
Social Bonds → E-Loyalty	0.017**	0.265***
Structural Bonds → E-Loyalty	-0.126	0.439***
Relationship Quality → E-Loyalty	0.858***	

***p<0.01, ** p<0.05, * p<0.1

▼ Table 11 Direct and Indirect Effects on Credence Goods/Services

	Direct Effect	Indirect Effect
Financial Bonds → Relationship Quality	0.131**	
Social Bonds → Relationship Quality	0.249***	
Structural Bonds → Relationship Quality	0.720***	
Financial Bonds → E-Loyalty	0.303	0.117**
Social Bonds → E-Loyalty	0.156	0.223***
Structural Bonds → E-Loyalty	-0.122	0.646***
Relationship Quality → E-Loyalty	0.898***	

***p<0.01, ** p<0.05, * p<0.1



5. Discussion

5.1 Summary

According to the results, the search, experience, and credence goods/services significantly moderate the effects of relational bonds on relational quality. All of the three relational bonding strategies have positive effects on relationship quality across all categories. And, a specific relational bond would have a greater impact on relationship quality in different products. The financial bond has a greater impact on relationship quality for search goods/services than for experience and credence goods/services. In case of the social bond, it has a greater impact on relationship quality for experience and credence goods/services than for search goods/services; by contrast, the structural bond has a greater impact on relationship quality for credence goods/services than for experience and search goods/services.

On direct and indirect effects of three types of relational bonds on e-loyalty, the financial bond has a greater impact on e-loyalty for search goods/services than for experience and credence goods/services. In addition, the financial bond has a positive indirect effect, larger than direct one, on e-loyalty in search goods/services, suggesting that relationship quality can enhance the effect of the financial bond on e-loyalty in search goods/services. Then, the positive effect of the financial bond on e-loyalty should mediate through relationship quality in experience and credence goods/services. The social bond has a greater impact on e-loyalty for experience goods/services than for search and credence goods/services and its positive indirect effect on e-loyalty in experience goods/services is larger than direct one, indicating that relationship quality can heighten the effect of the social bond on e-loyalty in experience goods/services. Then, the positive effect of the social bond on e-loyalty should mediate through relationship quality across search and credence goods/services. However, the direct effects of the structural bond on e-loyalty are not significant across all categories. Thus, the positive effect of the structural bond on e-loyalty should mediate through relationship quality across search, experience, and credence goods/services.

Finally, in line with Berry and Parasurman's findings (1991), this study demonstrates that relationship quality has significant positive effects on e-loyalty across all types of goods/services. Thus, a higher level of relationship quality leads to a higher level of loyalty.



5.2 Contributions to Scholarship

First, the results show that financial bonds, such as cumulative points programs and pricing incentives, are more useful for strengthening relationship quality and e-loyalty for search products than for experience or credence products. Because search products have a higher degree of standardization, customers have full information before purchase. Customers often evaluate such products by how much they can save. If e-tailers selling search products can enhance relationship quality while adopting financial bonds strategies, customers can develop strong e-loyalty. Thus, it is important for e-tailers selling search products and using variety price strategies to maintain good relationship quality so as to win undivided e-loyalty from customers.

Second, the results indicate that the social bond has a greater impact on relationship quality for experience and credence goods/services than for search goods/services. Moreover, adopting social bond strategies can maintain good relationship quality with customers and inspire their strong e-loyalty. Because consumers cannot judge the performance of experience and credence goods/services easily, they would first seek information from friends, relatives, or acquaintances. If e-tailers can have favorable repeated interactions with customers through e-mails or blogs to reduce their apprehension, the latter will trust and be satisfied with as well as maintain long-term relationships with the former.

Third, our study further discloses that structural bonds have a positive effect on relationship quality but have a far greater impact on relationship quality for credence goods/services than for experience and search goods/services. Because credence goods/services are highly professional and associated with a high degree of variability, consumers can never be certain of their quality and value even from ex post observation. As a result, information is needed to reduce the risk (Zeithaml, 1981). E-tailers cannot maintain e-loyalty through structural bond strategies unless their relationship quality with customers is good. E-tailers selling credence products should request their prospective consumers to provide personal data that show their personal preferences before purchasing. Thus, e-tailers can offer valuable solutions to clients according to their preferences and needs.

Last but not least, relational bonds have a positive effect on relationship quality and e-loyalty. In addition, a specific relational bond would have a greater impact on relationship quality and e-loyalty to different products. If e-tailers can maintain good relationship quality with customers, they could enhance the latter's long-term e-loyalty. This study suggests that e-tailers should adopt different bonding strategies according to the



degree of difficulty to evaluate the product type they put on sale.

5.3 Applied Implications

This study is of prime utility for Internet marketing management, for it helps e-tailers understand the variables conducive to generating e-loyalty among their customers and consequently enable them to manage their relationship policies for long-term profit maximization. Below are some best practices exercised in Taiwan.

The Yahoo online shopping center (<http://buy.yahoo.com.tw/>), one of the typical examples to demonstrate the application of financial bonds, gives price-sensitive buyers the inside track to the best deals and discounts around. With its exclusive deal search technology and negotiating power, Yahoo's shopping center consistently delivers more ways to save on books, computer products, travel tickets, etc. than anyone else. Its success can be proved from its revenues of around US\$89 million in 2005, up 241% from the preceding year. In 2007, its revenues exceeded US\$200 million. Another example to illustrate how to implement social bond strategies is an e-mail program which frequently reminds Lion Travel (<http://www.liontravel.com/>) customers that it is time to reward themselves so as to ensure that they would buy a tour package from it. Finally, the Uni-President's OrganicShop Web site (<http://www.organicshop.com.tw/>) explains how structural bonds work. The OrganicShop performs various online organic products services functions (e.g., EZ healthy package meals, shopping centers) as well as online health value-added services such as the introduction to the certification of organic products, inquiry into the quality of produces monitored, what's new, and blogs. It recommends and tailors appropriate products to its customers, based on the enrolled data by its members. This strategy has successfully ended up with more customers loyal to the Web site.

5.4 Limitations and Future Research Directions

This study examines the impact of relational bonds on relationship quality and e-loyalty across search-experience-credence products. Although providing substantive explanations, it still has some limitations, which may show directions for future research.

The first limitation is the issue of external validity; that is, the ability to generalize our results outside Taiwan. The discussed findings and their implications are obtained from one single study that examined three types of products sold on the Internet and targeted Taiwanese Internet users. Thus, we need to exercise caution when generalizing our findings and discussion to other geographical areas. Thanks to the similar origins of the cultures,



however, the researchers believe that the results can be confidently applied to e-tailers in the Chinese World, including Hong Kong, Singapore, and China.

Next, the sampling ratio of the three product types is not equal. Future research may attempt to create a more stringent control in the sampling of the three product types. For example, the 20 goods/services chosen for the pretest to classify what are search, experience, and credence products were selected through online retail websites at the researchers' discretion. In order to make the research more precise, the future research can target higher profile Taiwanese online retail websites, such as Yahoo Kimo and PChome. By choosing products with high repetition rates in this representative selection of online retail websites, then the product list of future pre-tests may help to resolve the problem of disproportionate samples in these three product types.

Finally, this study has the secondary data about gender, age, and education to examine the sample population without considering other variables, such as "average hours for Internet access in one week" and "total time for e-shopping." Further research can find other secondary data including what this study has missed to make the sample more representative.

5.5 Conclusion

At almost no switching cost, Internet shoppers are in a position to switch to other sellers easily. E-tailers need to understand how to keep customers over the long-term. Although few studies have paid attention to related issues in the virtual Internet context, they are limited to the exploration of how relationship marketing affects online shoppers' commitment (e.g., Hsieh et al., 2005). Thus, this study contributes to the body of knowledge by suggesting the ways to build long-term relationships with customers in a virtual environment, including providing the information about the nature of bonds between consumers and e-tailers and the relationship among relational bonds, relationship quality, and e-loyalty. In addition, it determines which bonding strategies lead to higher relationship quality in different products.

The results suggest that financial, social, and structural bonds have positive impacts on relationship quality and e-loyalty. In addition, financial bonds are more powerful in affecting relationship quality for search goods/services than for experience and credence goods/services. Social bonds are more important for experience and credence goods/services than for search goods/services in the impact on relationship quality while structural bonds influence relationship quality more greatly for credence goods/services



than for search and experience goods/services. Finally, the greater the relationship quality between e-tailers and customers, the higher the e-loyalty.

References

- Aladwani, A. M. (2001). Online banking: A field study of drivers, development challenges, and expectations. *International Journal of Information Management*, 21(3), 213-225.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Arnold, H. J. (1982). Moderator variables: A clarification of conceptual, analytic, and psychometric issues. *Organizational Behavior and Human Performance*, 29(2), 143-174.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Beatty, S. E., & Lee, J. (1996). Customer-sales associate retail relationships. *Journal of Retailing*, 72(3), 223-247.
- Berry, L. L. (1983). Relationship marketing. In Berry, L. L., Shostack, G. L., & Upala, G. D. (Eds.), *Emerging perspectives on services marketing* (25-80). Chicago: American Marketing Association.
- Berry, L. L. (1995). Relationship marketing of services: Growing interest, emerging perspectives. *Journal of the Academy of Marketing Science*, 23(4), 236-245.
- Berry, L. L., & Parasuraman, A. (1991). *Marketing services - Competing through quality* (34-67). New York: The Free Press.
- Bolton, R. N. (1998). A dynamic model of the duration of the customers' relationship with a continuous service provider. *Marketing Science*, 17(1), 45-65.
- Brush, T. H., & Artz, K. W. (1999). Toward a contingent resource-based theory: The impact of information asymmetry on the value of capabilities in veterinary medicine. *Strategic Management Journal*, 20(3), 223-250.
- Crosby, L. A., Evans, K. A., & Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68-81.
- De Wulf, K., Odekerken-Schröder, G., & Iacobucci, D. (2001). Investments in consumer relationships: A cross-country and cross-industry exploration. *Journal of Marketing*,



65(4), 33-50.

- De Young, R. (1989). Exploring the difference between recyclers and non-recyclers: The role of information. *Journal of Environmental Systems*, 18(4), 341-351.
- Dibb, S., & Meadows, M. (2001). The application of a relationship marketing perspective in retail banking. *The Service Industries Journal*, 21(1), 169-194.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61(2), 35-51.
- Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51(2), 11-27.
- Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust and commitment in customer relationships. *Journal of Marketing*, 63(2), 70-87.
- Gengler, C. E., & Popkowski Leszczyc, P. T. L. (1997). Using customer satisfaction research for relationship marketing: A direct marketing approach. *Journal of Direct Marketing*, 11(4), 36-41.
- Gommans, M., Krishnan, K. S., & Scheffold, K. B. (2001). From brand loyalty to e-loyalty: A conceptual framework. *Journal of Economic and Social Research*, 3(1), 43-58.
- Grönroos, C. (1994). From marketing mix to relationship marketing: Towards a paradigm shift in marketing. *Management Decision*, 32(2), 4-20.
- Gundlach, G. T., Achrol, R. S., & Mentzer, J. T. (1995). The structure of commitment in exchange. *Journal of Marketing*, 59(1), 78-92.
- Guiltinan, J. P. (1987). The price bundling of services: A normative framework. *Journal of Marketing*, 51(2), 74-85.
- Gwinner, K. P., Gremler, D. D., & Bitner, M. J. (1998). Relational benefits in services industries: The customer's perspective. *Journal of the Academy of Marketing Science*, 26(2), 101-114.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1992). *Multivariate data analysis with readings* (3rd ed.). New York: Macmillan.
- Harker, M. J. (1999). Relationship marketing defined? An examination of current relationship marketing definitions. *Marketing Intelligence and Planning*, 17(1), 13-20.
- Hennig-Thurau, T., & Klee, A. (1997). The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development. *Psychology and Marketing*, 14(8), 737-764.
- Hsieh, Y. C., Chiu, H. C., & Chiang, M. Y. (2005). Maintaining a committed online



- customer: A study across search-experience-credence products. *Journal of Retailing*, 81(1), 75-82.
- Hsieh, Y. C., Lin, N. P., & Chiu, H. C. (2002). Virtual factory and relationship marketing - A case study of Taiwan semiconductor manufacturing company. *International Journal of Information Management*, 22(2), 109-126.
- Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty: Measurement and management* (89-165), New York: John Wiley and Sons.
- Kenny, D. A. (2010). *Mediation*. Retrieved March 23, 2010, from <http://davidakenny.net/cm/mediate.htm>
- Klein, L. R. (1998). Evaluating the potential of interactive media through a new lens: Search versus experience goods. *Journal of Business Research*, 41(3), 195-203.
- Krishnan, B. C., & Hartline, M. D. (2001). Brand equity: Is it more important in services? *Journal of Services Marketing*, 15(5), 328-342.
- Kumar, N., Scheer, L. K., & Steenkamp, J. B. E. M. (1995). The effects of supplier fairness on vulnerable resellers. *Journal of Marketing Research*, 32(1), 54-65.
- Lee, J., Lee, J., & Feick, L. (2001). The impact of switching costs on the customer satisfaction-loyalty link: Mobile phone service in France. *Journal of Services Marketing*, 15(1), 35-48.
- Lemon, K. N., White, T. B., & Winer, R. S. (2002). Dynamic customer relationship management: Incorporating future considerations into the service retention decision. *Journal of Marketing*, 66(1), 1-14.
- Liang, C. J., Chen, H. J., & Wang, W. H. (2008). Does online relationship marketing enhance customer retention and cross-buying? *The Service Industries Journal*, 28(6), 769-787.
- Lin, N. P., Weng, J. C. M., & Hsieh, Y. C. (2003). Relational bonds and customer's trust and commitment - A study on the moderating effects of web site usage. *The Service Industries Journal*, 23(3), 103-124.
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1993). The impact of organizational citizenship behavior on evaluations of salesperson performance. *Journal of Marketing*, 57(1), 70-80.
- McCall, G. J. (1970). The social organization of relationships. In McCall, G. J. et al. (Eds.), *Social relationships* (334-351). Chicago: Aldine Publishing Company.
- McCull-Kennedy, J. R., & Fetter, R. E., JR. (2001). An empirical examination of the involvement to external search relationship in services marketing. *Journal of Services*



- Marketing*, 15(2), 82-98.
- Mitra, K., Reiss, M. C., & Capella, L. M. (1999). An examination of perceived risk, information search and behavioral intentions in search, experience and credence services. *Journal of Services Marketing*, 13(3), 208-228.
- Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57(1), 81-101.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). *Applied linear regression models* (3rd ed.). Chicago: Irwin.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Ostrom, A., & Iacobucci, D. (1995). Consumer tradeoffs and the evaluation of services. *Journal of Marketing*, 59(1), 17-28.
- Palmatier, R. W., Dant, R. P., Grewal, D., & Evans K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis. *Journal of Marketing*, 70(4), 136-153.
- Papadopoulou, P., Andreou, A., Kanellis, P., & Martakos, D. (2001). Trust and relationship building in electronic commerce. *Internet Research*, 11(4), 322-332.
- Parsons, A. L. (2002). What determines buyer-seller relationship quality? An investigation from the buyer's perspective. *Journal of Supply Chain Management*, 38(2), 4-12.
- Patterson, P. G., & Smith, T. (2003). A cross-cultural study of switching barriers and propensity to stay with service providers. *Journal of Retailing*, 79(2), 107-120.
- Peltier, J. W., & Westfall, J. (2000). Dissecting the HMO-benefits managers relationship: What to measure and why. *Marketing Health Services*, 20(2), 4-13.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544.
- Reynolds, K. E., & Arnold, M. J. (2000). Customer loyalty to the salesperson and the store: Examining relationship customers in an upscale retail context. *Journal of Personal Selling and Sales Management*, 20(2), 89-98.
- Reynolds, K. E., & Beatty, S. E. (1999). Customer benefits and company consequences of customer-salesperson relationships in retailing. *Journal of Retailing*, 75(1), 1-2.
- Schultz, D. (2000). Customer/brand loyalty in an interactive marketplace. *Journal of Advertising Research*, 40(3), 41-53.



- Sharp, B., & Sharp, A. (1997). Loyalty programs and their impact on repeat-purchase loyalty patterns. *International Journal of Research in Marketing*, 14(5), 473-486.
- Singh, J. V., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgments. *Journal of the Academy of Marketing Science*, 28(1), 150-67.
- Smith, B. (1998). Buyer-seller relationships: Bonds, relationship management and sex-type. *Canadian Journal of Administrative Sciences*, 15(1), 76-92.
- Smith, E. R. (2001). Seven steps to building e-loyalty. *Medical Marketing and Media*, 36(3), 94-102.
- Srinivasan, S. S., Anderson, R., & Ponnnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing*, 78(1), 41-50.
- Srinivasan, R., & Moorman, C. (2005). Strategic firm commitments and rewards for customer relationship management in online retailing. *Journal of Marketing*, 69(4), 193-200.
- Strauss, J., & Frost, R. D. (1999). Selecting instructional technology media for the marketing classroom. *Marketing Education Review*, 9(1), 11-20.
- Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: An initial examination. *Journal of Retailing*, 76(3), 309-322.
- Taylor, T. B. (1998). Better loyalty measurement leads to business solutions. *Marketing News*, 32(22), 41.
- Thorbjørnsen, H., Supphellen, M., Nysveen, H., & Pedersen, P. E. (2002). Building brand relationships online: A comparison of two interactive applications. *Journal of Interactive Marketing*, 16(3), 17-34.
- Wen, S. S. (2002). *The relationship between customer value and e-loyalty*. Unpublished master's thesis, National Chung Hsing University, Taichung, Taiwan.
- Wilson, D. T. (1995). An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Science*, 23(4), 335-345.
- Zeithaml, V. A. (1981). How consumer evaluation processes differ between goods and services. In Donnelly, J. H., & George, W. R. (Eds.), *Marketing of services* (186-189). Chicago: American Marketing Association.
- Zeithaml, V. A., & Bitner, M. J. (2000). *Services marketing: Integrating customer focus across the firm* (2nd ed.). Boston: Irwin/McGraw-Hill.

