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# Why are Self-Service Customers Loyal? -- A Relational Benefits Perspective

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## Abstract

Self-service technology has been growing popular for current business practice to increase productivity and reduce cost. Issues regarding impacts of lacking human touch in technology-based interaction on jeopardizing customer relationship, however, has remained unanswered. The current study applied attribute-based model of SST and customer relational benefits model to address the concern of SST introduction and possible changes in customer relationship. A survey was conducted to test the impacts of Web-based self-service attributes on customer loyalty, and the possible mediating role of relational benefits. The results generally suggested that certain attributes of Web-based self-service are important at enhancing perceived relational benefits. Positive perceptions of confidence benefits, social benefits, and special treatment benefits obtained from the Web-based service provider resulted in higher customer loyalty. The implications of the research findings were discussed.

## 1. Introduction

The advances of information technology have brought dramatic changes in services business. More companies are offering and encouraging customers to use self-service technology which might provide substantial benefits for the firms in terms of improving productivity and cost saving (Lovell and Young, 1979; Schneider and Bowen, 1985). Consumers would choose the self-service technology (SST) option when they hold a positive attitude for enjoyment and control attributes of the SST option (Dabholkar, 1996). There are various types of SSTs interfaces, including telephone-based technologies, interactive voice response systems, direct online/Internet-based interfaces, interactive free-standing kiosks, and video or compact disc (CD) technologies (Meuter, Ostrom, Roundtree, and Bitner, 2000). The present study focus on Web-based self-service (WBSS) which is getting more prevalent recently.

It is worthy noting that the omission of interpersonal contact in the various SST interfaces could become a risk when firms implement SSTs. In fact, the interpersonal aspects of a relationship are at times found to be more important than the occasional price breaks or special service (Gwinner, Gremler, and Bitner, 1998). Therefore, it is possible that customers may become less loyal to the

relationship if the social bond between service employee and customers is weakened in the self-service technology interface. Despite of the potential risk on customer loyalty, more and more firms are motivated to introduce SSTs for a variety of advantages such as increased availability (Lovell, 1983), timesaving, and ease of use (Meuter et al., 2000). On the other hand, building strong customer relationships as a means for gaining a competitive advantage is also gradually emphasized (McKenna 1991; Reichheld, 1993). Therefore, it will be important for firms to find out how would the introduction of SSTs impact customers loyalty.

Customers would stay in a relationship if they receive certain benefits (Gwinner et al., 1998). Customers in long-term relationship normally experience three primary types of benefits beyond core service benefits, including confidence benefits, social benefits, and special treatment benefits (Gwinner et al., 1998). Could these relational benefits applied to explain customer relationship in self-service context?

Based on the above discussion, the current study aims to address the following research issues in the WBSS context. First, what are the attribute of WBSS that are influential for strengthen relational benefits? Second, are the three relational benefits important precursors of customer loyalty to Web-based service provider? Finally, this study proposed that relational benefits are important constructs mediating the relationship between WBSS attributes and customer loyalty.

## 2. Theoretical Background

Technology-based interaction is gradually becoming a popular option for service encounter, and as a critical source of influences on long-term customer relationship. In a marketplace where "products and services exist as digital information and can be delivered through information based channels" (Rayport and Sciokla, 1995, p 14), customers were not served by front-line personnel. Therefore, self-service technologies represent a typical transactional form in which no interpersonal contact is required for service encounter. During the encounter, customers using self-service technology are viewed as "partial employees" to serve themselves, and their evaluations of attributes associated with SST could be crucial in determining consumers' continuance of SST usage. The current study builds upon the attribute-based

model of SST (Dabholkar, 1996) and proposes attributes as important antecedent of customer relational benefits in the context of Web-based self-service. In specific, perceived performance, perceived efficiency, enjoyment, perceived control, and customization are suggested as significant factors in customer relationship management.

Positive outcomes gaining from strong customer relationship have been well documented in the literature (e.g., Aaker, 1992; Clark and Payne, 1994; McKenna, 1991; Reichheld, 1993; 1996), but studies regarding the relationship benefits are primarily approached from the perspective of the firm (Gwinner et al., 1998). On the other hand, customers also need to benefit either from the core product/service or from the relationship to remain loyal to a firm. This is particularly true since most products and services are offered by more than one firm (Hennig-Thurau, Gwinner, and Gremler, 2000). Grounded upon previous work on customer relational benefits (Barnes, 1994; Bendapudi and Berry, 1997; Berry, 1995), Gwinner et al., (1998) developed and empirically examining the typology of relational benefits. They suggested that customers in long-term relationship normally experience three primary types of benefits beyond core service benefits; namely, confidence benefits, social benefits, and special treatment benefits (Gwinner et al., 1998).

The first type, titled confidence benefits by Gwinner et al., (1998), describes the advantages of long-term relationship at reducing uncertainty in transactions and increasing realistic expectation for service encounter. The second type, social benefits, describes the emotional aspects of the relationship and focuses on personal recognition of customer by employees and the development of friendship between customers and employees. The third type of benefit contains both economic benefits and customization benefits and was titled as special treatment benefits by Gwinner et al., (1998). Advantages such as price breaks, fast services, individualized treatment are the special treatment benefits one normally received from staying in a long-term relationship. As the development of each type of relational benefits might be related to direct personal contact to a more or less extent, whether customers perceive any relational benefits from being loyal to a particular technology-based service provider remains unknown.

The infusion of Internet technology into services can improve customer relationship (Walsh and Godfrey, 2000). The advances of technology enhance customer relationship by automatically and effortlessly collecting, analyzing, and utilizing customer information. The Internet-based technology also provides the firm a convenient and powerful tool to interact closely with customers over time to establish a personal and more intimate relationship. Despite of these relationship marketing practices, customers still want quality services from technology-based service providers just as they always want (Bitner, 2001). While WBSS attributes might

characterize the technology-based service encounter for consumers, the performance of these attributes could subsequently form perceived relational benefits of staying with a particular technology-based service provider. The current study proposed that performance of each WBSS attributes would result in distinct relational benefits for customers.

### *2.1 Hypothetical Model*

The relationship between the four WBSS attributes and relational benefits are proposed in the following. The first attribute, perceived performance, is derived from the concept of usefulness. Perceived usefulness refers to user's belief about the probability of increasing job performance by using a specific computer software (Davis et al., 1989). The nature of perceived usefulness might not be an attribute applicable to the context of SST usage. Instead, Dabholkar (1994) proposed "performance" as an attribute replacing perceived usefulness, and is conceptualized to encompass the perceived reliability and accuracy of self-service technology. The literature has identified reliability as an important dimension to evaluate service quality (e.g., Parasuraman, Zeithaml, and Berry, 1988; Van Gorder, 1990). A similar dimension, "did its job", was found in another study as a factor relevant to consumer satisfaction with SST (Meuter et al., 2000). The capability to perform the intended task is predicted to enhance the confidence of using Web-based self-service. Therefore, it is predicted that perceived performance in using WBSS will be positively associated with confidence benefits.

The second attribute, perceived control, refers to the amount of control customer feels that she or he holds over the process or outcome of a service encounter (Debolkar, 1996). Perceived control is important for self-service users (Langeard, Bateson, Loverlock, and Eiglier, 1981) and they often chose to use this option to feel in control during the process (Bateson, 1985). Consumers also feel satisfied with SST because this option enables them to acquired needed service without having to contract with service personnel (Meuter et al., 2000). Therefore, SST allows some customers the alternative to regain the control by performing the tasks usually conducted by service employees. Accordingly, the greater control one perceived in using WBSS, the more likely one feel confident of using the option. Accordingly, perceived control is hypothesized to have a positive and direct effect on perceived confidence benefits.

The third attribute, enjoyment, was considered as a characteristic capturing customer perception of SST (Dabholkar, 1994) or a determinant on technology usage (Webster, 1989). Dabholkar's study (1996) also discovered enjoyment as a determinant of SST service quality and intention to use SST option (Dabholkar, 1996). The literature suggested that interaction intensity and utilitarian value of the relationship are relevant to the development of social bonds (Selness and Hansen, 2001). When customers feel that it is fun to deal with a service

provider, the relationship become more enjoyable to customers (Gwinner et al., 1998). Thus, likeability of particular Web-based service provider might increase as the enjoyment of interaction escalates, which then become a good base for developing social benefits. In other words, positive affect derived from using WBSS of certain service provider could transform into the emotional aspect of the relationship and facilitate perceived social benefits of relationship. Consequently, enjoyment is hypothesized to have a positive and direct effect on social benefits.

The fourth attribute, customization, refers to the freedom to personalize the use of self-service devices in terms of time and location. Also, customization is conceptualized as the belief that WBSS offers users another option to acquire the services at their personally preferred manner. For example, some Website offer the storage that customers may place their preferred items and decide later whether they want to purchase. This option may be especially important for certain consumers and is an attribute unique in WBSS to satisfy personal shopping needs. The concept of this attribute is similar to the “when I want” and “where I want” sub-dimensions emerged in the critical incidents study by Meuter et al., (2000), and the “convenience” factor as one antecedent of e-satisfaction in a study by Szymanski and Hise (2000). The present study suggests that the attribute, customization, represent an unique offer of utilitarian value satisfy customer personal preference. And the capability to satisfy individual needs might bring positive affect to the relationship and strengthen the perception of social benefits. Therefore, it is hypothesized that customization will both have positive effects on perceived social benefits.

In addition, the nature of customization to offer special features that meets individual preference would be the characteristics most relevant to special treatment benefits. Although the nature of around-the-clock access seems to be fundamental for Internet, some technical breakdown and other maintenance problem could erode the fulfillment of customization. Therefore, we proposed that perceived customization would have a positive effect on perception of special treatment benefits.

The last attribute, perceived efficiency, is the speedy nature of WBSS to solve users’ needs than other service options. Meuter et al., (2000) found that the character to solve intensified need is the first factor determining users’ satisfaction with SST. When consumer expected a long waiting time for receiving services, the speed of delivery in SST become an important factor (Dabholkar, 1996). The fact that consumer can use Web-based self service to satisfy their needs in a fast manner could become a special benefit that customers received from using WBSS. Thus, perceived efficiency of using WBSS is predicted to have a positive effect on special treatment benefits.

Positive relationships between the three types of relational benefits and customer loyalty related constructs have been reported in previous studies (Gwinner et al., 1998; Hennig-Thurau, Gwinner, and Gremler, 2002). Regardless of the service types, confidence benefits are

believed to be the most important type of benefits (Gwinner et al., 1998), and its effects on loyalty primarily occur through satisfaction (Hennig-Thurau et al., 2002). Compared with the direct and significant effects of social benefits on customer loyalty, the direct effects of special treatment on loyalty have not received consistent support (Hennig-Thurau et al., 2002). Due to the nature of Web-based self-service, the impacts of the three types of relational benefits might function in a slightly different pattern. In specific, security and privacy issues of online transaction are still primary concerns for consumers (need supporting reference), perception of confidence benefit is predicted to have a positive effect on intent to stay in the relationship.

On the other hand, the practices of data mining and warehousing technique to record and analyze customers’ shopping behaviors allow the Web-based service providers the opportunities to provide customized offers to their customers. The information can also be utilized by Web-based service providers to present recommendations particularly fitting into customers’ interests and needs e at the real-time interaction. These performances all represent special treatment benefits that customers could experience with Web-based service provider, and is predicted to have a positive effect on intent to stay in the relationship. Finally, although the emotional element and friendship that usually exist between customers and employees are difficult to imitate, friendly treatment of the Web-based service provider toward the customers may be perceived as a social benefit to the customers. For customers who are familiar with certain Web-based self-service may see the interface as so enjoyable and become another channel for their social life, which further nurture the social benefits of using WBSS and its effect at enhancing customer loyalty.

In sum, there are 9 hypotheses proposed for the current study:

*Hypothesis 1: Perceived performance in using WBSS will have a positive effect on perception of confidence benefits.*

*Hypothesis 2: Perceived control of using WBSS will have a positive effect on perception of confidence benefits.*

*Hypothesis 3: Enjoyment in using WBSS will have a positive effect on perception of social benefits.*

*Hypothesis 4: Customization in using WBSS will have a positive effect on perception of social benefits.*

*Hypothesis 5: Customization will have a positive effect on perception of special treatment benefits.*

*Hypothesis 6: Perceived in using WBSS will have a positive effect on perception of special treatment benefits.*

*Hypothesis 8: Confidence benefits are expected to have a positive impact on customers’ intent to stay*

*in the relationship.*

*Hypothesis 9: Social benefits are expected to have a positive impact on customers' intent to stay in the relationship.*

*Hypothesis 9: Special treatment benefits are expected to have a positive impact on customers' intent to stay in the relationship.*

### **3. Research Methods and Analyses**

A self-administrated, cross-sectional survey was conducted with 459 respondents across two service industries (i.e., travel agency and bookstore). The two types of services were selected due to their distinction on contact levels. According to the taxonomy of service firms by Bowen (1990), travel agency is classified as a high contact service type and books retailing is conceptualized as moderate contact because usually standardized services are offered in bookstore. While the services are offered on the Web, the level of contact embedded in the nature of the two service industries could both be transformed into low customer contact. Consequently, customers in the two service industries might go through distinct degree of adjustment when they move from full service to self-service on the Web. It would be interesting to understand whether the reasons to be loyal self-service customers are identical for the two service types of distinct contact level.

Perceived attributes of Web-based self-service (WBSS), customer relational benefits, and loyalty were all assessed with 7-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). Measurement of WBSS attributes were adopted from Debholkar's study (1996) and modified to tap the nature of Web-based self-service. The scale developed by Gwinner et al., (1998) to assess the three relational benefits were revised for current study to capture the nature of the two service industries and the characteristics of WBSS. Confirmatory factor analyses performed for the two sets of constructs indicated a good fit of the measurement models to the data (both CFIs  $\geq$  .952, both GFIs  $\geq$  .959, both TLIs  $\geq$  .920). The results also supported the measures applied in the present study appropriate measures of WBSS attributes and relational benefits.

To address the three research issues, structural equation modeling was performed to test the relationship between WBSS attribute evaluation and relational benefits, and between relational benefits and customer loyalty. The analyses revealed a good fit of the hypothesized model to the data ( $\chi^2=490.895$ ,  $df=170$ ,  $p<.001$ ; CFI=.910,

GFI=.910). The parameter estimates showed that perceived performance and perceived control in using WBSS had significantly positive effects on confidence benefits. More positive social benefits resulted from more favorable evaluations on enjoyment and customization of WBSS, and special treatment benefits are positively associated with efficiency and customization of WBSS option. In conclusion, the six hypotheses regarding WBSS attributes and relational benefits were confirmed.

In addition, the analyses also showed that all three types of relational benefits had significantly positive impacts on customer loyalty. That is, hypothesis 7, 8, and 9 are also supported in the current study. A comparison of the hypothetical model with a saturated model containing both direct and indirect effects of WBSS attributes on loyalty suggested that relational benefits are important mediators between WBSS attributes and customer loyalty.

### **3. Conclusion and Discussion**

While previous studies suggested that cognitive evaluation of SST attribute would influence consumers' intention to use self-service technology, none of these empirical studies attempted to investigate the impacts of these attributes on consumers' loyalty. This study built on the attribute-based model of SST and customer relational benefits model to study factors determining customers' loyalty in the context of Web-based self-service. The study in general suggested that WBSS attributes offers explanations for reasons that customer are willing to be loyal to a service provider as the contact is technology-based. In specific, when the Web-based self-service device is evaluated as efficient, controllable, enjoyable, capable, and customized to meet personal needs, customer are willing to stay loyal to the Web-based service provider although no contact personnel is present to establish the social bonding. This study is also important to provide evidences to show that social benefits are still important for consumers although there is no human touch in the WBSS. More importantly, social benefits in technology-based interaction can be developed through certain design of the SST device. These findings would be very important for companies that are planning to offer customers Web-based self-service as an option for service encounter.

### **4. References**

References are available upon request.