



Title	Developing consumer-based service brand equity via the internet: The role of personalization and trialability
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Citation	Journal Of Organizational Computing And Electronic Commerce, 2008, v. 18 n. 3, p. 197-223
Issued Date	2008
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Publisher Taylor & Francis

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Journal of Organizational Computing and Electronic Commerce

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t775653688>

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Online Publication Date: 01 July 2008

To cite this Article Chau, Patrick Y. K. and Ho, Candy K. Y. (2008) 'Developing Consumer-Based Service Brand Equity via the Internet: The Role of Personalization and Trialability', *Journal of Organizational Computing and Electronic Commerce*, 18:3, 197 — 223

To link to this Article: DOI: 10.1080/10919390802198956

URL: <http://dx.doi.org/10.1080/10919390802198956>

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DEVELOPING CONSUMER-BASED SERVICE BRAND EQUITY VIA THE INTERNET: THE ROLE OF PERSONALIZATION AND TRIALABILITY

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The commercialization of the Internet has provided opportunities for building service brands in the minds of consumers. Services are characterized as intangible, heterogeneous, inseparable, and perishable features that often engender high information costs and, hence, low perceived value to potential consumers. When a service is available via the Internet—a medium that can subdivide and rebuild the service into personalized offerings—potential consumers become better informed in advance of what the service provides. The Internet also permits most services to be trialable before consumption. These new features, empowered by the Internet, have important implications for what we call consumer-based service brand equity (CSBE), the value that potential consumers assign to a service brand. This article investigates the effects of service personalization and trialability on the development of CSBE of Internet banking service, a typical service available via the Internet. Results from a laboratory experiment indicate that both service personalization and trialability have significant positive influences on the development of the CSBE of an Internet banking service brand. While personalization was found to indirectly influence CSBE development by mediating the perceived benefits of the brand, trialability exerted both a direct and an indirect effect. Trialability developed the brand's CSBE by first mediating the information through gathering cost savings and then the perceived benefits of the brand. Implications of the study's results are discussed.

Keywords: consumer-based brand equity; Internet banking; personalization; service brand equity; technology adoption; trialability

INTRODUCTION

The Internet has been changing the ways brands are developed and marketed. With its ability to enhance globalization, the Internet has been eliminating regional pricing differences, information access inequalities, and variations in stock availability. This global equalization causes the brand name to be the primary tool that consumers use to distinguish designated products from their competitors [1–3]. With brand-building efforts through traditional mass media becoming less effective and less efficient, but more costly [4], marketers are increasingly spending more on Internet outlets to market their

The authors thank the anonymous reviewers for valuable comments and suggestions on an earlier version of this article.

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brands [5]. The move is justified by the potentially enormous value a brand adds to a product, namely brand equity. The Coca-cola brand, for example, which is the world's most valuable global brand according to the Global Brand Scoreboard 2003, is itself valued at more than US\$70 billion. In monetary terms, this is the value that the brand is likely to create throughout the course of the brand's life [6]. Consequently, brand equity development is receiving much attention from practitioners and researchers. Because only when a brand has value to its consumers does it have value to other stakeholders [7], consumer-based brand equity (CBE) has become one of the most extensively documented categories of brand equity studies [8–13].

In this connection, the Internet seems to have a more profound impact on the development of CBE of branded services than on the development of branded goods. Services are characterized as intangible, perishable, heterogeneous, and inseparable in terms of production and consumption [14]. Recently, the Internet is suggested to have the ability to complement the unique characteristics of services to provide better services for meeting consumer expectations [15]. However, there is limited research on the development of CBE of branded services,—that is, consumer-based service brand equity (CSBE)—via this new medium. As the effectiveness of CBE development strategies has been known to be product- and market-characteristic dependent [16], findings of past CBE development studies, which mostly focus on the development of the brand equity of branded goods through traditional marketing media, may be of little relevance to the development of CBE of service brands in the Internet context. Given the inherent difficulty in differentiating products that lack tangible characteristics, as well as the intense competition that exists in many service markets [17], the development of CSBE in the Internet context has received less attention than it deserves.

In response to this call, this study explores how CSBE may be effectively developed in the Internet context. Specifically, with reference to the characteristics of services and to that of the Internet as documented in the information systems (IS) and marketing literature, personalization and trialability are identified as contributory features to the development of CSBE in the Internet context. As the Internet has emerged as a new medium that hosts a vast number of alternative brands for consumers to choose from, specific insights are drawn from the technology adoption and consumer choice behavior literature to examine the mechanism of CSBE development. To investigate the effects of the selected features on CSBE development, we have chosen the Internet banking service as an illustrative empirical setting. We chose this service because it not only carries the typical characteristics of services (being intangible, difficult to evaluate, and inseparable between production and consumption [18]), but it also employs the Internet as the main medium to communicate with its consumers in various stages of the consumption cycle. The findings of this study are expected to provide insights into how the Internet can be effectively deployed as a medium to build CSBE. In addition, we hope that this study will be a good starting point for exploring other e-commerce applications of the Internet.

This article is organized as follows. The next section reviews some basic concepts about brand equity and the characteristics of the Internet and services that led to the motivation for this study. In the context of Internet banking services, a research model that is developed based on relevant past literature is then proposed and discussed. The methodology employed to assess the research model is then outlined. We present the data analysis and results as well as a discussion of the results. Finally, the limitations and conclusions of this study are presented.

BACKGROUND AND RESEARCH MOTIVATION

The Concept of Consumer-Based Brand Equity

Brand equity generally refers to the value that a brand adds to a firm, a retailer, and a consumer [19]. CBE is thus the value added by the brand to its products as perceived by the consumer, which is often viewed from the behavioral and/or attitudinal perspective. When viewed from the attitudinal perspective, Keller [20] conceptualized CBE as the differential effect of brand knowledge on the consumer's response to the marketing of the brand. CBE is said to occur when a consumer is familiar with a brand and holds some favorable, strong, and unique brand associations in his or her memory. With certain marketing activities or experiences with the brand, a consumer's attitude toward the brand changes over time. Erdem et al. [21] proposed that a consumer learns about a brand as a result of the receipt of new brand information at different stages of the brand choice process, making CBE dynamic in nature and varying across different component stages of a consumer's choice decision. Taking into account the effects of changes in the consumer's brand attribute perceptions on the formation of the consumer's consideration set over time, the value of a brand to a consumer becomes a behaviorally motivated and process-oriented specification. This line of thought is consistent with early brand equity conceptualization [22] in which brand equity has both consumer-attitudinal (perceived quality, brand awareness, and brand associations) and behavioral (brand loyalty) dimensions.

Despite various definitions, there is some consensus on the meaning of CBE by researchers at the conceptual level. CBE generally refers to the favorable (or unfavorable, in the case of negative CBE) consumer-related, brand-specific outcomes of a product attributable to the product's brand name. Although there exist brand equity conceptualizations from both consumer-attitudinal and behavioral perspectives, this study takes the view that consumers' brand-specific behaviors (e.g., brand loyalty) are driven by the attitude that consumers have about the brand (e.g., the brand is superior to alternative brands). In other words, this study views CBE as attitude based. However, as consumer evaluations of brand interactions have been shown to relate to the characteristics of the branded product [18, 23], CBE development is also dependent on the product's characteristics. Thus, the development of CBE of branded services should be examined separately from the development of CBE of branded goods.

Consumer-Based Service Brand Equity

There has been limited research on the CBE of branded services (i.e., CSBE). Among those limited studies, Berry's [17] study of 14 high-performance service companies is a seminal work on service brand development. Berry states that consumers' dominant perceptions of a service brand define the value of the brand. Consumer experience with a service brand is, in turn, the main source of brand meaning. A strong service brand should provide a differentiated and valuable experience that emotionally connects with consumers.

Similarly, by focusing on the sports marketplace, Underwood et al. [24] propose that social identification—the defining of oneself in terms of various social groups, such as fans of a sports team, as opposed to an individual—is fundamental to CSBE development of high commitment and involvement services. A service brand that fosters a deep sense of affiliation contributes to CSBE development. This line of thought is consistent with

Berry's [17] conceptualization that service brands that emotionally connect with consumer emotions are effective in cultivating CSBE because these brands capture and communicate the values that consumers hold dear.

CSBE Development in the Internet Context

While the communication of brand value to consumers is the key to CSBE development, the way that CSBE is developed may also be influenced by the medium hosting the development process. Past studies indicate that consumer perceptions toward a brand are dependent, not only on consumer perceptions about the brand and the delivery medium, but also on the perceived fitness between the brand and the delivery medium [25]. In essence, the characteristics of services and those of the Internet are suggested to be complementary. The Internet is a high-information content medium that enables mediated communication between service providers and consumers as well as among consumers themselves [26]. Its ability to mediate information conveyed is important in communicating the value of a service brand to consumers. By responding immediately to consumers about their experiences with the brand, the service provider can make the benefits of its service more apparent. During the course of using an Internet banking service, for example, consumers are explicitly told when they have entered and left a secure connection with the bank. Such notifications induce consumers to be aware of the security they enjoy in using the Internet banking service. Unlike most other traditional mass media, the Internet is a feedback symmetric, synchronous, and machine- and person-interactive medium [26]. These characteristics allow the service provider to produce instant evidence to make its service tangible. For example, in the case of Internet banking services, the provision of a reference number for every banking transaction provides evidence to consumers that a transaction is completed and has been brought to the bank with immediate attention. It has been shown that consumers tend to be skeptical of unfamiliar services and regard them as providing value slightly less than the market's average standard [27, 28]. The unique characteristics of the Internet seem to be a good complement with those of services in making brand values explicit to consumers.

With reference to the IS and marketing literature, this study identifies personalization and trialability as service features that could effectively develop the CSBE of a service brand in the Internet context. It has been suggested that services particularly benefit from personalization in comparison with goods due to their unique characteristics [29]. With the ability to subdivide and rebuild services into personalized offerings, the Internet can easily assist consumers by conveying tailor-made services from a single service provider to a wide range of consumers. In addition, existing literature has proposed product trials as an effective way of brand building [20, 22]. This tactic should be more relevant to services that are dominated by experience and credence attributes. In addition, because of the limited cognitive capacity, consumers may find making a choice decision in the Internet context more difficult than in other contexts because there is an excessively large number of alternative (but mostly unfamiliar) brands from which to choose. Because consumers tend to incorporate the cost of gathering and processing information in the benefits a service brand provides [30], effort that helps lower such costs would be useful in enhancing the benefits of the brand. A highly trialable service brand would enable potential consumers to collect and process information about the brand with less effort. Therefore, this feature should help make the benefits of the brand explicit to consumers.

RESEARCH MODEL AND HYPOTHESES

Based on the extant literature, two service features, personalization and trialability, are proposed to have positive effects on the development of CSBE. The perceived benefits of a service brand and the information-gathering and processing cost savings in association with the brand are also proposed as mediating factors that contribute to CSBE development. The interrelationships among these constructs are depicted in Figure 1.

Consumer-Based Service Brand Equity

Many researchers regard CBE as the differential value a branded product provides compared with its non-branded counterpart [10]. In the case of services, the CSBE of a service brand is defined as the value of the brand conferred by the consumer that cannot be explained by its objectively measured attributes. As mentioned in the above section, beliefs about the value of a service brand are formed from the meaning a consumer confers on the brand [17]. These beliefs should be revised and updated on the receipt of new brand information [21]. Such incorporation of consumer learning in the concept of CSBE characterizes its time-specific nature. This means that to obtain the changes in the CSBE value due to the effects of certain factors, the CSBE value should be measured at two time points.

In the Internet context, consumers are active information seekers who search with an aim [21]. It is during the course of searching that consumers learn about a service brand and update the brand's CSBE value. Thus, this study specifically investigates how CSBE can be developed in situations when consumers seek information for making consumption decisions.

This study confines the focus of the investigation to the development of CSBE of Internet banking service brands in potential consumers for two major reasons. First, communicating the benefits of a service brand to potential consumers is always difficult.

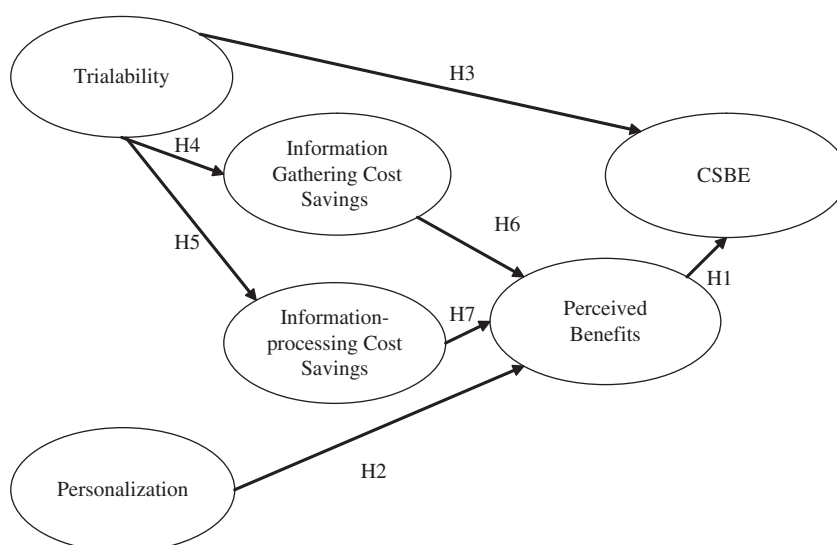


Figure 1 Research model on the development of CSBE of Internet banking service. CSBE = consumer-based service brand equity.

Due to the intangible and experience-/credence-attribute dominant characteristic, services cannot be assessed before actual consumption. Without direct personal brand experience, it is difficult for consumers to know exactly what they will get and how they will benefit from using a service brand. Second, the Internet provides an excessively large number of choices at low costs to consumers. Making a consumption decision is becoming very difficult in the Internet context. As brand equity has been suggested to be an effective tool for consumers to use in making easier brand choices [22], the key challenge for service providers in the e-commerce arena has become how CSBE can be cultivated in potential consumers during the course of making a consumption decision. Based on the above considerations, the research model proposed here specifically refers to the cultivation of CSBE in the Internet.

Perceived Benefits

The perceived benefits of a service brand are the benefits the brand provides in the mind of the consumer. Past studies show that a brand with quality product attributes is usually related to a high level of brand equity [10, 31]. Although the identified attributes that are valued by consumers differ from product to product [10, 32], these attributes share the common trait that they all provide benefits to consumers. The perceived benefits of a brand are believed to play an important role in the determination of its brand equity value. Berry [17] contends that service providers should perform their services well and provide consumers with consistent, differentiated, and distinctive brand experiences. The brand should also be connected emotionally with consumers such that it reflects consumers' core values [17]. In other words, consumers should regard themselves as benefiting from the brand experience. This is particularly important in the case of services, which are invisible and unable to be seen, felt, tasted, or touched in the same manner in which goods can be sensed [18]. As Shostack [33] put it, "services are not things and should not be marketed as things." Consumers purchase services as "a bundle of benefits" that generate consumer satisfaction [34]. This implies that CSBE is a subjective value conferred by a consumer that is related to the benefits the brand and its attributes provide. Therefore, the benefits of an Internet banking service brand as perceived by a consumer are believed to have a direct and positive relationship with the CSBE of the service brand. Therefore, we propose that:

H1: The level of perceived benefits of an Internet banking service brand positively affects the level of CSBE of that brand.

Personalization

Personalization is known as the process of using a consumer's information to deliver a targeted solution to that consumer [35]. Many research studies show that personalization brings benefits to consumers. Personalization of offerings, for example, allows consumers to enjoy "better" and "more suitable" offerings, more offerings at lower prices, and the freedom of choosing offerings by themselves [36, 37]. In terms of Internet services, Postma and Brokke [38] have experimentally shown that consumers prefer personalized, rather than standardized, e-mail recommendations.

Depending on the mechanism employed, personalization can be classified into exogenous and endogenous personalization. Exogenous personalization allows consumers

to choose their preferred category of service offerings on their own; while endogenous personalization returns service offering recommendations to consumers based on such criteria as past consumption history and demographic information. In Internet banking services, exogenous personalization is deemed to be a better personalization strategy because service providers are shown to benefit from allowing consumers to self-select service bundles when consumers have heterogeneous preferences and marginal costs of personalization exist [37, 39]. This study specifically investigates the effect of exogenous, rather than endogenous, personalization.

With the complement of Internet technologies, the positive effects of personalization on services become more evident in the Internet context. Services are characterized as heterogeneous, inseparable, intangible, and perishable [14]. Services are heterogeneous as they vary in terms of who provides them and when, where, and to whom. With the use of the Internet and its complementary technologies, services can be divided into the smallest constituent elements and can then be reconstructed into personalized services according to consumer preferences [15]. For example, a personalized Internet banking welcome page can host only those functions that the individual consumer prefers. Services are also known as inseparable, as their production and consumption cannot be separated and the services are consumed only when produced. Services are intangible because they have no physical presence and they merely cease or are terminated by either the service provider or the consumer. By interactively participating in the co-production of services, consumers have the room to expand the scope of the service and even to generate new types of personalized services according to their will and capability [40]. For example, consumers can set up a personalized "investment fund" by selecting different investment options available from an Internet banking Web site. In addition, as services cannot be stored or stocked, they are said to be perishable. When rendered via the Internet, banking services are available to consumers around the clock. This helps manage the matching of service supply and demand. Hence, personalization of an Internet banking service brand is likely to be positively related to the perceived benefits of the brand. We therefore hypothesize that:

H2: The level of personalization of an Internet banking service brand positively affects the level of perceived benefits of that brand.

Trialability

Trialability refers to the extent to which an innovation can be experimented with on a limited basis [41]. An innovation can be regarded as anything new to an individual. Any service brand, to a greater or lesser extent, is an innovation to consumers before consumption, and thus it possesses a certain degree of trialability. In this study, trialability of a service brand is defined as the extent to which the branded service can be tried on a limited basis before consumption.

The provision of a product trial has been suggested to be helpful in building strong brand equity with the consumer [19, 20]. This is particularly useful in building brand equity of new products, which are unfamiliar or even unknown to consumers [42]. The effect of product trial can also be strong enough to extend to other parties. Recently, Washburn et al. [43] found that positive product trials seem to enhance consumer evaluations of co-branded products.

As in the case of services, the effect of trials on brand equity development seems more influential than that of trials on goods. As mentioned above, Internet banking

services are mainly dominated by experience and credence attributes, and evaluation of services usually differs from person to person; that is, services are subjective by nature. Ford et al. [23] found that consumers are more skeptical of experience and credence than of search attribute advertising claims and are more skeptical of subjective than of objective claims. This implies that consumers would be less reliant on advertising and subjective claims of Internet banking service brands. In the course of making a choice decision, consumers would tend to rely more on information obtained from personal sources when they are skeptical of Internet banking service brand information obtained from impersonal sources. Service trials are a direct and personal way of informing consumers what a service brand provides. This feature is effective in communicating the values that a service brand provides to its consumers and, hence, is beneficial to service brand building [17]. This implies that consumers would put more weight on trial experience in making brand choice decisions. Trialability of Internet banking service brands, therefore, is likely to play a significant role in the development of CSBE. Therefore we propose that:

H3: The level of trialability of an Internet banking service brand positively affects the level of CSBE of that brand.

Information-Gathering and Processing Cost Savings

Generally, the value provided by a brand that is identified as the best from a set of alternative brands may be different from the value it provides when it is identified also as best from another set of alternative brands because the costs of getting to know a brand are incorporated in the benefits it provides [30]. Specifically, a consumer incurs information costs in getting to know a brand. Information costs involved in making a consumption decision include information-gathering and processing costs [8]. The information-gathering costs of a brand on a consumption occasion refer to the costs of collecting information about the brand for the purpose of making a consumption decision. Information-processing costs involve the costs of processing the gathered information for the purpose of evaluating the brand. Shugan [44, 45] exemplified information-processing costs, which he termed "the cost of thinking," as related to: (1) the number of alternative brands available on a consumption occasion, and (2) the average difficulty of comparing any two available brands. Simply speaking, a decision that demands little effort in information processing should be made easily and quickly because it involves only a few easy attribute comparisons.

Other than a direct relationship with CSBE, the trialability of an Internet banking service brand is also proposed to have an indirect impact on CSBE by mediating the information costs associated with the brand. This reasoning is consistent with the premise that direct consumer experience with a brand is effective in getting to know the brand. Specifically, consumers' past experience with a brand has been shown to cut down the search [46]. It has been proposed that actual consumption, a direct way of experiencing a brand, may be the least expensive search mechanism in many situations [47]. As Ratchford [48] contends, "information on brand performance obtained from past use experience is a form of information capital that would seem particularly likely to cut down search and lead to brand loyalty" (p. 409). This effect is more obvious if the experience is pleasant. In the Internet context, however, consumers are faced with countless unfamiliar alternative brands with which they have no actual consumption experience. They may only obtain consumption experience from service trials. A highly trialable service brand makes the

brand easier to try and the costs of evaluation lower, especially in service categories in which the evaluation involves actual trying of the brand [49]. Internet banking services belong to one such category. Through a highly trialable service demonstration of an Internet banking brand, potential consumers can go through the exact procedures of how certain financial transactions would have to be carried out had they used that brand's service. Through the interactions with an Internet banking service brand's service demo, consumers can easily gather information about the brand. In addition, with real personal experience, consumers can quickly and easily process the gathered information and, thus develop an idea of what the Internet banking service brand provides. Therefore, it is hypothesized that:

- H4: The level of trialability of an Internet banking service brand positively affects the level of savings in the information-gathering costs associated with that brand.
- H5: The level of trialability of an Internet banking service brand positively affects the level of savings in the information-processing costs associated with that brand.

Savings in the information-gathering and processing costs associated with an Internet banking service brand imply a reduction in uncertainties about the true attribute levels of a brand. As uncertainty about the value an attribute provides is incorporated in the subjective value a consumer assigns to that attribute of the brand [30], the savings in the information-gathering and processing costs are likely to enhance the perceived benefits of the brand (Figure 1).

Past research on consumer decision making and choice behavior provide both theoretical and empirical evidence on the relationship between information costs related to a brand and the benefits the attributes of the brand provide, as perceived by the consumer [50]. These studies assume that a consumer undergoes a two-stage process in reaching a consumption decision. In the first stage of the process, the consumer forms a consideration set from all available alternative brands. Hauser and Wernerfelt [49] formally show that brands with lower information-gathering and processing costs are more likely to be included in the consideration set. This result has been empirically supported by a subsequent study [51]. This is an important step in altering the perceived benefits of a brand, as a consumer will consider and assign a value to a brand only if it is included in the consideration set.

In the second stage of the decision-making process, the consumer examines all the alternative brands in the consideration set in detail. However, it has been experimentally shown that in considering an alternative brand a consumer usually examines only a subset of available information in arriving at a purchase decision [52]. A consumer only chooses the optimal alternative brand based on the limited information gathered and processed. In other words, the easier it is to collect and process information about a service brand in the consideration set, the more a consumer knows about the brand and, hence, the higher the chance that the brand would be picked by the consumer. In addition, it has been shown that when the costs for a consumer to gather and process information about a service brand are lowered, the quality and, thus, the benefits of the service brand become more apparent to the consumer before consumption [47].

Because banking is an experience- and credence-attribute dominant service, the savings in the information-gathering and processing costs of an Internet banking service brand can be substantial. Hence, we propose that:

H6: The level of savings in the information-gathering costs associated with an Internet banking service brand positively affects the level of perceived benefits of that brand.

H7: The level of savings in the information-processing costs associated with an Internet banking service brand positively affects the level of perceived benefits of that brand.

RESEARCH METHODOLOGY

We used a laboratory experiment approach in assessing the research model depicted in Figure 1. We adopted this approach for the purpose of measuring the differential change in the CSBE value due to the effects of personalization and trialability (a detailed discussion on the research design is given below). Subjects with Internet surfing experience and a basic level of banking needs participated in the experiment and were remunerated HK\$100 (approximately US\$12). Subjects were regarded to have “basic banking needs” if they made the following transactions at least three times a month regardless of transaction channels:

1. account balance enquiry;
2. cash deposit/withdrawal or check deposit;
3. fund transfer between accounts held within the same or other banks;
4. bill payment; or
5. deposit rates enquiry.

This study uses a standard about banking needs that was slightly higher than merely having a bank account, in that subjects would be in need of banking services and, thus would have an incentive to browse through the Internet banking service brand’s online service demo and complete the experiment in due course.

The online service demos of two Internet banks whose personalization and trialability levels differed substantially were used in the experiment. To qualify for participation in the experiment, subjects could not have had prior experience in using the services of the two chosen Internet banking service brands. Because the mechanism of CSBE development depicted in the research model is mainly based on the process of consumer decision making, this criterion was imposed to ensure that most of the information subjects had about the Internet banking service brands under investigation was gathered and processed based on trying out the online service demo.

Research Design

Subjects were randomly assigned to one of two chosen Internet banking service brands at the start of the experiment. During the experiment, subjects were asked to (1) fill out a set of questionnaires, (2) read an instruction sheet, (3) try out an Internet banking service brand’s online service demo within a 30-minute interval, and (4) fill out another set of questionnaires. The first set of questionnaires measured subjects’ banking needs and perceptions about the Internet banking service brand under investigation. Past research examining how consumers evaluate unfamiliar brands proposed that evaluations of unfamiliar choice alternatives are formed by assigning discounted (by perceived dispersion) average values to the unknown attributes of that alternative [27]. Consequently, depending on the number of unfamiliar attributes, the value of an unfamiliar brand assigned by

consumers should fluctuate between the true value of the brand (when all the attributes are known) and a value that is slightly lower than the market average (when all the attributes are unknown). Hence, the more attributes of the Internet banking service brand that are unfamiliar to a subject, the more likely that the subject would assign a CSBE value that is slightly lower than the market average before demonstration tryout.

Subjects were given an instruction sheet after filling out the first set of questionnaires. In the instruction sheet, subjects were asked to imagine that they had banking accounts in the bank to which they were assigned and were about to make certain banking transactions. They had to decide whether to conduct these transactions online or offline. However, because they had no prior experience with the Internet banking brand, they were allowed to try out the bank's service demonstration before making the decision. As mentioned earlier, a substantial part of the research model is built on literature in consumer decision making. Specifying the research context to involve the process of decision making is legitimate in testing the proposed research model. After reading the instruction sheet, subjects were given 30 minutes to try out the Internet banking service brand's online demo. (The instruction sheet is given in the Appendix.) Finally, subjects were given the second set of questionnaires after the tryout, which captured the updated overall brand value, perceived level of the brand's personalization and trialability, and demographic information. Consequently, the changes in CSBE due to the effect of service personalization and trialability, which were experienced by the subjects during the 30-minute trial, could thus be obtained (items measuring CSBE value are discussed below).

Operationalization of Measures

Two sets of questionnaires were developed to be the instruments for data collection. Personalization and trialability measures were adapted from the studies by Chau and Lai [53] and Moore and Benbasat [54], respectively. Items measuring perceived benefits were derived from a study in *Consumer Reports* [55] that reported the important attributes of Internet banking services. Modifications were made to adjust these attributes into benefits that were valued by consumers. Two items were developed for measuring information on gathering cost savings. Items measuring information-processing cost savings were derived from Shugan [44, 45], who stated that such costs in a choice decision between two brands were related to the difficulty of comparing the attributes of these brands. A choice decision with high savings in information-processing costs should involve only a few easy comparisons of brand attributes, and be quick and easy. Items were thus derived based on this conceptualization. All items were modified to reflect the Internet banking service context and were measured with a seven-point Likert scale, anchoring from strongly disagree to strongly agree. These items were all tested in a pilot test and demonstrated acceptable reliability (α ranges from 0.80 to 0.97).

Although existing literature provides a number of methods for measuring consumer-based brand equity (i.e., CBE [9–13, 32, 56]), none is tailored to branded services. Kamakura and Russell [9], for example, developed a method of measuring brand equity using actual purchase data obtained from scanner panel data. However, as the data are aggregated at the brand level, the value individual consumers assign to the brand cannot be determined. Alternatively, conjoint analysis is often used in measuring CBE [32, 56]. Conjoint analysis may yield too many alternatives, with some of them unrealistic. In addition, this method is applicable to high-value products only, in which the cost of

making a wrong decision is high. Alternatively, Park and Srinivasan [10] took the view that brand equity is an individual's subjective preference for the brand not explained by objectively measured product attributes. They estimated a brand's CBE as the difference between consumers' overall brand preference, and their multi-attributed brand preference based on objectively measured attribute levels. While this method is applicable to both branded goods and branded services, it runs the risk of omitting important service attributes.

A review of past studies provides diverse methods for measuring CBE, and each has its own merits and shortcomings. However, these methods, in one way or another, measure the value of a brand as the "additional" value to its product. Abela [57] argued that an "additive" approach to measuring CSBE may be inappropriate. Consumers regard services as "a bundle of benefits" with all the offerings a whole. Complete separation of brand attributes from branded services may be impossible, especially for such services that mainly "sell" brand experience (e.g., theme parks, movies, etc.). Therefore, to measure the brand equity of services accurately, Abela proposed that an inclusive approach—that is, measuring the value of a service brand as a whole—is preferable to the additive approach. Nonetheless, as CSBE can be regarded as the value of a branded service not explained by its objectively measured attributes, CSBE value measured by these methods may be confounded with the true value of important brand attributes.

From the definition proposed, Aaker [22] recognized that brand equity is a relative concept. When measured objectively, the value of a branded product should be positive (i.e., an asset) when it is above the average of the value of its current counterparts in the market. Conversely, when this value is negative when compared with its counterparts, it becomes a liability to the brand. Thus, in the operationalization of CSBE, this study takes the approach that the CSBE value of a brand is reflected in comparison with its counterparts currently available in the marketplace. This measurement approach is consistent with Park and Srinivasan's [10] approach, in which they incorporate a relative measure in devising a method of measuring brand equity.

Therefore, two items were developed to measure the value of an Internet banking service brand as a whole. In order to incorporate the relative concept of brand equity, these two items measured the value of an Internet banking service brand compared with other Internet banking service brands. They were measured by a seven-point Likert scale that anchored from poor to excellent. Moreover, these two items were used to measure brand value twice—once before and once after the service trial. By doing so, the differential change in the brand value would then be the CSBE of the brand due to consumer experience with the brand during the service trial. This measurement method enjoys the benefit of canceling out the value of the brand due to objectively measured attributes. The resultant differential value is therefore the CSBE value related to the effects of service personalization and trialability experienced in the course of service trial. These two items, together with all other developed items, are listed in Table 1.

DATA ANALYSIS AND RESULTS

Sample Characteristics

In the formal experimental study, a total of 15 experimental sessions were held in Hong Kong. One hundred and seventy-one sets of data were collected, which were all complete and usable for data analysis. All respondents had Web-surfing experience and

Table 1 Scale Items Used in the Study.

Construct	Measure	Source
CSBE		Self-developed
CSBE1	Compared with other local brands that provide Internet banking services, what do you think about this brand?	
CSBE2	On average, how good do you think this brand is in providing you value?	
Perceived benefits		[55]
PB1	Using this brand, I have high control over my banking activities and finances.	
PB2	This brand saves me time in managing my finances.	
PB3	It is convenient to manage my finances using this brand.	
PB4	This brand provides me with a comprehensive coverage of services.	
Personalization		[53]
PER1	This brand enables me to customize the content of information on its Web site according to my personal needs.	
PER2	This brand enables the bank to deliver personalized messages to me.	
PER3	This brand enables me to customize the presentation of information on its Web site according to my personal needs.	
Trialability		[54]
TRI1	During the demo, I could try out various functions of this brand.	
TRI2	This brand was available to me to adequately test run various functions.	
TRI3	Before deciding whether to use this brand, I was able to properly try it out.	
Information-gathering cost savings		Self-developed
INGA4	I have a better understanding on what this brand is after trying out the demonstration.	
INGA5	I find myself more familiar with the functions of this brand after trying out the demonstration.	
Information-processing cost savings		[44, 45]
INPRO1	I have come up with this decision quickly.	
INPRO2	I have come up with this decision easily.	

Note: CSBE = consumer-based service brand equity; PB = perceived benefits; PER = personalization; TRI = trialability; INGA = information-gathering cost savings; INPRO = information-processing cost savings.

had been assessed to have basic banking needs. The majority of the respondents fell into the age group of 18 to 25 years (159, 93%) and had tertiary degrees or above (154, 90%). This relatively young respondent profile is, in fact, in line with other Internet user and Internet banking studies conducted in Singapore, a city that is comparable with Hong Kong. In a study on the usage and perceptions of the Internet, Teo and Lim [58] found that the majority of Internet users were youths (less than 21 years old, 22.5%) and young adults (21 to 30 years old, 56.6%). Moreover, 74% of respondents in Tan and Teo's [59] Internet banking adoption study were younger than 29 years old. Although the respondent profile of the present study may not match perfectly with other similar studies, it is not

expected to be substantially different from the Internet banking user profile in Hong Kong. In addition, the distribution of gender was quite balanced, with 71 (42%) male subjects. While the majority of the subjects were students, some of them worked in a variety of occupations, such as insurance agents, clerical officers, and salespersons.

Analysis of Measurement Model

The overall goodness-of-fit of the measurement model to the data collected in the laboratory experiment was assessed by a confirmatory factor analysis using LISREL 8.30. Six common model fit measures were used to assess the measurement model's overall goodness-of-fit: chi-square/degree of freedom, goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), nonnormed fit index (NNFI), comparative fit index (CFI), and standardized root mean square residual (SRMSR). The chi-square statistic was not included because of its sensitivity with the sample size and the potential pitfall of indicating a good fit between the hypothesized model and the observed data when in fact both were inadequate [60]. The observed values were 1.25, 0.92, 0.88, 0.97, 0.97, and 0.046, respectively, and all of them surpassed the corresponding recommended minimum thresholds. This indicates that collected data exhibits a good fit with the hypothesized model.

The measurement model was assessed for construct reliability. There are three common ways to assess the construct reliability of a measurement model: (1) item reliability, (2) Cronbach's alpha, and (3) composite reliability. Table 2 summarizes the values of these three measures of the six constructs in the research model. All except four items, CSBE2, PB4, PER2, and TRI3, surpassed the item reliability minimum threshold of 0.50; three of the items were self-developed items and not validated in previous research studies. The four items that did not surpass the reliability threshold had item reliabilities ranging from 0.4225 to 0.4489, a bit lower than the suggested 0.50 threshold. As an empirical study with half of its constructs measured by self-developed scale items, results are deemed to be acceptable. Reliability at the construct level was satisfactory. The Cronbach alphas of the six constructs ranged from 0.70 to 0.93, whereas their composite reliabilities ranged from 0.71 to 0.93. These values all met the recommended minimum threshold, 0.7 [61], indicating sufficient construct reliability.

Construct validity of the measurement model was assessed in terms of convergent and discriminant validity. Convergent validity was assessed by factor loading of the scale items and the average variance extracted from the model's constructs. A factor loading of 0.70 or higher is considered significant and as evidence of convergent validity. Shown in Table 2, 4 of 16 items had factor loadings that were lower than the 0.70 cutoff value, with factor loadings ranging from 0.65 to 0.69. Although a few scale items did not pass the factor loading threshold, they were deemed to be acceptable because (1) these items had factor loadings of 0.50 or higher and (2) some other items measuring the same construct as these items had higher factor loadings [62]. For the average variance extracted measure, a score of 0.50 or higher is regarded as a demonstration of convergent validity [60]. With the exception of trialability, which extracted 49% of the variance, all the constructs reached an average variance extracted value of above 0.50. The measurement model is said to demonstrate sufficient, although not very good, convergent validity.

The discriminant validity of the measurement model was assessed by comparing the shared variance between any two constructs and the average variance extracted from all constructs (Table 3). For the measurement model to demonstrate sufficient discriminant

Table 2 Summary of Measurement Scales.

Construct	Item Reliability	Cronbach's Alpha	Composite Reliability	Factor Loading	Average Variance Extracted
CSBE					
CSBE1	0.6561	0.70	0.71	0.81	0.55
CSBE2	0.4489			0.67	
Perceived benefits					
PB1	0.5184	0.81	0.82	0.72	0.58
PB2	0.5329			0.73	
PB3	0.64			0.80	
PB4	0.4356			0.66	
Personalization					
PER1	0.5476	0.76	0.76	0.74	0.52
PER2	0.4761			0.69	
PER3	0.5329			0.73	
Trialability					
TRI1	0.5329	0.74	0.74	0.73	0.49
TRI2	0.5041			0.71	
TRI3	0.4225			0.65	
Information-gathering cost savings					
INGA4	0.6084	0.79	0.80	0.78	0.67
INGA5	0.7225			0.85	
Information-processing cost savings					
INPRO1	0.8464	0.93	0.93	0.92	0.87
INPRO2	0.8836			0.94	

Note: CSBE = consumer-based service brand equity; PB = perceived benefits; PER = personalization; TRI = trialability; INGA = information-gathering cost savings; INPRO = information-processing cost savings.

Table 3 Variance Extracted.

Construct	CSBE	PB	PER	TRI	INGA	INPRO
CSBE	0.55					
PB	0.27	0.58				
PER	0.25	0.34	0.52			
TRI	0.38	0.17	0.36	0.49		
INGA	0.19	0.38	0.07	0.32	0.67	
INPRO	0.04	0.07	0.03	0.00	0.00	0.87

Note: Diagonals represent the average variance extracted. Other entries represent the shared variance between two constructs. CSBE = Consumer-based service brand equity; PB = perceived benefits; PER = personalization; TRI = trialability; INGA = information-gathering cost savings; INPRO = information-processing cost savings.

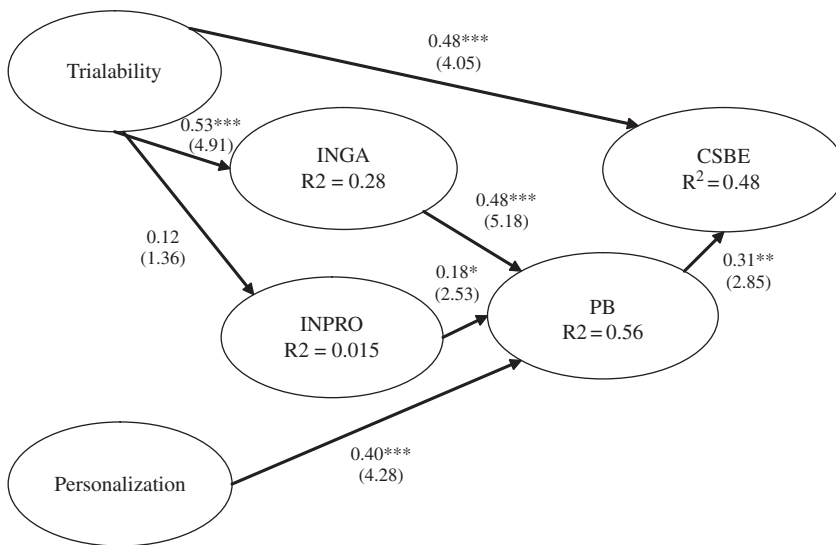
validity, the shared variance between any two constructs should be less than the average variance extracted from each of the two constructs. As shown in Table 3, the shared variance between the constructs ranged from 0.00 to 0.38, whereas the average variance extracted from constructs ranged from 0.49 to 0.87. Therefore, the measures were found to demonstrate discriminant validity.

Analysis of Structural Model

As in the case for the measurement model, the overall goodness-of-fit of the collected data with the proposed structural model was assessed by the six model fit measures used to assess the measurement model. The values of these measures are presented in Figure 2. As all the values of the six measures were above the respective measures' common acceptance levels, the structural model was said to demonstrate a good fit with the collected data.

The explanatory power of the research model was examined using the resultant R^2 (percentage of variance explained) for each of the dependent variables. As shown in Figure 2, the analysis results suggested that the model was capable of explaining 48% of the variance in the CSBE of an Internet banking service brand. In addition, information-gathering and processing cost savings and personalization accounted for a total of 56% of observed variance in perceived benefits. While trialability explained 28% of the variance in information-gathering cost savings, it was only accountable for 1.5% of variance in information-processing cost savings.

The significance and relative strengths of individual links specified by the structural model were also evaluated and are shown in Figure 2. Two observations are made here. First, most postulated paths were found to be significant. In particular, six of seven paths were significant at different significance levels. Second, most of the significant paths had



Path coefficient:	Chi-square/d.f.	= 1.27
	GFI	= 0.92
* $p < .05$;	AGFI	= 0.88
** $p < .01$;	NNFI	= 0.97
*** $p < .001$	CFI	= 0.97
	SRMSR	= 0.052

Figure 2 Results of the model test. INGA = information-gathering cost savings; INPRO = information-processing cost savings; PB = perceived benefits; CSBE = consumer-based service brand equity; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NNFI = nonnorm fit index; CFI = comparative fit index; SRMSR = standardized root mean square residual.

relatively high statistical significance levels, with four of six paths significant at the .001 level.

The two independent variables, trialability and personalization, were found to have significant effects on the development of CSBE. The significance and strengths of the individual paths are summarized in Table 4(a) and the effects of individual factors on CSBE are presented in Table 4(b). Specifically, personalization was found to have a positive and significant effect on perceived benefits which, in turn, significantly influenced the development of CSBE of an Internet banking service brand, with standardized path coefficients of 0.40 and 0.31, respectively. Trialability appeared to have both a direct and an indirect effect on the development of CSBE. While it had a significant, positive direct

Table 4(a) Significance and Strengths of Individual Paths.

Hypothesis	Path Coefficient
H1: PB → CSBE	0.31**
H2: PER → PB	0.40***
H3: TRI → CSBE	0.48***
H4: TRI → INGA	0.53***
H5: TRI → INPRO	0.12
H6: INGA → PB	0.48***
H7: INPRO → PB	0.18*

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.
 CSBE = consumer-based service brand equity; PB = perceived benefits; PER = personalization; TRI = trialability; INGA = information-gathering cost savings; INPRO = information-processing cost savings.

Table 4(b) Strengths of Individual Factors.

Effect on CSBE	Effect Size
Direct Effect	
PB	0.31
TRI	0.48
Indirect Effect	
PER	0.12
TRI	0.09
INGA	0.15
INPRO	0.06
Total Effect	
PB	0.31
PER	0.12
TRI	0.57
INGA	0.15
INPRO	0.06

Note: CSBE = consumer-based service brand equity; PB = perceived benefits; PER = personalization; TRI = trialability; INGA = information-gathering cost savings; INPRO = information-processing cost savings.

effect on CSBE, with a path coefficient of 0.48, it was also a significant determinant of information-gathering cost savings. The effects of information-gathering cost savings on perceived benefits were also significant. Combining the direct and indirect effects of trialability on CSBE resulted in an overall effect of 0.57. Although trialability was also postulated to have a positive effect on information-processing cost savings which, in turn, were proposed to positively affect perceived benefits, only the latter hypothesized path was found to be statistically significant. Thus, except for Hypothesis 5, all other hypotheses were supported.

DISCUSSION

With six of seven causal links specified by the model found to be supported and to have exhibited relative strengths, this section discusses the results by examining the effects made by the two independent variables—personalization and trialability—separately.

Effect of Personalization

In past studies, personalization of product/service offerings has been proposed to provide benefits to consumers [36, 38]. This study tested this proposition in the Internet banking context. In essence, the finding here is consistent with the fact that banks that provide personalization features to consumers are ranked higher than their counterparts without the provision of such features [63].

According to the results of this study, personalization of Internet banking services does not contribute to the development of CSBE by itself. However, it has a significant impact on the perceived benefits of the Internet banking service brand which, in turn, positively affects the CSBE of the brand. The findings provide empirical support for the proposition that the perceived benefits of an Internet banking service brand have a significant positive direct effect on its CSBE, which has been inferred from a number of past studies [17, 33, 34]. That means that when the benefits provided by an Internet banking service brand become evident to consumers, the impact on its CSBE development is expected to be salient.

Effects of Trialability

Results of this study suggest that trialability of an Internet banking service brand might be the single most significant contributor to CSBE. Trialability not only directly raises an Internet banking service brand's CSBE, but also indirectly influences the CSBE value by promoting the savings in the information-gathering costs associated with the brand and then the perceived benefits of the brand.

Direct Effect of Trialability. Our finding that the trialability of an Internet banking service brand has a direct and positive effect on CSBE development is consistent with the arguments made by other researchers [19, 20, 42], in which the provision of trials is effective in building a strong brand with the consumer. In addition to providing empirical support for this argument, this result also highlights the importance of trialability in building an Internet banking service brand in the minds of potential consumers. This can be revealed from the large path coefficient (0.48, $p < .001$) from trialability to CSBE.

Indirect Effects of Trialability. As expected, trialability was found to have a significant impact on information-gathering cost savings, which, by itself, significantly influenced the perceived benefits of the brand. However, the insignificance of the path from trialability to information-processing cost savings is unexpected. This result may be related to the characteristics of Internet banking services.

Generally, services are characterized as experience- and credence-attribute dominated [18]. In particular, Internet banking service is believed to carry more experience attributes than credence attributes. For example, the quality of and thus benefits provided by most service features of an Internet banking service brand (e.g., fund transfer, bill payment, and stock trading) are evident to consumers only after using the brand itself. The importance of the fact that Internet banking service carries many experience attributes lies in the effectiveness of using service trials to collect information about the service. Consumers can, in the course of trying out the brand, collect substantial brand information from which the benefits provided by the brand can be determined. As consumers can simply get to know the service that is dominated by experience attributes by trying out the service, the process of getting to know an Internet banking service brand from trials should not demand much cognitive load. In other words, the process of experiencing an Internet banking service brand, whose attributes are mostly understood through experience, should not involve much information-processing work. This provides an explanation to the finding that the trialability of an Internet banking service brand significantly increased the savings in the information-gathering, but not the information-processing costs associated with the brand.

Another finding of this study is that both information-gathering and information-processing cost savings associated with an Internet banking service brand in the course of making a consumption decision have a significant positive impact on the perceived benefits of the brand. This result provides empirical support for existing consumer choice models, which state that uncertainty about the attribute levels of a brand is incorporated in the value that the brand provides [44, 45]. As the collection and processing of brand information is a way of lowering the uncertainty associated with an Internet banking service brand, savings in the costs of collecting and processing of brand information are helpful in enhancing the brand's perceived benefits. The results of this study provide empirical support for this argument.

LIMITATIONS

This study, like all studies, has several limitations. First, although student subjects were not the intended subject pool of this study, the majority of respondents were full-time college students. Researchers have raised concerns about the use of student subjects in research studies because students may differ systematically from the general target population in general about their perceptions of the phenomenon of interest. In fact, the major objective of the present study was to empirically test a service brand research model that is applicable in the Internet context. In theory-testing research, Hunt [64] argued that the use of student subjects is appropriate when these subjects have variances to be explained by the proposed research model. As mentioned earlier, the target population of this research study was consumers who had basic banking needs and Web-surfing experience. These criteria were checked upon subject registration, as well as at the start of every experimental session, to ensure subject eligibility. Moreover, these criteria had also been reviewed during the data input process to make sure that only those data points

from eligible subjects were included in the data pool for analysis. Therefore, although the majority of the subjects were college students, they also all belong to the target population under investigation. Thus, these subjects' occupation as students is not believed to be the cause of systematic differences, if any, between the subject pool and the target population.

Second, the dependent variable, CSBE, was measured twice in a single laboratory experiment. This may cause pretest sensitization, in which the changes in the value of CSBE assigned by subjects may not be due to the treatment, but simply to remeasurement [65]. For instance, history (the emergence factors that influenced the second measurement of CSBE between the times of the two measurements were taken) and maturation (change or growth in CSBE or other related bodies, such as age and education level, by themselves) are the main causes underlying pretest sensitization. However, in our laboratory experiment, the time period between the two measurements of CSBE was set to be 30 minutes, a comparatively short period of time for history and maturation to come into effect. Thus, the effect due to pretest sensitization is believed not to be substantial enough to influence the value of CSBE.

Third, personalization of service is one important effect examined in this research study. In fact, personalization is a complicated construct. Depending on the perspective from which it is viewed, personalization is believed to bring about different effects in different contexts. For example, in Internet banking services, personalization can be classified into exogenous and endogenous personalization and can be related to that of the service or the service hosting Web site. Specifically, this study examined the effect of exogenous service personalization on the development of CSBE of Internet banking services. The generalizability of the results of this research study, therefore, may be limited to service personalization employing an exogenous process mechanism.

CONCLUSIONS

As the commercialization of the Internet has been changing the ways service brands are marketed, an examination of how CSBE can be developed via this medium becomes increasingly important. Focusing on Internet banking service brands, the present study examined the development of CSBE via the Internet in potential consumers. Based on the past literature on brand equity and Internet commerce, factors that were theoretically justified to influence CSBE development in the Internet context were identified and incorporated in a research model, which was empirically examined by using over 170 data points collected in a laboratory experiment. Results obtained from the structural equation modeling analysis indicate that the research model exhibited a satisfactory overall fit to the collected data and was capable of explaining the enhancement from CSBE. Six of seven hypotheses were supported. In particular, personalization was found to have a positive and significant influence on CSBE development of an Internet banking service brand by mediating the perceived benefits of the brand. While trialability was found to directly contribute to the enhancement of CSBE of an Internet banking service brand, it also exerted an indirect effect through the mediation of information-gathering cost savings and then the perceived benefits of the brand. These findings provide useful insights into the use of the Internet in CSBE development.

Implications for Research

Although there have been many brand equity development studies, most address the case of branded goods and rarely do they touch on that of branded services. Moreover,

with the commercialization of the Internet, the proper use of this hypermedia, computer-mediated environment for the development of brand equity is yet to be determined. Taking Internet banking service as a starting point, this study developed and empirically validated a service brand model applicable in the Internet context. In fact, the effective deployment of the Internet for different purposes has been receiving much attention from IS researchers. This study has broadened existing understanding on the use of the Internet to new aspects. The applicability of this service brand model to other Internet services, nevertheless, calls for further examination and validation.

Personalization is one of the independent variables in the research model proposed in this study, which specifically examined the effect of exogenous service personalization on the development in an Internet banking service brand's CSBE. Although it is also fully expected that endogenous personalization, when done in the right way, has the same direction of effect as that of exogenous personalization on the CSBE of Web services, this proposition is not tested here. Future research directed to this issue, which involves the work of redefining and operationalizing personalization to reflect the endogenous process mechanism, would contribute to our understanding on the effect of endogenous, as opposed to exogenous, personalization on CSBE development.

This study was explicitly designed to accommodate the notion of consumer learning in the development of CSBE. For instance, the CSBE of an Internet banking service brand was obtained by measuring the differential attitudinal change in the consumer's perception of the brand's value in a 30-minute timeframe. In other words, the consumer learning process is believed to be ongoing. Revision of the CSBE value of the Internet banking service brand is unlikely to cease after the 30-minute service demo trial. However, even if the effects of personalization and trialability were well beyond the 30-minute interval, such effects are not supposed to affect the experimental results much, if at all. The detection of a significant change in the CSBE value within such a short interval reveals that the effects of personalization and trialability on CSBE development are, indeed, strong. In fact, Postma and Brokke [38] found that personalization has a cumulative effect over time. Therefore, a longitudinal study in this area of research would contribute to our understanding on the cumulative effects of trialability and personalization on the development of CSBE.

The results of this study were obtained from responses collected in a laboratory experiment in which subjects were specifically asked to try out an Internet banking service brand's online service demo. In other words, this research study leaves the question of how to attract subjects to try out the online service demonstration of an Internet banking service brand unanswered. Giving out a service trial free of charge may not be a strong enough incentive to encourage potential consumers to consider a brand. Past research studies have ascertained the positive effects of advertising on brand equity development [13, 32], but these studies may fail to recognize the integrative effects of different brand-building activities. In particular, when one brand-building activity, such as the provision of a free service trial, is effective in enhancing the CSBE value of a service brand, other brand-building activities should be sought to arouse potential consumers' interests in trying out the service trial. Although past studies have examined the integrative effects of trials and advertising [66, 67], these studies are related to branded goods rather than to branded services. Moreover, these studies were conducted in the days when the Internet was not a common means of communication as well as a channel for conducting business activities. Consequently, the integrative effect of brand-building activities conducted via different channels is an area that requires more attention by researchers in the days to come.

Finally, the two independent variables, personalization and trialability, accounted for a total of 48% of the variance in the dependent variable CSBE. However, the remaining 52% of the variance is still unidentified. The use of the Internet as a channel for brand building has not been exploited fully. As this study is one of the very first to examine the use of the Internet in CSBE development, it can serve as a starting point for future research for the identification of other contributing factors. In this connection, Cobb-Warlgren et al. [32] and Yoo et al. [13] have found that advertising spending had a direct relationship with the level of brand equity. However, as consumers become active information seekers over the Internet, side attractions (e.g., advertising) are less seductive as they are in other traditional channels [21]. The salience of advertising on brand equity development in the service-Internet context requires further investigation. In addition, it seems that the identification of factors other than advertising that can contribute to the development of CSBE is another viable direction for future research.

Implications for Practice

The results of this study contribute new insights to the practical use of the Internet for service brand development. First, it provides empirical evidence on the viability of using the Internet for Internet banking service-brand building. As a medium of communication, the Internet has been substantiated to be effective in conveying Internet banking service brand information to potential consumers. This effectiveness has proved to bring about an enhancement of the perceived brand value in the minds of potential consumers (i.e., the CSBE of the brand). Compared to branded goods, what is known about brand building of branded services is relatively little. The results of this research study have provided empirical evidence to brand managers that the Internet is a medium as effective, if not more, than the other traditional channels in developing Internet banking service brands.

Second, the present study makes the positive effect of exogenous service personalization on the development of Internet banking service brands explicit in the Internet context. It is shown from this study that consumers value Internet banks with exogenous personalization capabilities: the more, the better. Consumers seem to enjoy the freedom of selecting the preferred service by themselves. In response to consumers' calls, Internet banks have recently been developing personalization technologies. The finding of this study provides a reason for brand managers to develop exogenous personalization technologies and provide them to consumers.

Third, the findings highlight the importance of trialability in promoting Internet banking service brands. Results of this research study show that trialability plays a significant role, both in direct and indirect terms, in Internet banking service-brand building. However, to actually use the service of an Internet banking service brand is not a prerequisite of building the brand's CSBE. Rather, simply trying out a service demo is sufficient for the enhancement of the brand's CSBE. The more trialable the service demonstration, the higher the level of enhancement in CSBE. Given that the cost of retaining a customer is lower than that of acquiring a new one, it is important that Internet banking includes the provision of a service trial in the Internet bank's Web site as a brand-building strategy.

Fourth, because of the potentially enormous realizable value of a service brand due to its CSBE, the development of CSBE is important for virtually all service providers. In other words, CSBE development is not the final objective for service providers. The supposition that CSBE leads to enhanced market performance (e.g., increased revenue,

increased price premium, and increased frequency of purchase or loyalty) makes CSBE development a legitimate and meaningful exercise. In this regard, the present study fails to complete the loop by investigating further the strength of relationship between the differential change in CSBE brought by personalization and trialability and the extent of market performance enhancement. Future research directed at this issue will provide useful insights to businesses.

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APPENDIX

The following are the instructions presented to the subjects in the laboratory study.

1. Background

Suppose that you have a checking and a savings account in Bank 1/Bank 2, and you are going to make the following financial transactions:

1. Checking the checking balance of your HKD checking account;
2. Checking the last 2 transactions of your HKD savings account;
3. Transferring \$200 from your HKD checking account to your HKD savings account;
4. Paying a bill of the value \$100 to the Food and Environmental Hygiene Department of the HKSAR;
5. Getting the stock quote of HSBC (0005.HK);
6. Studying the stock information available on the Web site such as charts, news, company information and analyses to help you make a trading decision.

2. Task

Now, you have to decide whether you would like to conduct these transactions online or offline (via the Internet vs. at bank branches / by phone, etc). However, since you are not familiar with the Internet banking services provided by [Bank 1 / Bank 2], (i.e., the brand name of the Internet banking service brand) services, you have to get familiar with its service before making your decision. Therefore, you are now given 30 minutes to get trial experience of the brand's services by going through the brand's service demo. You may:

1. Click on the shortcut on the desktop to launch Bank 1 / Bank 2's Web site.
2. Click "Demo."
3. Go through the demo by clicking "Next." You may also click "Previous" and / or "Rewind" to go back to any part of the demo you like.

3. Please Note

1. You may go through the demo as many times as you like.
2. You may jot down notes (e.g., how to make a fund transfer, the stock prices of a particular stock and its related market commentary, etc.) if you like.
3. Please work on your own.

4. At the end of the experimental session, you will be given a worksheet, which contains 10 simple questions regarding the service demo. If you correctly answer 7 or more questions on the worksheet, you will be automatically entered a lucky draw to win an extra HK\$500 cash award.

Therefore, you are advised to try your best to go through the service demo to become familiar with the service within 30 minutes.