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# Investigation of the Service Innovation of an Industry: Using iBeacon as an Example

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## ABSTRACT

Service quality and service innovation may not only reflect consumers' satisfaction but also their revisit intention. Studies have focused on improving products or old services on electronic commerce. However, this study focused on enterprises' service innovation on mobile commerce. We developed a model that examined the impact of using iBeacon service on consumers' satisfaction and revisit intention. The pretest questionnaire was issued on the Internet, and the results revealed that the questionnaire was reliable. We evaluated whether services provided by an enterprise using the iBeacon system satisfies consumers and affects their revisit intention.

**Keywords:** Mobile commerce, iBeacon, Service innovation.

## INTRODUCTION

### Research Background

Since the release of the iPhone 4 the world has entered into an era overrun with mobile devices, which are changing the lifestyle and purchase behavior of people. An eMarketer survey indicated that the number of people using smartphones reached 1.639 billion in 2014, and that that number was expected to reach 1.914 billion in 2015 and more than a quarter of the global population by 2016 [1].

According to a study conducted by Forrester Research Inc., online retail sales in the United States reached \$294 billion in 2014, of which 29% (\$87 billion) were conducted on mobile devices, including smartphones, tablets, and laptops. Approximately \$28 billion of those sales comprised device application purchases. Furthermore, 114 billion transactions were conducted using smartphones and tablets on electronic commerce (e-commerce) and mobile commerce (m-commerce) in 2014 [2].

A mobile shopping survey and analysis of Taiwanese people who use smartphones conducted by MIC in 2014 indicated that 62.5% of the users employed smartphones to make purchases on m-commerce sites [3]. In addition, the survey revealed that the consumers' browsing time on smartphones is increasing and that online shopping is gradually growing. Industries have used this opportunity to provide limited-time exclusive promotion offers and other sale programs, that shorten consumers' browsing time and provide additional discounts. This has led to the development of m-commerce, which also exerts external effects on the Internet. M-commerce is rapidly growing with an increase in the number of smartphones users. Therefore, we selected mobile devices as the research foundation for this study.

### Research Motivation

Studies have reported that enterprises increase consumer satisfaction by improving service quality and service innovation; in particular, the innovation and improvement of the marketing strategy and service quality can help consumers feel satisfied and thus be more willing to revisit these enterprises [6] [16]. Notably, consumer satisfaction depends heavily on their subjective attitude, and their perception of service quality is the difference between the expectation they have of an enterprise and the service that the enterprise actually provides [27].

The service innovation behavior of an enterprise is also an index of consumer satisfaction. Moreover, consumers consider the feelings they experienced while shopping and how effectively an enterprise presents its products to them; therefore, the service quality and service innovation of an enterprise are integral components of consumers' shopping experience, and influence consumers' shopping intention and revisit intention.

Traditional service innovation research has mostly focused on improving products or old services. During the period of e-commerce development, the marketing strategy of e-commerce greatly differed from that of offline commerce. Therefore, to keep pace with the time and satisfy consumers, companies should innovate their services. Companies evaluated changes that occurred in service innovation from offline commerce sites to e-commerce and m-commerce sites (e.g., online-to-online [O2O] service). The focus on service innovation has gradually increased. However, irrespective of traditional, e-commerce, or m-commerce environments, improving the service innovation of an enterprise is crucial for increasing consumers' satisfaction and their revisit intentions

Several studies have discussed service innovation; however, most of them focused on product improvement. By contrast, in this study we examined service innovation as a marketing strategy, an enterprise's technological service innovation on m-commerce. For example, many consumers use applications developed by enterprises that provide the iBeacon technological service through mobile devices in physical stores. We determined whether the iBeacon technological service influences consumers' satisfaction and increases their shopping and revisit intention. Furthermore, this study investigated whether service quality and service innovation influence consumers' revisit intention and satisfaction.

### Research Purpose

On the basis of the research background and motive, we observed that mobile devices are indispensable to consumers during shopping. Most scholars have focused on service innovation in traditional and e-commerce environments, and there is a dearth of research on m-commerce environments. Thus, we investigated the relationship among service innovation, service quality, and revisit intention according to the following research questions:

1. Does a company's service innovation directly affect customer satisfaction in an m-commerce environment?
2. Does a company's service quality directly affect customer satisfaction in an m-commerce environment?
3. Does a company's service innovation indirectly affect customer satisfaction through service quality in an m-commerce environment?
4. Does customer satisfaction affects revisit intention in an m-commerce environment?

## LITERATURE REVIEW

### Mobile Commerce

Modern wireless communication devices combine portability and wireless Internet, which are two key technologies that promote the growth of m-commerce. M-commerce is considered crucial for enterprises and consumers. Furthermore, devices such as personal digital assistants (PDAs) and smartphones [4] influence the work and consumption patterns of people, who use mobile devices rather than personal computers to trade or purchase items on the Internet. Although mobile devices are already widely used in m-commerce, increasing consumers' awareness and acceptance of m-commerce is vital. Moreover, the usefulness of new technology and whether it affects a user's acceptance of m-commerce remains unclear [7] [38]. In the past, researchers have considered m-commerce to be difficult and have explained it in various ways. Broadly speaking, m-commerce integrates values, transactions, and business processes. Overall, the use of mobile applications to perform transactions of goods and services through wireless Internet can be termed m-commerce [31].

Because e-commerce continuously affects the global commerce environment, the application of mobile computing and modern wireless Internet technologies [35] and the development of m-commerce are crucial. The true value of m-commerce is that it can provide substantial business opportunities; moreover, people can efficiently use m-commerce while trading. Therefore, m-commerce is considered to be the mobile version of e-commerce [37]. Ngai and Gunasekaran argued that m-commerce can be considered a subset of e-commerce, and that m-commerce inherits numerous functions from e-commerce [24]. Notably, any currency transaction that occurs through the mobile Internet is considered an m-commerce transaction.

Clarke [12] indicated that the benefits of m-commerce include ubiquity, convenience, localization, and personalization, which are defined as follows:

1. Ubiquity: Users can receive messages and transactions anywhere with mobile devices; thus, the use of m-commerce can occur everywhere.
2. Convenience: Mobile users are not limited by time or space, and can instantly send and receive messages and execute trades anytime and anywhere. Convenience is one of the primary differences between e-commerce and m-commerce because some things cannot be processed in e-commerce until users have free time on a wired device.
3. Localization: No particular location is necessary to perform m-commerce tasks. This is one of the crucial characteristics of mobile devices and is one of the reasons why m-commerce is more advantageous than e-commerce. In addition, location-based service is one of the popular services in m-commerce. For example, Walgreens, the largest chain of pharmacies in the United States, partnered with Foursquare to detect a user's current location and then automatically send electronic coupons to the user's mobile phone when they entered Walgreens [8].
4. Personalization: Compared with e-commerce, m-commerce is more personalized and only one user can use a single mobile device. Data mining analysis is performed to understand users' needs and habits, and accordingly send advertisements to interested users at the right time.

E-commerce and m-commerce also have several common features; for example, business transactions can be performed using the Internet in both formats. However, the communication mode and Internet access devices required in e-commerce differ from those required in m-commerce. For example, communication in e-commerce is carried out using wired equipment, whereas communication in m-commerce is conducted through a wireless network connection. With regard to types of Internet access devices, desktop and notebook computers linked to the Internet are used in e-commerce, whereas PDAs and smartphones are used in m-commerce.

## Service Innovation

The concept of innovation was first proposed by the economist Schumpeter [32], who believed that innovation is the driving force of economic growth. He also argued that innovation is the effective use of resources as well as new processes or production methods to meet the needs of the market.

Service innovation can be used in a new service, to improve an existing service, or to enhance organizational benefits [34]. In addition, service innovation can promote performance and provide adequate benefits to customers, enhancing their perceived value. Two constructs make up service innovation. The first is the type of benefit offered, which provides a new core benefit and provides a core benefit as a new path of transmission; the second is the degree of service separability, which indicates the services that can be used at different times and places, and considers service innovation to be incremental [5].

Overall, service innovation is the result of improved service response to customers with a diversification of needs, which thereby increases the value of an enterprise's products and services [36]. Enterprises can launch exclusive applications and request that consumers download them from application stores such as Google Play; subsequently, consumers can browse a company's products in their free time and easily purchase desired products online. However, companies also attempt to attract these online shopping customers to their physical stores. Thus, they use O2O services to inform consumers about product promotions that are only in the physical stores to encourage consumers to visit.

Enterprises are also concerned about timely informing the customers who browse in their physical stores about their discounts on products, because if a company sends an employee on a one-to-one service, labor costs can increase. Since the invention of the iBeacon technology, many companies have applied it to develop new services.

iBeacon is the one of the service innovation technologies currently used in the retail industry. The iBeacon technology uses low-power Bluetooth technology to create a radius signal area on the iBeacon device. Once a customer enters the set area with a mobile device they can receive a range of information provided by the company, including discounts and limited-time promotions.

For example, the leading U.S. retailer Macy's has started deploying iBeacon sensors; customers were satisfied with the new technology and its convenience because they could receive information instantly, irrespective of the floor they were on or the shop they were in. In short, iBeacon provides more possibilities for enhancing retail services. Because mobile devices are personal products, iBeacon could provide a more personalized retail service experience in the future.

Most retailers are well aware of their old service deficiencies and are willing to improve the quality of their services. Thus, retailers strive to improve their service processes to not only provide a wealth of experience and value to target and potential consumers but also understand their ideas and core needs in order to provide perceived valuable services.

When retailers focus on service innovation, they not only gain a competitive advantage but also enjoy sustainable development [39]. Service innovation is initially based on consumers' thoughts. Therefore, retailers aim to understand consumers' demands and accordingly provide them the information they require by using advanced technology. Consumer satisfaction increases when they realize the effort being exerted by retailers; hence, the value of retailers' efforts is equivalent to customer satisfaction. Therefore, we proposed the following hypothesis:

H1: Service innovation positively influences consumer satisfaction in the m-commerce environment.

The emphasis on service innovation can help the industry gain a competitive advantage, upgrade its service quality, and maintain positive customer relations [13]. Stauss, B., et al. emphasized the importance of technological innovation, and proposed that the service innovation model contains six types of dimensions and uses a dynamic capabilities view (DCV) to manage the service innovation of an industry [33]. Their results revealed that service innovation can improve service quality. If an industry improves the way they serve their customers and provides more creative ideas, customers can judge the service quality of an industry and thus develop a positive attitude toward that industry. This can reduce the difference between the expectations of consumers from an industry and the services actually provided by the industry [27]. Therefore, we proposed the following hypothesis:

H2: Service innovation positively influences service quality in the m-commerce environment.

## Service Quality

Levitt contended that service quality is the result of services provided by an industry, and that it should effectively conform with the standards expected by consumers [22]. Furthermore, Olshavsky indicated that service quality is an overall assessment of that services provided by an industry and regarded it as an attitude of enterprises [26]. In 1985, Parasuraman evaluated four service industries and conducted an in-depth focus group interview with the staff of credit card companies, banks, securities brokers, and product maintenance companies. He reported that service quality is the gap between the expectations of consumers from an enterprise, and the services actually provided by the enterprise. In addition, he developed a conceptual

model of service quality called the PZB model. This model was named after three scholars, and includes the following ten service quality determinants: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibility [27].

Parasuraman compiled the results of service quality research and developed the SERVQUAL service quality scale [28]. This scale has been widely cited and recommended by numerous scholars and can be used to solve various practical problems. Parasuraman used the 10 determinants of the PZB model to develop the SERVQUAL scale. This scale can effectively measure service quality and has established a reference pattern for follow-up scholars. In contrast to the PZB model, the SERVQUAL scale includes only the following five service quality determinants: reliability, tangibility, responsiveness, assurance, and empathy.

The SERVQUAL scale has been verified and cited in studies on the traditional service industry. With the widespread prevalence of the Internet in the late 1990s, the focus of consumers has shifted from the traditional offline service industry to the online e-commerce industry because of the advantages of the e-commerce industry over the traditional service industry. Services provided by the e-commerce industry were not considered in the SERVQUAL scale. Therefore, many researchers have attempted to improve the scale.

In 2005, on the basis of studies using the SERVQUAL scale, Parasuraman conducted an empirical study and used Amazon and Walmart to establish two service quality-related scales for e-commerce websites: the multiple-item e-service quality (E-S-QUAL) scale and the e-recovery service quality (E-RecS-QUAL) scale. The E-S-QUAL scale evaluates e-commerce quality using four constructs: efficiency, fulfillment, system availability, and privacy. By contrast, the E-RecS-QUAL scale examines emergency situations not frequently encountered by consumers, such as technical difficulties experienced on e-commerce websites or responding to the delivery of defective products that need to be replaced and where customers require compensation [29].

Kuo et al. indicated that Telecom service providers' content quality, system quality, and visual design of mobile value-added services can affect users' satisfaction and purchase intention [20]. In the above situation conforms to this study want to understand industry using iBeacon service. Service quality positively affects consumers' experiences and expectations of mobile services, and further increases their satisfaction [21] [40]. Thus, we proposed the following hypothesis:

H3: Service quality positively influences satisfaction in the m-commerce environment.

### **Satisfaction**

Consumer satisfaction is the difference between consumers' shopping experiences and expectations, and its overall assessment includes service system, effectiveness, service personnel behavior, and professional knowledge provided by an industry [11]. Satisfaction depends on whether a product conforms to consumers' demands [9]. As Koltler and Armstrong reported, satisfaction is consumers' expectation of and psychological awareness regarding a product [19]; this awareness is the difference between consumer expectation and the actual service provided by an industry [25].

Churchill Jr. and Surprenant evaluated the perspectives of different scholars and concluded that the following four factors influence consumer satisfaction [11]:

1. **Expectation:** The expectation consumers have about a product before purchase; consumers already have expectations of a product and then determine whether the product conforms to their expectations.
2. **Performance:** The quality of the product after purchase; this perception is often compared with expectations before purchase.
3. **Disconfirmation:** The difference between consumers' expectations and experiences after purchase. This difference has three possible outcomes: experience and expectation matches, the experience is worse than the expectation; or the experience is better than the expectation.
4. **Satisfaction:** The overall attitude of consumers to the product after purchase. If the experience is higher than the expectation, consumer satisfaction is high; however, if the experience is lower than the expectation, consumer satisfaction is low.

### **Revisit Intention**

Revisit intention is considered the result of satisfaction [6]. In this study, revisit intention refers to customers' desire to visit a particular store again. Several studies have similarly expressed revisit intention as customer loyalty. The effective strategy to make a customer visit again is to maintain a high degree of customer expectation or provide more than expected customer services [17]. Jang and Feng [16] conducted a study on tourism to examine whether revisit intention is related to satisfaction. They confirmed that customer satisfaction affects their short-term, but not mid- or long-term, revisit intention. Several other studies have reported that customer satisfaction positively affects revisit intention [14] [18] [30].

For an industry, retaining old customers is more cost effective than developing new customers. An innovative service can be used to inform customers about a retailer's effort. Moreover, high consumer satisfaction can increase revisit intention. Therefore, we proposed the following hypothesis:

H4: Satisfaction positively influences revisit intention in the m-commerce environment.

## RESEARCH METHODOLOGY

In this study, a research framework on the basis of the literature review is proposed. The operational definition of the research framework and hypotheses is as follows:

### Research Framework

The effect of service innovation and service quality on consumer satisfaction and revisit intention were investigated in this study, as outlined in Figure 1.

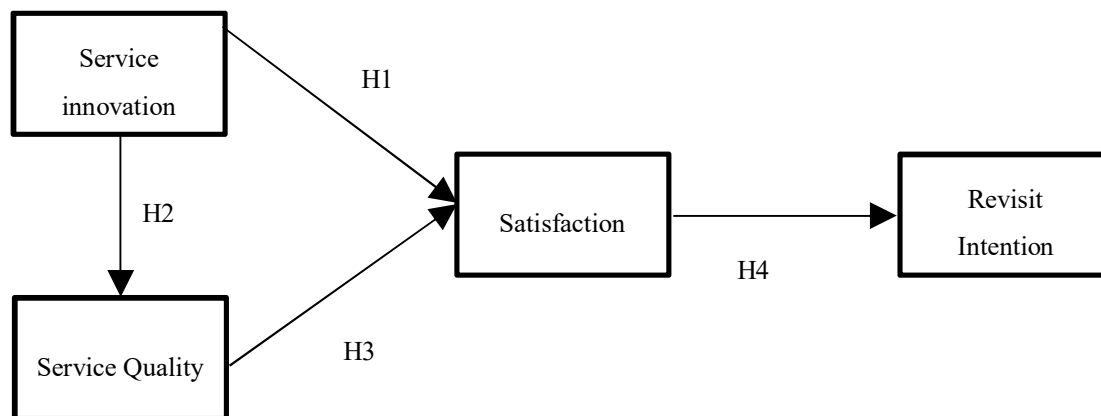


Figure 1: Research framework

### Operational Definitions of Study Variables

A multiple-choice questionnaire containing five study variables (i.e., service innovation, service quality, satisfaction, revisit intention, and personal information) was used. The responses of the questionnaire were measured on a 5-point Likert scale, with scores ranging from 1 (strongly disagree) to 5 (strongly agree).

#### Service Innovation

Sundbo's views of service innovation were adopted for this study [34]. For retailers, using a one-to-one service requires many employees and is thus not cost effective. Therefore, the iBeacon technology can be used to improve existing services, increase retailers' revenues, and improve operational performance. Therefore, service innovation was operationally defined as the use of a new service or improvement in an existing service to increase organizational benefits.

To measure consumers' perception of service innovation, four items used by Hinnant [15] were adopted for our questionnaire and modified to conform to our study objectives.

#### Service Quality

Parasuraman's views of service quality were adopted for this study [29]. If a retailer makes an effort in managing the application of service and diligently interacts with consumers, consumers feel a positive attitude toward the service of the retailer. Therefore, service quality was operationally defined as In addition to infrastructure on m-commerce website, the additional cognitive of services to customer on m-commerce.

The service quality of the iBeacon technology provided by retailers was explored in our questionnaire using the E-S-QUAL scale developed by Parasuraman [29] in 2005. Although the iBeacon service is related to Bluetooth technology, whereas the Parasuraman scale is related to the context of e-commerce, the E-S-QUAL scale (which includes four constructs, namely efficiency, fulfillment, system availability, and privacy) explored the situations similarly to the iBeacon service.

By contrast, the service quality of customer contact service personnel for return of goods, compensation, and other services was evaluated by the E-RecS-QUAL scale. The iBeacon service does not include return- and compensation-related concerns, and only recommends contacting service personnel in case of problems.

Thus, the four constructs of the E-S-QUAL scale and the single construct of the E-RecS-QUAL scale (contact) were adopted for the present study.

### **Satisfaction**

Churchill Jr. and Surprenant's views of satisfaction were adopted for this study [11]. For consumers, the actual experience retailers' service innovation and service quality. Consumers have expectations about a service provided by a particular retailer depending on their previous practical experience; therefore, consumer satisfaction can be operationally defined as the difference between the shopping expectation of consumers and the services actually provided by enterprises, including service systems, efficiency, service attitude, and professional knowledge.

Items used by three researchers were included in our questionnaire following modification to conform with our study to measure consumers' perception of satisfaction [10] [23] [40].

### **Revisit Intention**

Finally, Kim's views on revisit intention were adopted for this study [18]. Consumers are willing to patronize a store again because their prior service equals or exceeds consumer expectations. Therefore, revisit intention can be operationally defined as customers' willingness to revisit.

In addition, questionnaire items used by Jang and Feng [16] to evaluate whether consumers are willing to visit a company again in the future were adopted here; specifically, the revisit intention items were divided into short-, mid-, and long-term revisit intentions.

The operational definitions of the constructs are presented in Table 1.

Table 1: Operational definition of variables.

Construct	Operational definition
Service Innovation	The use of a new service or improvement in an existing service to increase organizational benefits.
Service Quality	In addition to infrastructure on mobile commerce website, the additional Cognitive of services to customer on mobile commerce.
Satisfaction	The difference between the shopping expectation of consumers and the services actually provided by enterprises, including service systems, efficiency, service attitude, and professional knowledge.
Revisit Intention	Customer's willingness to revisit.

## **DATA ANALYSIS**

### **Pretesting**

We included items in the questionnaire according to the literature review and research framework (see Appendix), and these items were measured quantitatively. Specifically, items that have demonstrated reliability and validity in previous studies were used, although we appropriately adjusted the content of the items according to our research purposes. For example, we adjusted the number of questions on the basis of participants' tolerable range to reduce their displeasure. Additionally, a pretest before the release of the formal questionnaire was conducted to determine the appropriate adjustment for the items. Because we included civilians as participants, the survey was conducted by posting a link to the web questionnaire on the PTT Bulletin Board System and on social media. After the questionnaires were returned, inappropriate samples, which included questionnaires that had low standard scores and the questionnaires of users who never used the iBeacon service, were excluded. In total, 77 respondents completed the questionnaire and 60 (77.9%) questionnaires were used. Following exclusion, the responses of the questionnaires were quantitatively analyzed using SPSS software (version 18) to confirm the structure of the measurement scale. The Kaiser–Meyer–Olkin (KMO) test provided a KMO score of  $> 0.7$ , and Bartlett's sphericity test results were significant. In addition, factors were extracted using the principal component analysis, and varimax rotation was used as the rotation method. Finally, the factor structure of each construct was established and the factor loadings that were less than 0.4 or greater than 0.4 on two or more factors were deleted.

### **Sampling Data**

As noted, pretest questionnaires were collected from 77 respondents. After screening and exclusion, 60 valid questionnaires were included in our research. Of the respondents, 24 (40%) were men and 36 (60%) were women. Nearly 45% and 30% of the respondents were aged between 21 and 25 years, and between 26 and 30 years, respectively, and approximately half of the respondents were students. Table 2 presents a summary of the demographic descriptive statistics of the participants.

Table 2: Demographic descriptive statistics

Measure	Option	Frequency	Rate (%)
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Gender	Male	24	40%
	Female	36	60%
Age	Under 25 years old	9	15%
	21–25 years old	27	45%
	26–30 years old	17	28.3%
	31–35 years old	1	1.7%
	36–40 years old	5	8.3%
	41–45 years old	1	1.7%
	Senior high school	1	1.7%
Education level	Bachelor	51	85%
	Master	8	13.3%
	Student	32	53.3%
	Service industry	10	16.7%
Occupation	Administrative personnel	6	10%
	Computer/ engineering	2	3.3%
	Academic/ education	3	5%
	Sales/ marketing	2	3.3%
	Trade	1	1.7%
	Household industry	1	1.7%
	Unemployed	3	5%

### RESULT

The KMO score of service quality was 0.828, and the Bartlett's sphericity test results were significant (Table 3). We also performed exploratory factor analysis (EFA) on the pretest questionnaires and extracted two factors, and calculated a cumulative variance of 59.66% for service quality. As listed in Table 4, service quality extracted two factor separated. Efficiency and fulfillment constructs were extracted into the same factor, and contact and privacy constructs were extracted into the same factor. Thus, we speculated that the iBeacon can be applied in physical stores in the retail industry. Notably, efficiency and fulfillment was quite similar for consumers.

The KMO score of service innovation was 0.651, the Bartlett's sphericity test results were significant (Table 3), and the cumulative variance was 52.72%. Because the KMO score was almost 0.7 and was based on fewer samples; We still performed exploratory factor analysis (EFA) on the service innovation construct. The factor loadings of service innovation constructs are listed in Table 4.

The KMO score of satisfaction and revisit intention was  $>0.7$ , and Bartlett's sphericity test results for these two constructs were significant (Table 3). Furthermore, the cumulative variance of satisfaction and revisit intention was 62.53% and 70.76%, respectively. Our data indicate that satisfaction and revisit intention constructs are suitable for performing exploratory factor analysis. The factor loadings of all the constructs are listed in Table 4.

Table 3: Kaiser–Meyer–Olkin scores and Bartlett's sphericity test results

Construct	KMO	Bartlett	Cronbach's alpha
Service Innovation	.651	.000	.698
Service Quality	.828	.000	.903
Satisfaction	.757	.000	.846
Revisit Intention	.837	.000	.916

Table 4: Factor Loadings of Constructs

Construct	Items	Factor Loadings
Service Innovation	SI2	<b>.832</b>
	SI1	<b>.787</b>
	SI3	<b>.694</b>



	SI4	.562	
		Factor1	Factor2
Service Quality	EFF6	.808	
	EFF1	.804	
	EFF4	.761	
	FUL3	.758	.373
	FUL2	.716	.373
	SYS2	.643	.311
	FUL4	.595	
	SYS3	.489	
	PRI2		.840
	PRI1		.785
	CON3		.773
	CON2	.314	.694
	PRI3		.666
Satisfaction	SAT2	.869	
	SAT4	.817	
	SAT1	.802	
	SAT3	.729	
	SAT5	.726	
Revisit Intention	RI3	.900	
	RI6	.861	
	RI4	.842	
	RI5	.835	
	RI1	.816	
	RI2	.789	

#### EXPECTED CONTRIBUTION

In recent years, technology has changed the way people use electronic products. Because of the transition from desktops to mobile devices, and from simply browsing on websites to browsing on mobile websites, as well as the convenience of mobile devices, retailers have been encouraged to develop various innovative services. On the basis of the literature review, this study evaluated whether service innovation and service quality affects satisfaction and revisit intention among consumers using the iBeacon service.

We investigated whether consumers are satisfied with services provided by industries using the iBeacon system and whether their revisit intention is dependent on the degree of satisfaction. Mobile service providers can use our study results to change the manner in which they operate on m-commerce for fulfilling consumer expectations and improving the overall performance.

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#### APPENDIX

Construct		Item	Measurement
Service Innovation		SI1	In recent years, our company has improved already-existing service development processes with the iBeacon service.
		SI2	In recent years, our company has improved the efficiency and effectiveness of its service delivery according to organizational demand with the iBeacon service.
		SI3	In recent years, our company has improved the efficiency and effectiveness of service delivery based on the customer demand with the iBeacon service.
		SI4	In recent years, our company has facilitated new service development processes with the iBeacon service.
Service Quality	Efficiency	EFF1	The iBeacon service makes it easy to find what I need.
		EFF2	The iBeacon service enables me to complete a transaction quickly.
		EFF3	The promotional information provided through the iBeacon service is well organized.
		EFF4	The iBeacon service rapidly loads its promotes information.
		EFF5	The iBeacon service is simple to use.
		EFF6	The iBeacon service enables me to get on to it quickly.
System Availability	System	SYS1	The iBeacon service is always available for business.
		SYS2	The iBeacon service launches and runs right away.
		SYS3	The iBeacon service does not crash.
		SYS4	The information promoted on the iBeacon service does not freeze.

Construct (continuous)		Item	Measurement
Service Quality	Fulfillment	FUL1	The iBeacon service delivers promotes information when promised.
		FUL2	The iBeacon service makes promotes information available for delivery within a suitable time frame.
		FUL3	The iBeacon service rapidly delivers promotional information.
		FUL4	The iBeacon service sends out promotional information.
		FUL5	The iBeacon service is truthful about its promotional information.
		FUL6	The iBeacon service accurately provides product about promotes information.
	Privacy	PRI1	The iBeacon service protects information regarding my browsing behavior.
		PRI2	The iBeacon service does not share my personal information with other companies.
		PRI3	The iBeacon service protects my credit card information.
	Contact	CON1	The iBeacon service provides a telephone number to reach the company.
		CON2	The iBeacon service has customer service representatives available online.
		CON3	The iBeacon service offers the chance to speak live to a person in case of a problem.
Satisfaction		SAT1	I am satisfied with the value-added iBeacon service provided by this company.
		SAT2	I think this company has successfully provided the value-added iBeacon service.
		SAT3	This value-added iBeacon service is better than expected.
		SAT4	Using the iBeacon service has been a good experience.
		SAT5	I have truly enjoyed using the iBeacon service.
Revisit Intention	Short-term Revisit Intention	RI1	Revisit interest within 12 months.
		RI2	Revisit likelihood within 12 months.
	Mid-term Revisit Intention	RI3	Revisit interest within 3 years.
		RI4	Revisit likelihood within 3 years.
	Long-term Revisit Intention	RI5	Revisit interest within 5 years.
		RI6	Revisit likelihood within 5 years.