

IT 환경에 적용가능한 러브마크 개념의 소개 및 측정도구 개발

Introduction and Measurement Development of Lovemarks Construct in IT Context

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초 록

감성 또는 사랑의 관점에서 고객과 IT 브랜드 간의 관계를 이해하기 위해서는 브랜드 충성도를 넘어, IT 소비자를 정확히 이해하려는 연구가 요구된다. 본 연구는 소비자와 IT 브랜드 간의 감성적 관계를 설명하는 '러브마크' 개념을 소개하고 측정도구를 개발·검증한다. 연구결과 스마트폰 사용자들 대상으로 고차 확인적 요인 분석을 통해 러브마크를 구성하는 6가지 개념(신비감, 감각, 친밀감, 성과, 신뢰, 명성)과 18개 측정항목을 개발하였다. 그리고 러브마크가 브랜드 충성도보다 소비자와 IT 브랜드 간의 감성적 상호작용을 유효하게 설명하는 것으로 확인되었다.

ABSTRACT

Understanding the consumer-brand relationship in the IT market from the “emotional” or “love” perspective requires an urgent research effort to fully comprehend IT consumers beyond brand loyalty. This study introduces and attempts to empirically validate the concept and measurement of “Lovemarks,” which capture the emotional relationship between consumers and IT brands, especially smartphone brands. Having a second-order confirmatory factor analysis for three different smartphone brands, this study extracted 18 final items with six constructs of mysteriousness, sensuality, intimacy, performance, trust, and reputation. The results indicate that the Lovemarks are psychometrically valid and reliably measure the emotional interaction of consumers and IT brands beyond brand loyalty.

키워드 : 러브마크, IT 브랜드, 감성, 스마트폰, 브랜드-소비자 관계
Lovemarks, IT Products, Emotion, Smartphone, Brand-Consumer Relationship

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1. Introduction

Enhancing brand loyalty is important in building a long-term consumer-brand relationship. While the retention of customers is still a critical factor for success, the old approach of developing brand loyalty is not enough anymore [10]. Recent research from IBM indicates that customers have extreme fluctuations in brand loyalty, and there is weaker correlation between brand loyalty and repurchases than ever [10]. Nowadays, consumers prefer to purchase emotion-oriented products or services over those focusing on functionality or benefits [31, 38]. This changed consumers' preference weakens the importance of brand loyalty in customer management [10].

Companies should now make "Lovemarks" consumers are enthusiastic about a specific product or service in order to survive in fierce competition. Lovemarks is a new concept proposed as the alternative to brand loyalty and indicates strong emotional relationships between consumers and brands [39, 40]. While consumers have more choices than ever with IT development, their behavior in terms of brand choice is changing rapidly. Therefore, companies must keep customers within their brand by building Lovemarks, a strong emotional relationship [31, 38].

Actually, firms that understand emotional consumers and have formed Lovemarks in consumers' minds have achieved outstanding performance. For example, the iPhone has a

retention rate of about 89%, the highest rate among all smartphone brands [23]. This product also has the highest user satisfaction rate, at more than 70% among iPhone users [5]. Apple fans love the experience with iPhone, despite its functional defects compared to other smartphone brands. This shows that there are factors that encourage consumers' enthusiasm toward a specific brand besides product quality. Apple's advertising and communication has always focused on building an emotional connection with consumers, thus its greatness stems from its emotional brand marketing and business model focusing on product experience and satisfying consumers' emotional needs [37].

Studies on emotions in the marketing field have already examined consumers' and brands' emotional perspective, and the terms "brand love," "emotional brand," and "Lovemarks" have been variously applied [14, 50, 38].

However, the IT industry has neglected these concepts of love and emotion, and no studies have introduced and validated the concept of Lovemarks and its measurement in the IT industry thus far. Past studies related to consumers' emotions were limited to brand loyalty measuring their brand preferences, despite the large size of the IT product and service market. According to Gartner, worldwide IT spending is expected to reach \$3.9 trillion in 2015, and the IT market is one of the biggest worldwide [17]. The main place for business also moved to online and mobile stores, so online and mobile channels have become crucial for advertising

and communication. Moreover, since the quality levels of IT products and services are not as distinguishable as before, winning emotional bonds with consumers is a challenge for many IT providers [48]. Therefore, the IT field requires a study related to developing the Lovemarks measures to understand consumers' emotional connection with IT brands.

This study aims to explore the concept and measurement of "Lovemarks," which capture the emotional relationship between consumers and IT brands. This study specially focuses on smartphone brands to see the emotional connection with its users and thus examines users of three different smartphone brands for its validity test.

With the concept of Lovemarks suggested in this study, IT providers can better understand their customers and develop insights that they can use to differentiate themselves from their competitors. These research findings will lead to different studies into the emotional consumer-IT brand relationships.

2. Lovemarks Definition and Dimension

Today's customers seem to pay great attention to the emotion they obtain from a brand, and this emotional experience forms an intimate and constant relationship between customers and brands. Emotional brands are sometimes regarded as personal partners for customers

who want certain brands depending on their needs and cultural tendencies in terms of the strong relationship with the brand. Therefore, building the emotional relationship is critical to sustaining customers in the brand [19].

Roberts [39] asserted that brands perceived only for their image are not effective and competitive compared to brands that appeal to customers' emotions. Brands have been built simply by satisfying customers' needs, though they are now required to satisfy their desires and to match their experiences, emotions, and cultural needs. With this change in the brand concept, Kevin Roberts, Global CEO of Saatchi and Saatchi, first mentioned the term "Lovemarks" to express an emotional relationship with a brand. As illustrated in <Table 1>, Lovemarks are defined as brands that encourage a strong emotional bond between brands and customers and that encourage customers to love and respect the brand. The con-

<Table 1> Definitions of Lovemarks

Conceptual Definition	Reference
A lovemark is defined as a deep emotional connection that distinguishes a lovemark experience from a brand experience.	[39]
A lovemark is a product, service, or entity that inspires "loyalty beyond reason."	[38]
A lovemark is a brand to create associations for consumers that capture the dimensions of mystery, intimacy and sensuality, which leads to a combination of brand love and respect.	[9]

〈Table 2〉 Main Components and Sub-Dimensions of Lovemarks by Roberts(39)

Main components		Sub-dimensions
Love for brand	Deep emotional attachment consumers have with a certain brand	<ul style="list-style-type: none"> - Mysteriousness - Sensuality - Intimacy
Respect for brand	A positive perception consumers have towards a particular brand, based on evaluation of brand performance	<ul style="list-style-type: none"> - Performance - Trust - Reputation

cept also refers to a type of emotional attachment to products and services.

Lovemarks strengthens the emotional relationship between customers and brands and implies both love and respect that are maximized by an emotional bond to customers [38]. Roberts's [39] also stated that a lovemark is a combination of high brand love and respect, and it consists of six dimensions in two main components in prior studies: "Love" and "Respect" [9, 38, 39, 40]." Love" includes mysteriousness, sensuality, and intimacy and "Respect" contains performance, trust, and reputation like <Table 2>.

2.1 Love

Numerous studies have applied Sternberg's [44] triangular love theory to the consumer field and showed that the emotion of love can explain not only relationships between people but between customers and brands. Brand love refers to consumers' emotional attitudes and bonds to a brand [26], or the degree of passion and emotional attachment to a brand. The dimensions of love in Lovemarks includes: mys-

teriousness, sensuality, and intimacy

2.1.1 Mysteriousness

Mysteriousness is the strange and obscure feelings that consist of intuition, humor, and excitement. It includes five components [40]. First, mysteriousness has a brand story, which refers to all types of stories regarding a brand, such as a story in an advertisement, the brand's history, word of mouth, and news about the brand.

Second, mysteriousness connects the past, present, and future. Brand sustainability is an emotional bond to the brand value regardless of time and place. Third, mysteriousness consists of dreams and imagination. In the emotional consumption environment, customers tend to perceive a brand as a door to achieve and experience their dreams and fantasies.

Fourth, mysteriousness provides symbols and metaphors that evoke mythical illusions or icons that exist in consumers' consciousness or unconsciousness, such that customers can easily recognize a specific brand as a symbol. Lastly, mysteriousness provides inspiration, in terms of an inspiring action or influence by

people or things, or an inspired idea.

2.1.2 Sensuality

Sensuality refers to the feelings of the five senses—vision, hearing, smell, touch, and taste. Lovemarks can be created through the five senses [39] through sensory branding, an emotional reaction that triggers impulse buying and stimulates a brand and customer relationship [32]. It uses all customer contact points by stimulating the five senses to increase branding effects and loyalty. Sensory branding examples include the easy-listening music and wooden interiors of Starbucks, the unique Coca-Cola bottle, the crispy sounds and texture of Kellogg's corn flakes, the smell of a new Rolls Royce car, and patented perfume used by flight attendants in a Singapore Air airline cabin [40].

2.1.3 Intimacy

Intimacy means empathy, commitment, and passion with a close relationship and interpersonal understanding to disclose and share personal emotions [40]. Customers feel great intimacy with a brand that connects with a strong relationship, and this feeling is developed through brand experience and memories. For example, modern bookstores tend to develop intimacy with customers by providing chairs and coffee to make them feel like a friend. With a close bond and intimacy, customers can feel that they own a brand, and such a brand can

become a Lovemark. The relationships in Lovemarks consist of excitement, easiness, trust, and intimacy [39].

2.2 Respect

Respect is “to acknowledge someone with value” and admiration of others’ personalities, thoughts, and behaviors. Respect is an important factor in a relationship and self-identity, and is considered a key business success factor. Respect is the first stage in forming Lovemarks, and its dimensions consist of performance, trust, and reputation.

2.2.1 Performance

Performance is the perception of the brand's innovation, quality, service, identity, and value. Brand performance implies the unique features of a product or service that satisfies functional needs, such as product durability and convenience, or effectiveness and efficiency in services, and the levels of style and design [24]. Brands must create value by innovation [40], and quality is an important factor with which to assess brand performance [15].

2.2.2 Trust

Brand trust refers to customers' willingness to believe in a brand's level of capabilities [5, 6]. Trust develops through immersion and long-term relationships, and people perceive a higher shared value in a relationship with

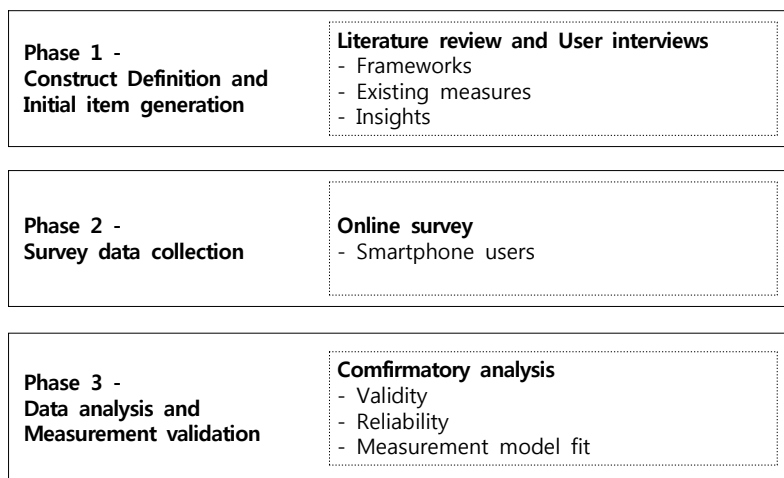
strong trust, further intensifying the relationship [35]. Moreover, trust creates a close relationship between customers and brands, and customers' emotions must constantly be provoked by trust [41].

2.2.3 Reputation

Reputation is a judgment by other groups related to some characteristic or ability. That is, a rational or emotional relationship is developed between brands and related parties that possess positive public images and distinct abilities compared to their competitors to satisfy customers [16]. Brand reputation implies customers' behaviors when deciding to re-purchase a product or service, and its effect varies regardless of product or service [46]. A good reputation can lead to a strong brand, and is often understood as something beyond a brand [22].

3. Lovemarks Measurement Development

We believe that smartphone is a good research context for our study, the smartphone usage in the world has been expanded at a rapid pace since the release of Apple's iPhone. According to one study, the penetration rate of global smartphone was 69% in 2016 [12]. So, we develop the measurement tools of Lovemarks construct with smartphone users. We used the sub-dimension of Lovemarks (Mysterious, Sensuality, Intimacy, Performance, Trust, Reputation) as the basic framework for developing measurement items. As shown in <Figure 1>, the three-phases were (1) construct definition and initial item generation, (2) survey data collection, and (3) data analysis and measurement validation.



<Figure 1> A Three-Phase Process of Measure Development and Validation

3.1 Phase 1: Construct Definition and Initial Item Generation

The six dimensions of Lovemarks as classi-

fied by Roberts [40] – mysteriousness, sense, intimacy, performance, trust, and reputation – were chosen as basic framework, and an initial pool of measurement items first developed

〈Table 3〉 Constructs and Measurement items

Construct	Items		Reference
Mysterious	MST1	There are lots of exciting stories regarding the brands.	[21, 26, 30, 39, 40, 49]
	MST2	I feel touched by the story about the brands.	
	MST3	This brand will get loved anywhere and anytime.	
	MST4	I can experience my dream and imagination through the brands.	
	MST5	The brand reminds me something I know.	
	MST6	I can feel mysterious about the brand.	
	MST7	I can feel excitement and emotion about the brand.	
	MST8	The brand possesses something unique.	
Sensuality	SEN1	The brand possesses a unique image stimulating five senses.	[21, 30, 39, 40]
	SEN2	I can express the brand through vision.	
	SEN3	I can express the brand through sounds.	
	SEN4	I can express the brand through smell.	
	SEN5	I can express the brand through touch.	
	SEN6	I can express the brand through taste.	
Intimacy	ITM1	I know a lot about the brand.	[1, 13, 21, 26, 30, 39, 40, 45, 49]
	ITM2	I understand the brand well.	
	ITM3	I feel intimate with the brand as I have known it for a long time.	
	ITM4	I have a lot in common with the brand.	
	ITM5	The brand reminds me of myself.	
	ITM6	The brand shows the image I desire.	
	ITM7	The brand well expresses the value of myself.	
	ITM8	I feel empty without the brand.	
	ITM9	I feel attracted by the brand.	
	ITM10	There is no substitute for the brand.	
	ITM11	I love the brand.	
	ITM12	I am fascinated by the brand.	
	ITM13	I feel happy thinking of the brand.	
	ITM14	I will support the brand regardless of any disappointment.	
Performance	RST1	I am satisfied with the high quality of the brand.	[18, 26, 30, 40, 55]
	RST2	The brand provides a great service.	
	RST3	The brand provides a new service that meets my needs.	
	RST4	It is worthwhile to purchase the brand.	
	RST5	I can use the brand without any inconvenience.	
	RST6	The brand is useful to me.	
Trust	TRS1	I can trust the brand.	[6, 26, 30, 40, 49]
	TRS2	I feel the brand has a high reputation.	
	TRS3	The brand has a strong commitment to its customers.	
Reputation	RPT1	My friends and family like the brand.	[26, 29, 30, 40, 42, 49]
	RPT2	The brand has a higher reputation than a comparative brand.	
	RPT3	I want others to know I am using the brand.	
	RPT4	The brand is popular.	

through literature reviews. In developing the measures, we adapted 41 relevant measures from previous studies related to the six dimensions of Lovemarks. Then, the initial measurement items were confirmed and modified through user interviews.

3.2 Phase 2: Survey Data Collection

An online survey based on Google Docs was conducted. The URL link was sent by e-mail or by instant messenger to 300 Korean smartphone users. The survey consists of items to measure users' awareness of smartphone brand they are using. To determine whether the respondents were users of smartphone, they were initially asked to note their smartphone brands. As a result, data from 58 people who did not check their smartphone brands were excluded and replies were gained from 242 users of three different smartphone brands, Apple, Samsung, and others. For an empirical verification of the Lovemark measurement, a survey of users of

three different smartphone brands, Apple, Samsung, and others, was conducted, yielding 215 samples after excluding 27 biased samples.

3.3 Phase 3: Data Analysis and Measurement Validation

The Lovemark measurement model was validated using a second-order confirmatory factor analysis and structural equation model using AMOS 18.0 [4, 25, 51]. Cronbach's alpha was used to measure internal consistency as a reliability test. The social sciences field generally recommends a value of Cronbach's alpha exceeding 0.6, and a value greater than 0.8 indicates high reliability [8]. Each construct meets the recommended criterion of Cronbach's alpha values (each exceeding 0.8); thus, all are considered reliable.

The confirmatory factor analysis was conducted to determine the validity of each latent variable, and according to which items with inadequate values were excluded. In this case,

〈Table 4〉 Respondents Characteristics by Smartphone Brand

Characteristics	Type	Frequency	(%)
Smartphone brand users are recently using (or have used) (SB)	Apple (iPhone series)	84	39.1
	Samsung (Galaxy series)	73	34.0
	others (LG, HTC, others)	58	26.9
Gender (SEX)	Male	132	61.4
	Female	83	38.6
Age (AGE)	< 20 years old	6	2.8
	20~30 years old	200	93
	> 40 years old	9	4.3
Total		215	100

18 items were selected out the 41 total measurement items. The AVE (average variance extracted) value was used to examine convergent validity for each construct. These values should be greater than 0.5 to be valid [8], which all constructs in this study met, showing that each item corresponding to the construct shows convergent validity.

〈Table 5〉 Construct Validity and Internal Consistency

Construct	Items	Cronbach's alpha	AVE
Mysterious	3	0.91	0.693
Sensuality	4	0.912	0.709
Intimacy	3	0.915	0.742
Performance	3	0.895	0.794
Trust	2	0.896	0.841
Reputation	3	0.907	0.815

To test the model fit, indices such as Chi-square (χ^2), Goodness of Fit (GFI), Adjusted GFI, and the Root Mean-square Residual (RMR) are used. Generally, model fit indices should be greater than 0.8, and the value of χ^2 divided by the degree of freedom should be

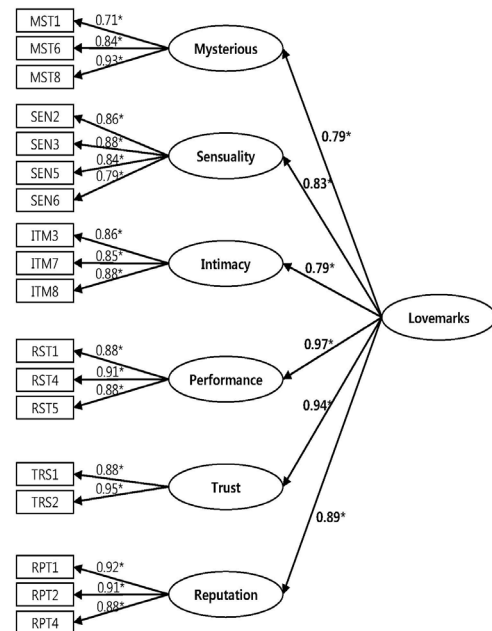
〈Table 6〉 Fit Indices for the Lovemarks Model

Fit Indices	Thresholds	Model
χ^2		177.4
(d.f.)	smaller	129
$\chi^2/\text{d.f.}$	< 3	1.38
CFI	> 0.90	0.986
AGFI	> 0.80	0.887
NFI	> 0.90	0.952
GFI	> 0.80	0.915

less than 3 [20]. The Lovemarks model fit indices met all of the recommended criteria.

Factor loading values for each measurement item and dimensions are ($p < 0.01$), and standardized loading values are greater than 0.8, confirming the convergent validity of each measurement item [28]. Additionally, the relationship between the measurement items and the first-order factors, and that between the first-order factors and the second-order factors were all significant.

In summary, 18 final items corresponding to six dimensions in the Lovemark measurements were extracted from the second-order confirmatory factor analysis.



Note) * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$,
N.S. = not significant at the 5% level.

〈Figure 2〉 Secondary Order Confirmatory Analysis

4. Post Analysis

4.1 Nomological Validity of Lovemarks and Brand Loyalty

4.1.1 Lovemarks and Brand Loyalty

The definition of brand loyalty varies, despite its considerable body of literature. Generally, it is divided into two approaches: the behavioral and the attitudinal approaches [27]. The behavioral approach measures brand loyalty in terms of consumers' actual purchasing behavior, responses to their purchasing behavior, and the purchase or repurchase rate. The attitudinal approach, on the other hand, is based on emotions and relationships measured in terms of customers' beliefs, preferences, and emotional commitment toward the brand. The attitudinal approach can measure psychological changes as brand loyalty develops [36].

Brand loyalty is consumers' faithful repurchases, regardless of the marketing pressure generated by competing brands [36, 54]. Brand loyalty increases product value, and is an important topic in marketing, especially as it can predict the possibility that a consumer will switch brands and can therefore be used to protect against competitive threats [47].

Brand loyalty results from repeated learning based on trust formed by experience. It is an amicable and immersed behavior related to a brand resulting in repeated learning whereby consumers continue purchasing the brand [2]

in the immersed stage without a complex decision-making process.

Compared to brand loyalty, Lovemarks refer to the emotional relationships between customers and brands as developed by brand love beyond loyalty and based on performance, innovation, reputation, and honesty. Loyalty can be created with higher respect, but loyalty beyond rational decisions is created by love [30], the key distinction between a Lovemark and brand loyalty [49]. Therefore, a Lovemark could include the brand loyalty concept, but is beyond it.

4.1.2 Repurchase Intention

Repurchase intention is the possibility to purchase a particular good or service again in the future [33, 43], indicating a planned future behavior that implies a probability occurring based on a person's beliefs and behaviors. The post-purchase behavioral pattern is closely related to product use or experiences as well as the customer's psychological and emotional status before purchasing the product.

As a result, repurchase intention is an important success factor in marketing strategies. In a study of repurchase intention for sport shoes, brand loyalty had a significant relationship with repurchase intention [1].

4.1.3 Recommendation Intention

More than 80% of customers' purchase behaviors are accrued by direct recommendations

from other customers, despite promotional activities such as mass advertising, and customers with a higher level of interest in a product or service have a greater effect on the word-of-mouth information than customers with a lower interest [49].

Several studies have investigated the concept of recommendation intention in the context of positive word-of-mouth advertising and customer loyalty, as these are considered important factors determining recommendation intention [1]. Moreover, brand loyalty built through customer satisfaction with a brand causes a positive behavioral intention and attitude toward the brand [3]. Customers with an emotional experience and satisfaction related to a brand tend to pass positive information through word-of-mouth communication, and customer loyalty increases repurchase intention [11].

4.1.4 Nomological Validity Test

Nomological validity of Lovemarks and brand loyalty were examined to show the discriminating value of Lovemark constructs and brand loyalty. Lovemark constructs are comparatively hypothesized to determine the effects on repurchase intention and recommendation intention constructs. Each construct returned Cronbach's alpha values exceeding 0.9, thus meeting the suggested cut-off for internal consistency criterion (> 0.6) and are thus reliable [8].

Brand loyalty was measured by the items drawn from number of researchers [14, 24, 36]. Most measurements on brand loyalty leaned to behavioral approach asking actual purchasing or repurchasing behavior, while few of items measured brand loyalty as attitudinal approach on customer's preferences and emo-

〈Table 7〉 Construct Validity and Internal Consistency

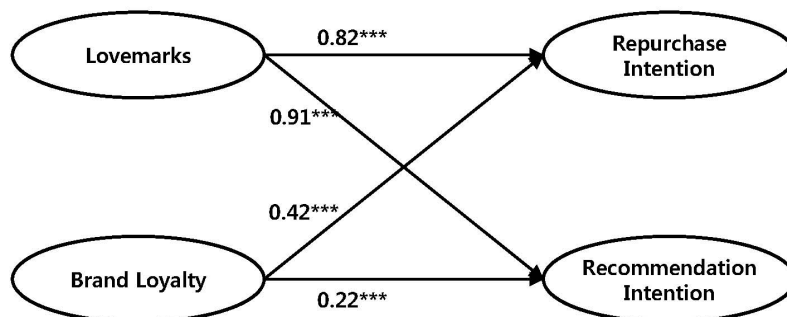
Construct	Items		Cronbach's alpha	Reference
Brand Loyalty	BL1	I have an attachment to the brand.	0.942	[14, 24]
	BL2	I feel friendly with the brand.		
	BL3	I feel a sense of belonging to the brand.		
	BL4	I enjoy buying the brand.		
	BL5	I think the brand is the best.		
Repurchase Intention	RPI1	If I buy a new smartphone, I will purchase it in same brand.	0.927	[44, 53]
	RPI2	I will purchase the brand I am currently using among different brands.		
Recommendation Intention	RCI1	I would like to recommend the brand to non-users.	0.922	[44]
	RCI2	I will tell other people the goodness of the brand.		
	RCI3	I will tell others my good experiences with the brand.		

tional commitment toward a related brand. As Oliver [36] pointed out that the attitudinal approach measured better for psychological process as being develop a brand royalty, we adopted the attitudinal measurement items to compare and contrast brand loyalty from the Lovemarks.

The results show that both Lovemarks and brand loyalty have a significant effect on repurchase and recommendation intentions, though with differing predictive power levels. The factor loading values for brand loyalty on repurchase intention and recommendation intention are 0.42 and 0.22, respectively, while the values for Lovemarks on both variables are 0.82 and 0.91, suggesting that brand loyalty has a lesser effect on the dependent variables compared to Lovemarks. This result implies that the predictive power of the Lovemarks measure, including dimensions for functional utility and reputation, as well as emotional performance such as mysteriousness and sensuality, is greater and more sophisticated than that of brand loyalty.

4.2 The impact of Lovemarks by Smartphone Brand

An additional analysis of Lovemarks by smartphone brand was conducted to examine brand differences in terms of Lovemarks and other constructs. Brands were categorized into three groups for a clear comparison of the Lovemarks level. Samsung and Apple smartphone brands, which are well known and have a superior market share worldwide, were tested separately, while other smartphone brands such as HTC and LG were grouped into one category. This categorization is adequate to examine the different effect of Lovemarks, as the brands are widely used and globally recognized [34]. The sample for Apple iPhone and Samsung Galaxy were 84 and 69, respectively, and that for the other brands, including HTC and LG, was 62 out of a total of 215 samples. The mean value of the main research variables – Lovemarks, brand loyalty, repurchase intention, and recommendation intention – for



Note) * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, N.S. = not significant at the 5% level.

〈Figure 3〉 Standardized factor loadings for Lovemarks and Brand Loyalty

〈Table 8〉 The Mean Value of Constructs by Smartphone Brand

Construct		Apple	Samsung	Others	F
Lovemarks	Mysterious	5.54	3.71	3.69	60.958**
	Sensuality	5.62	4.61	4.56	33.823**
	Intimacy	4.68	3.54	3.55	14.781**
	Performance	5.52	4.40	4.41	22.163**
	Trust	5.41	4.54	4.56	11.774**
	Reputation	5.86	4.85	4.85	17.307**
	Total	5.44	4.28	4.27	28.491**
Brand Loyalty		5.17	4.29	3.48	39.191**
Repurchase Intention		5.76	4.33	3.62	29.130**
Recommendation Intention		5.5	4.28	3.83	62.789**

* $p < 0.01$.

each smartphone brand was examined using ANOVA analysis with SPSS 19.0 to compare the differences among the brands.

The results of ANOVA analysis showed that all constructs are significantly different among the smartphone brands. Apple showed a higher mean value than Samsung and other brands for all constructs. Moreover, repurchase intention appeared distinctly higher for Apple than for the other brands. This result is similar to other results for the iPhone, in that its retention rate is much greater (near 90%) than other smartphone brands [23], and indicates that Apple seems to focus on emotional features such as mysteriousness and sensuality for the product and brand compared to other smartphone brands.

5. Results

This study attempted to introduce the

Lovemarks construct in the IT context to capture the emotional connection with IT brands focusing on smartphone brands. The results of a second-order confirmatory factor analysis extracted 18 final items for Lovemark measurements corresponding to the six dimensions of mysteriousness, sensuality, intimacy, performance, trust, and reputation. This study's empirical analysis showed that the six dimensions of Lovemarks are psychometrically valid and reliably capture the emotional interaction of customers and IT brands. Moreover, Lovemarks and brand loyalty are significantly distinctive in that Lovemarks have a greater effect on repurchase and recommendation intentions than the traditional consumer-brand relationship measurement, brand loyalty.

The measurement of brand royalty was criticized in that the behavioral approaches of measurements might focus more on the consequences of customers' purchasing behavior than the process and context of customers' de-

cision making for purchasing the brand [36]. In other words, brand royalty consisted simple measures of brand preference or attachment and thus could not effectively estimate an emotional aspect of purchasing the brand. However, the measurement items of Lovemarks showed detailed considerations on emotional feelings toward the brand such as mysterious, sensuality and intimacy. The constructs of Lovemarks can measure customers' emotional process as a brand loyalty develops. Therefore, different from brand royalty, the Lovemarks can explain better to how customers feel about the brand and how customers are into the brand to repurchase it without rational thinking [2, 40, 52]. Thus, this study showed that the Lovemarks become the powerful tool to measure and predict customers' attitude to the brand.

The additional analysis of Lovemarks for three smartphone brands showed that all dimensions for Lovemarks appeared significantly different among the brands. Apple had high values on all Lovemark dimensions, especially on mysteriousness and sensuality, which represent a brand's emotional impact. This result clearly demonstrated that Apple is better acknowledged for its emotional branding that differentiates itself from its competitors and contributes to their success.

6. Implications

The research findings encourage research

to understand how IT brands build emotional relationships with consumers by offering a construct of and measures for Lovemarks. Because an emotional approach to consumers is critical for IT products and services and the information and communications technology market is growing rapidly, there is an urgent need for more studies into emotional IT branding. However, since previous studies related to branding were limited to brand loyalty, which focuses on customers' repurchase behaviors, there was a limited understanding of the emotional relationships between consumers and IT brands and high need to develop construct explicating new consumer preference for IT brand.

This study firstly introduced Lovemarks construct and developed its measurement tools in information system (IS) field. By providing the measurement of Lovemarks, we can exactly understand enthusiastic customers for IT brand and establish new consumer-IT brand relationships from the emotional perspective. And also, this study subdivided Lovemarks into six sub-dimensions (mysteriousness, sensuality, intimacy, performance, trust, reputation), so we can specifically analyze the effective approach to forming the emotional relationship with customers in accordance with research context.

This study has a number of practical implications. First, this study introduces the construct, Lovemarks, and applies it to the IT context by examining smartphone brands. The

number of smartphone consumers has increased dramatically, and some seem to be faithful and even addicted to a specific brand, seemingly because they feel “love” and “respect” for the brand beyond brand loyalty and trust [41]. The Lovemarks construct can capture such emotional feelings toward IT brands and can be applied to many other IT markets to examine the emotional and psychological perspective. For example, Lovemarks can be used to verify user satisfaction or repurchase intention in e-commerce to determine consumers’ emotional satisfaction with the relationship. Studies on personal and organizational relationships with social media and information systems also can be examined with Lovemarks.

Second, this study shows a clear comparison between Lovemarks and brand loyalty, and suggests that Lovemarks are a better predictive construct to assess consumers’ experiences and emotion. Some Lovemark dimensions also imply brand loyalty dimensions, such as intimacy and trust, though Lovemarks go beyond brand loyalty and thus be a strong measurement of the brand. In other words, consumers are inspired more by a strong emotional bond with brands beyond brand loyalty. Therefore, IT brand managers and marketers should consider building Lovemarks through offering emotional experience at all customer encounters.

Third, these research findings suggest a practical implication for IT providers looking to profit by enhancing emotional aspects. IT

providers can use the Lovemarks construct to understand the source of consumers’ physical or emotional attachment to IT products and services, and can develop insights to deliver a differentiated and personalized user experience. Using Lovemarks, IT providers can produce products and services that encourage an emotional connection between brands and customers.

Overall, Lovemarks extend the measurement of a customer-brand relationship beyond brand loyalty and customer satisfaction. By incorporating the concept of Lovemarks and its measurement, IT providers and marketers can understand and capture more about customers’ emotional and psychological needs and better explore the emotional relationship between consumers and brands.

7. Limitations

This study has several limitations. First, although the items in the Lovemarks measure were extracted based on previous research, the study of emotional relationships between brands and customers is still in the early stages, and other items related to emotion may not be included in the Lovemark measure. Future research could further evolve and refine the measurement items. In addition, the Lovemark measurements would also apply to not only other digital appliances such as laptop computers but other products such as automobile

so that the Lovemarks would be able to apply in general marketing strategy.

Second, many different smartphone brands should be examined to test the Lovemark measurements. However, the samples used in this study were collected in Korea, where the reputation and performance of Samsung as a brand is already acknowledged, so the results of Lovemark measurement tests may be different from those in this study. Therefore, the Lovemark measurement suggested in this study should be tested with various brands in different countries. Moreover, brand preference for smartphone can be different by users' personality and characteristics, the future study would examine the relationship of Lovemarks to different smartphone brands according to users' gender, personality and characteristics.

Third, various analytic approaches should be used to verify the Lovemarks measurement. For example, qualitative research including observations and in-depth interviews is suggested along with surveys.

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