I. Introduction

With the continuously growing popularity of social media, most leading retail brands have established and been operating their channels in famous social media sites such as Facebook, Instagram, and YouTube (Clement, 2020). These accounts, which are also called as brand pages, are used strategically by many beauty and cosmetics brands to provide consumers with useful and informative content, to create a unique brand personality, and to interact with consumers (Influencer Marketing Hub, 2019). Increasing number of consumers acquire information about beauty and cosmetics from social media, while brands strive to build connections with their consumers using brand pages on social media (Valentine, 2019). How to effectively operate brands pages is imperative especially in beauty and cosmetic marketing as they serve as major brands-consumer interaction venues as well as primary shopping and researching tools for millennials with rapidly rising purchasing power (Paiz, 2020). According to Neustar, 54% of millennials consider mobile as the most important shopping research tool followed by 31% for desktop, 8% for TV and 7% for print media (Paiz, 2020).

To successfully operate brand pages, brands strive to facilitate consumer engagement (Eckstein, 2018). Engagement, defined as a “psychological state that occurs by virtue of interactive, cocreative customer experien-
ces with a focal agent/object (e.g., a brand) in focal service relationships” (Brodie et al., 2011, p. 260), has gained great attention in both academia and industry. Studies have shown that engaged consumers exhibit positive responses that are even beyond transactional activities such as loyalty, trust, commitment, and sharing with other users (Brodie et al., 2013; de Silva, 2019; Halaszovich & Nel, 2017; Kuo & Feng, 2013; Piehler et al., 2019; Vivek et al., 2012; Wirtz et al., 2013; Zhang et al., 2017; Zhou et al., 2013). Thus, engagement contributes to the success of a brand (eMarketer, 2015; Verhagen et al., 2015).

This study specifically focuses on consumer engagement with brand pages on social media. Compared to the literature exploring consumer engagement with a brand as a focal object (Ahn & Back, 2018; Apenes Sollem, 2016; J. Bowden, 2009; Halaszovich & Nel, 2017; Harrigan et al., 2018; L. Hollebeek, 2011; Hollebeek et al., 2014; Mollen & Wilson, 2010; So et al., 2016; van Doorn et al., 2010; Vivek et al., 2012), relatively little research has studied engagement with a brand page in social media (Dessart, 2017; Gómez et al., 2019) perhaps because of the relative newness of social media as a marketing channel. Following Brodie et al.’s (2011) definition, brand page engagement is defined as a consumer’s psychological states resulting from his/her interactive experience with a brand page on social media. According to Sprout Social 2019 Index, 83% of Facebook users and 90% of Instagram users use and follow brand pages. Given that a growing number of consumers are being connected to social media and following brand pages (Zote, 2020), enhancing brand page engagement has become an important issue to practitioners (Eckstein, 2018) with very little research on this matter. Thus, it is important for both practitioners and academicians to understand what stimulates brand page engagement among consumers.

Previous studies have explored various antecedents of consumer engagement including content characteristics (Ashley & Tuten, 2015; de Vries et al., 2012; Schreiner et al., 2019; Tafesse, 2016) and individual consumer characteristics (Islam & Rahman, 2016). In addition to these antecedents, this study argues that multifaceted values of consumer experiences with a brand page would be important to foster their engagement with the brand page because consumer engagement occurs through the iterative interactions with the object (Brodie et al., 2013). Despite of the importance of this phenomena, little research has examined users’ perceived values from brand page experiences in relation to brand page engagement. Moreover, while the literature on user interaction with technologies stresses that desirable users’ interactive experiences with technologies come from hedonic user-object interaction qualities, which are crucial factors contributing to emotions and experiential outcomes (Hassenzahl, 2004; Hassenzahl & Tractinsky, 2006), little hedonic values were examined. To fill this gap in the literature, this study addresses multiple hedonic values that users experience during their interactions with brand pages. Specifically, this study addresses users’ perceived stimulation, enjoyment, and social identification, which have been rarely explored by previous studies on user-technology interaction especially in the context of fashion/beauty brand page experiences. By addressing these hedonic values in addition to practical values of user’s brand page experiences, this study aims to examine whether consumers’ perceived values in the brand page experience influence brand page engagement. Furthermore, recent studies contend that engagement is multi-dimensional (J. Bowden, 2009; J. L.-H. Bowden, 2009; Brodie et al., 2011; Brodie et al., 2013; Hollebeek et al., 2014; Hollebeek et al., 2016) and each dimension of engagement plays a different role in driving brand loyalty (Dessart et al., 2019; Harrigan et al., 2018; Hollebeek et al., 2014). Therefore, this study develops and empirically tests a comprehensive model of consumers’ brand page experiences that illuminates the dynamics among perceived values, brand page engagement dimensions and brand loyalty.

II. Theoretical Background

1. Brand Page Engagement

There is a general consensus regarding engagement
that it is a multi-dimensional concept comprising cognitive, affective, and behavioral dimensions (J. Bowden, 2009; J. L.-H. Bowden, 2009; Brodie et al., 2011; Brodie et al., 2013; Hollebeek et al., 2016; Hollebeek et al., 2014) rather than a uni-dimensional concept (Gummerus et al., 2012; Jahn & Kunz, 2012; Laroche et al., 2012; Simon et al., 2016; Tafesse, 2016). Hollebeek et al. (2014) defines brand engagement as a “consumer's positively valued brand-related cognitive, emotional, and behavioral activity during or related to focal consumer/brand interactions” (p. 154). Along the same line, this study views brand page engagement comprises as a multi-dimensional concept and defines brand page engagement as a consumer's positively valued cognitive, affective and behavioral states during his or her interactions with the brand page.

First, cognitive engagement concerns the extent to which one's cognitive absorption and elaboration in his or her interaction with a brand page in social media (Apenes Solem, 2016; Hollebeek et al., 2014). The literature characterizes cognitive engagement as attention and absorption (Dessart et al., 2016; Rothbard, 2001; Schaufeli et al., 2002) and sustained cognitive processing (Halaszovich & Nel, 2017; Harrigan et al., 2018; Hollebeek et al., 2014; Mollen & Wilson, 2010). When users cognitively engage in brand pages, they are likely to focus on their interactions, actively think, and elaborate on the information they have received during the interaction. Second, affective engagement refers to one's level of positive feelings toward an object such as a brand page during his or her interaction with the brand pages. Affectively engaged users feel intrinsically pleased, happy and excited about the engaging object during their interaction (Dessart et al., 2016; Hollebeek et al., 2014). Third, behavioral engagement refers to the extent to which a user spends energy, effort and time (L. Hollebeek, 2011; Hollebeek et al., 2014; Vivek et al., 2012) on a brand page in their interaction with the brand page. It involves actual usage of brand pages such as visiting and participating in activities of brand pages.

Scholars have identified several antecedents that stimulate user engagement, which includes involvement (J. Bowden, 2009; Gómez et al., 2019; Hollebeek et al., 2014; Islam & Rahman, 2016; So et al., 2016; Vivek et al., 2012), participation (Vivek et al., 2012), identification (Simon et al., 2016), benefits (Verhagen et al., 2015), motivations (O'Brien, 2010), brand experience (Ahn & Back, 2018), and experiential affordances of brand pages (Tafesse, 2016). In particular, this study explores the values of user experiences in brand pages as antecedents of brand page engagement since how user value their experiences affects strong emotional and experiential outcomes (Hassenzahl, 2004; Hassenzahl & Tractinsky, 2006), which typifies engagement (Brodie et al., 2011; Calder et al., 2009; Hollebeek et al., 2014; O'Brien, 2011). The literature also supports that positively experienced interactions with an interface leads to user engagement and behavior (Peters et al., 2018). In the context of user interaction with brand pages in social media, Gutiérrez-Cillán et al. (2017) identifies that a user's engagement with a brand page is based on the relational experiences with brand pages (e.g., utilitarian and entertainment experiential values formed by brand posts). Users are willing to engage with brand pages when they are having active and positive experiences (Gutiérrez-Cillán et al., 2017; Peters et al., 2018; Tafesse, 2016). Even momentary positive experiences with a brand page can promote engagement (Brooke et al., 2013; Mollen & Wilson, 2010). Thus, perceived values of users' experience from their interactions with brand posts in a brand page would likely to affect their engagement with the brand page.

2. Perceived Value in the Brand Page Experience

Value encompasses not only one's desired benefits of an activity but also processes of the activity, which reflects one's experience during the activity (Carlson et al., 2019). Recent research conceptualizing value as an experience (Carlson et al., 2019; Hellkula et al., 2012) asserts that value is interpreted by consumers' perceived experiences of interactions with brands, brands' social networks, and other customers. Along the same line, perceived values, in this study, refer to consumer perceptions of the experience during the interactions
Multiple values from user interactions make consumers satisfied and engaged with the brand pages (Carlson et al., 2019). The literature has shown that user evaluation of a brand's social media and/or the brand is a function of various practical and hedonic values that arise from the user's experience in the social media (Carlson et al., 2019; Dolan et al., 2016; Gómez et al., 2019; Jahn & Kunz, 2012). Based on the literature, this study employs four components of perceived values that users experience during their interaction with brand posts in brand pages: perceived practical value, perceived stimulation, perceived enjoyment, and perceived social identification.

1) Perceived Practical Value
Perceived practical value is the extent to which a consumer views that his or her interaction with a brand page is useful and relevant and provides relevant functionality that the consumer wants to achieve from the interaction. Overall, practical value is related to utilitarian and practical aspect of consumption (Babin et al., 1994; Chang & Tseng, 2013; Lin & Lu, 2011). Since practical value is a key motivation to interaction with an object, it is an essential aspect that facilitate user engagement with the object (Carlson et al., 2019; Dessart et al., 2015; Hassenzahl, 2004; Hassenzahl & Tractinsky, 2006; van der Sluis, 2013; Wiertz & de Ruyter, 2007). In the context of brands' online communities, prior studies have validated the relationship between perceived practical value and user engagement (Carlson et al., 2019; de Vries et al., 2012; Jahn & Kunz, 2012). In addition, the literature on information systems has shown that an overall quality of one's experience is affected by perceived practical quality of the interacting information, which in turn fosters the user's experiential states such as engagement (van der Sluis, 2013; van Schaik & Ling, 2011). Based on the literature, it is expected that the practical value that users perceive during their interaction with brand pages affects their brand page engagement.


2) Perceived Stimulation
Perceived stimulation refers to the extent to which a user feels that an object that s/he interacts with provides arousal and new impressions, opportunity, and insights (Hassenzahl, 2004). Stimulation is one of important hedonic qualities of interactive objects in the UX model since people strive for personal development and value stimulating experiences (Hassenzahl, 2004). Stimulating objects raise one's attention, fulfill his or her needs for novelty and challenge, or prompt personal thoughts since individuals strive for adventure and novelty in order to escape from the state of boredom (McGuire, 1974). Thus, Steenkamp and Baumgartner (1992) argue that stimulation is related to curiosity-motivated consumer behavior, variety seeking, and risk taking. In the context of brand pages, novel or exciting contents, or interaction style may stimulate users. As individuals desire a certain level of stimulation (Steenkamp & Baumgartner, 1992), perceived stimulation through interactive experiences can satisfy their needs, thereby generating a greater level of engagement.

Stimulating experience through interactive objects leads to pleasurable and satisfying reactions (Hassenzahl, 2004). Previous research suggests that stimulating experiences affect individuals' internal states and behaviors. For example, Nemeth and Ormiston (2007) has showed that people tend to be more creative and involved in a greater level of thought process generating more thoughts/ideas when they are in a stimulating environment compared to when they are in a comfortable environment. The environmental psychology approach has also shown that pleasantly stimulating experience generates positive emotions and favorable behavioral reactions to the stimuli (Donovan & Rossiter, 1982; Mehrabian & Russell, 1974). Since one of crucial motivations that lead consumers to go shopping is for adventure and stimulation (Arnold & Reynolds, 2003; Hirschman, 1984), stimulating environments through products, product properties, and/or communication
The Role of Brand Page Experiences on Consumer Engagement in Social Media

content affects consumers' information processing and experiences (Holbrook & Hirschman, 1982). In the context of retail shopping, the sense of stimulation evokes positive emotional experiences (Fiore et al., 2005; Fiore et al., 2004), increases the repeat purchase intentions (Chiu et al., 2014), and enhances the impulse buying intentions (Mattila & Wirtz, 2008). As such, one's thought process, emotional and behavioral tendencies are better triggered by new and challenging experience. Thus, it is hypothesized that the extent to a user feels stimulation during his or her interaction with a brand page leads to his or her engagement with the brand page.


3) Perceived Enjoyment

Perceived enjoyment refers to the extent to which a user feels that his/her interactions with the brand page as enjoyable. As the term, hedonic, is related to, or for pleasure, enjoyment is investigated by many studies incorporating the hedonic qualities in HCI literature (Diefenbach et al., 2014). In the literature on technology acceptance, Davis et al. (1992) incorporates perceived enjoyment as a hedonic variable in addition to original pragmatic determinants of Technology Acceptance Model (TAM) such as perceived usefulness and ease of use (Davis, 1986, 1989) and shows a significant impact on the adoption of computer use in the workplace. Since then, many studies have considered perceived enjoyment as one of the key factors that affect user reactions to and acceptance of interactive objects including technology (Igbaria et al., 1996; Wu & Lu, 2013), e-shopping (Ingham et al., 2015), and social media (Moghavvemi et al., 2017; Seol et al., 2016). The literature also shows that the role of perceived enjoyment becomes more powerful than practical variables when consumers use hedonic information systems (van der Heijden, 2004). Since many consumers use brand pages for hedonic purposes, we propose perceived enjoyment as an important factor to brand page engagement.

Consumers tend to like objects that provide fun and pleasant experiences (Babin et al., 1994; Chaudhri & Holbrook, 2001; Childers et al., 2001; Jones et al., 2006; Overby & Lee, 2006). Feelings of excitement and happiness derived from the experience of objects can stimulate users to like (Hsu, 2019; Lin & Bhattacherjee, 2010) and continuously use (Shiau & Luo, 2013) of the objects. Driven by intrinsic motivation, users who enjoy an object such as social media desire to continually engage with (Cvijikj & Michahelles, 2013; de Silva, 2019). Therefore, it is expected that one's level of perceived enjoyment during the interaction with a brand page influences his or her engagement with the brand page.


4) Perceived Social Identification

Social identification refers to a perceived connection built with a particular group as a result of one's satisfaction with the group (Algesheimer et al., 2005; Bhattacharya & Sen, 2003; Dholakia et al., 2009). A brand page provides a place where users meet and interact with other users of the brand (Algesheimer et al., 2005; Pongpaew et al., 2017). Thus, social identification is considered to be an important antecedent to users' brand page engagement in this study.

Identification involves an individual's categorization process through which the individual considers himself or herself as similar with members of a group and as dissimilar with nonmembers (Baldus et al., 2015; Bhattacharya & Sen, 2003; Ellemers et al., 1999). Through this process, consumers formulate affective involvement with the group (Ellemers et al., 1999), which leads them to make voluntary effort for and commitment to the group (Bhattacharya & Sen, 2003). Social identity theories show that, when consumers have feelings of identification with other members, they feel a
sense of belonging and community with the members (Algesheimer et al., 2005; Bhattacharya & Sen, 2003; Carlson et al., 2008), which leads to positive consequences for the community such as showing supportive behaviors (Carlson et al., 2008; Qu & Lee, 2011; Underwood et al., 2001; Zhao et al., 2016). That is, a connection that a user feels with other members in a community, which is described as we-ness (Wirtz et al., 2013) and shared consciousness (Muñiz Jr. & O'Guinn, 2001), becomes a core driver of the community activities and influences the user to get involve with the community (Muñiz Jr. & O'Guinn, 2001). Since users can gain social benefits from the community (McAlexander et al., 2002; Muñiz Jr. & Schau, 2005; Nambisan & Baron, 2007), the users with a high level of identification are more likely to become psychologically engaged with the community's activities (Algesheimer et al., 2005). In the context of brand pages on social media, the extent to which a user identifies with other members in a brand page is likely to influence his or her engagement with the brand page.

**H4.** Perceived social identification positively influences brand page engagement (a: cognitive elaboration, b: affective engagement, c: behavioral engagement).

### 3. Brand Page Engagement and Brand Loyalty

Brand loyalty is a main goal of companies' relationship marketing as a loyal consumer tends to patronize a preferred brand exhibiting favorable attitude and behaviors toward the brand over alternatives (Dick & Basu, 1994; Oliver, 1999). To develop a strong and loyal relationship with consumers, cultivating brand community is shown to be a good way (McAlexander et al., 2002; Muñiz Jr. & O'Guinn, 2001; Schau et al., 2009). As a similar kind of brand community, brand pages or online brand communities are also shown to attract and interact with consumers who are interested in a particular brand, the brand's posts, and/or the product category, and consequently lead to the development of brand-consumer relationships (Barger et al., 2016; Gómez et al., 2019; Wirtz et al., 2013). As brand pages have become a powerful channel for brand-consumer interaction, whether the brand pages can attract and engage consumers becomes an important issue for companies. Base on the literature suggesting that consumer-brand relationships can be strengthened through consumers' engagement with the brand's social media (Gómez et al., 2019; Jahn & Kunz, 2012; Laroche et al., 2012), it is expected that highly engaged users from their iterative interactions with a brand's social media page are more likely to exhibit loyalty toward the brand.

**H5.** Brand page engagement (a: cognitive elaboration, b: affective engagement, c: behavioral engagement) with the brand community in social media positively influences brand loyalty.

The proposed model is presented in <Fig. 1>.

### III. Methodology

#### 1. Data Collection

In order to collect data, this study employed an online survey administered by a professional panel provider, Embrain, in Korea. An online consumer panel was chosen to recruit participants because it warranted that they were web or mobile phone users having a fair chance to access social media. Adult consumers in Korea who followed more than one cosmetics/beauty brand page on social media are eligible for participating in the survey. We chose those considering that cosmetics and beauty industry is a continuously growing industry over the last ten years (Shahbandeh, 2020). In addition, as social media has been increasingly popular for cosmetics/consumers, all major cosmetics and beauty brands have accounts in social media such as Instagram and Facebook (Clement, 2020). A total of 358 usable responses were collected and used for data analysis. In the beginning of the survey, participants were asked to provide the name of the brand page they had recently visited. They were asked to re-
member the experiences while they were interacting with the brand pages and to visit the brand page for two to three minutes if necessary. Then, they finished questionnaire after reading a brief introduction regarding the study at their own pace. Table 1 presents the demographic characteristics of participants in the survey. The mean age of the respondents was 28 years old, and 86.6% were female. They possess a high level of education in that approximately a third of the participants (31.0%) are attending colleges/universities and more than two-third (63.7%) have bachelor's degree or above. Their monthly income is skewed toward the low level in that approximately 70.0% of the participants express that their monthly income is less than 3,000,000 won. This may be partially due to the fact that participants are in their 20s and early 30s.

2. Measures

All variables were measured using multi-item questions which were modified to fit the context of research – brand page on social media (Table 2). All variables except for practical value and demographic information were assessed using 7-point Likert scales (1 = strongly disagree; 7 = strongly agree). Perceived practical value was measured on a 7-point scale with semantic differential items. The first part of the survey was designed to capture participants' perceptions of their brand page experience in terms of practical value, stimulation, enjoyment, and social identification. Perceived practical value was measured using a four-item scale from Frank et al. (2014) and Voss et al. (2003). Three items were used to measure perceived stimulation (Calder et al., 2009). The questionnaire employed three items for perceived enjoyment (Kwak et al., 2014) and two items for perceived social identification (Dholakia et al., 2009). A total of 11 items were used to capture brand page engagement in terms of cognitive engagement (3 items) (Agarwal & Karahanna, 2000; Apenes Solem, 2016), affective engagement (3 items) (Hollebeek et al., 2014), and behavioral (3 items) (Hollebeek et al., 2014). Lastly, three items from Labrecque (2014) were used to assess brand loyalty. A back-translation procedure was administered to develop the questionnaire in Korean (Brislin, 1970). The questionnaire was translated from English into Korean and then translated back into English by two bilingual researchers. Discrepancies were discussed and resolved between them. A cross-check was performed independently to ensure the accuracy of the translation.

Fig. 1. Research model.
IV. Results

1. Data Analyses

Following two stages of data analyses (Anderson & Gerbing, 1988), we conducted confirmatory factor analysis (CFA) and structural equation modeling (Roseman & Smith, 2001) with Amos 25.0 with maximum likelihood estimation of the covariance matrix. CFA was first performed to validate our measurement mo-
After checking the quality of our measurement model, we then conducted SEM for hypothesis testing. First, CFA revealed that our measurement model has an acceptable fit ($\chi^2 = 406.23$, $df = 181$, $\chi^2/df = 2.24$, $p <.001$, CFI = .95, TLI = .94, IFI = .95, RMSEA = .06, SRMR = .04). As can be seen in Table 2, standardized factor loadings are over .70 and significant (C.R. > 15.22). As can be seen in Table 2–Table 3, reli-

<table>
<thead>
<tr>
<th>Variable</th>
<th>Std. factor loading</th>
<th>Cronbach’s $\alpha$</th>
<th>Construct reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived practical value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ineffective – effective</td>
<td>.73</td>
<td>.84</td>
<td>.84</td>
</tr>
<tr>
<td>unhelpful – helpful</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>impractical – practical</td>
<td>.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>useless – useful*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived stimulation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Interacting with brand page inspired me in my own life.</td>
<td>.84</td>
<td>.86</td>
<td>.86</td>
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<tr>
<td>Interacting with brand page made me think of things in new ways.</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interacting with brand page stimulated my thinking about lots of different topics.</td>
<td>.78</td>
<td></td>
<td></td>
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<tr>
<td>Perceived enjoyment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interacting with brand page was fun.</td>
<td>.80</td>
<td>.85</td>
<td>.85</td>
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<tr>
<td>Brand page provided me with a lot of enjoyment.</td>
<td>.85</td>
<td></td>
<td></td>
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<tr>
<td>Interacting with brand page was enjoyable.</td>
<td>.78</td>
<td></td>
<td></td>
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<tr>
<td>Perceived social identification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I perceive myself as part of this community of the brand page.</td>
<td>.84</td>
<td>.82</td>
<td>.81</td>
</tr>
<tr>
<td>When I talk about this brand page, I talk about “us” rather than “them”</td>
<td>.81</td>
<td></td>
<td></td>
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<tr>
<td>Cognitive engagement</td>
<td></td>
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<tr>
<td>When interacting with this brand page, I did not think about other things.</td>
<td>.80</td>
<td>.88</td>
<td>.88</td>
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<tr>
<td>When interacting with this brand page, I was focused on what I was doing.</td>
<td>.87</td>
<td></td>
<td></td>
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<tr>
<td>When interacting with this brand page, I was totally absorbed in what I was doing.</td>
<td>.86</td>
<td></td>
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<tr>
<td>Affective engagement</td>
<td></td>
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<tr>
<td>While interacting with this brand page, I felt very positive.</td>
<td>.85</td>
<td>.89</td>
<td>.90</td>
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<tr>
<td>I enjoyed interacting with this brand page.</td>
<td>.83</td>
<td></td>
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<tr>
<td>I felt good While interacting with this brand page.</td>
<td>.93</td>
<td></td>
<td></td>
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<tr>
<td>Behavioral engagement</td>
<td></td>
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<tr>
<td>I spend a lot of time using this brand SNS, compared to others.*</td>
<td>-</td>
<td>.84</td>
<td>.83</td>
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<tr>
<td>Whenever I use social media, I usually use this brand page.</td>
<td>.81</td>
<td></td>
<td></td>
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<tr>
<td>This brand page is one of what I usually use.</td>
<td>.89</td>
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<tr>
<td>Brand loyalty</td>
<td></td>
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<tr>
<td>I am willing to say positive things about this brand to others.</td>
<td>.86</td>
<td>.87</td>
<td>.87</td>
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<tr>
<td>I am willing to encourage close others to do business with this brand.</td>
<td>.86</td>
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<tr>
<td>I plan to do business with this brand in the next few years.</td>
<td>.78</td>
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</table>

*: Items removed from final analysis.
abilities and the AVEs (> .50) of all constructs are greater than the threshold confirming internal consistency and convergent validity. Moreover, the AVE of each construct is shown to be greater than the shared variances, verifying discriminant validity (Table 3) (Fornell & Larcker, 1981).

Second, SEM results show that the structural model fits the data well ($\chi^2 = 487.24$, $df = 187$, $\chi^2/df = 2.61$, $p < .001$, CFI = .94, TLI = .92, IFI = .94, RMSEA = .06, SRMR = .06). The model accounted for 44.1%, 60.2%, 60.1%, and 49.3% of the variances in cognitive engagement, affective engagement, behavioral engagement, and brand loyalty respectively. Hypotheses 1-4 hypothesized the effects of perceptions of brand page experience – practical value, stimulation, enjoyment, and social identification – on brand page engagement dimensions. First, the results showed that perceived practical value had a significant impact on cognitive ($\gamma = .12$, $t = 1.96$, $p < .05$), affective ($\gamma = .19$, $t = 3.77$, $p < .001$), and behavioral engagement ($\gamma = .35$, $t = 5.79$, $p < .001$), supporting H1. Second, the effect of perceived stimulation on affective engagement ($\gamma = .17$, $t = 2.68$, $p < .01$) was shown to be positive and significant. But, its impacts on cognitive and behavioral engagement were not significant. Thus, H2b was supported while H2a and H2c were rejected. Third, regarding H3, results showed that perceived enjoyment had a positive influence on cognitive ($\gamma = .39$, $t = 4.89$, $p < .001$), affective ($\gamma = .36$, $t = 5.56$, $p < .001$), and behavioral engagement ($\gamma = .35$, $t = 4.77$, $p < .001$), yielding support for H3. Fourth, as to H4 predicting a positive effect of perceived social identification on brand page engagement dimensions, results revealed the significant relationships of perceived social identification with cognitive ($\gamma = .28$, $t = 4.20$, $p < .001$), affective ($\gamma = .25$, $t = 4.69$, $p < .001$) and behavioral ($\gamma = .29$, $t = 4.69$, $p < .001$) yielding support for H4. H5 postulated the positive impact of brand page engagement on brand loyalty. The results revealed that brand loyalty was significantly influenced by affective ($\gamma = .31$, $t = 4.77$, $p < .001$) and behavioral engagement ($\gamma = .46$, $t = 6.42$, $p < .001$), but not by cognitive engagement. Thus, H5b and H5c were supported while H5a was not. The summary of hypothesis testing is shown in Table 4.

### Table 3. Convergent and discriminant validity

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<tbody>
<tr>
<td>1. Perceived practical value</td>
<td>.64</td>
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<td></td>
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<tr>
<td>2. Perceived stimulation</td>
<td>.25</td>
<td>.67</td>
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<td></td>
<td></td>
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<td>3. Perceived enjoyment</td>
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<td>.42</td>
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<td>4. Perceived social identification</td>
<td>.10</td>
<td>.25</td>
<td>.27</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. Cognitive engagement</td>
<td>.17</td>
<td>.22</td>
<td>.36</td>
<td>.28</td>
<td>.70</td>
<td></td>
<td></td>
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<tr>
<td>6. Affective engagement</td>
<td>.26</td>
<td>.38</td>
<td>.45</td>
<td>.32</td>
<td>.29</td>
<td>.76</td>
<td></td>
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<tr>
<td>7. Behavioral engagement</td>
<td>.32</td>
<td>.28</td>
<td>.42</td>
<td>.34</td>
<td>.22</td>
<td>.48</td>
<td>.72</td>
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<tr>
<td>8. Brand loyalty</td>
<td>.40</td>
<td>.34</td>
<td>.31</td>
<td>.07</td>
<td>.18</td>
<td>.38</td>
<td>.45</td>
<td>.70</td>
</tr>
</tbody>
</table>

Diagonal entries are AVE for each construct. Off-diagonal entries are the squared correlation coefficients between constructs.

V. Discussion and Conclusions

Scholars have called for empirical studies examining the relative importance of engagement dimensions in various contexts (Dessart et al., 2019). In response, this study explores different roles of brand page engagement dimensions (cognitive, affective, and behavioral engagement) in relation to its antecedents and consequences in the context of consumers' experiences of cosmetics brand page on social media. Specifically, this study empirically tests how consumers' perceived values of brand page experience influence each dimension of consumer engagement and how each engagement dimension has a different impact on brand loyalty. The results of this study make substantive cont-
The Role of Brand Page Experiences on Consumer Engagement in Social Media

Contributions to the consumers’ perceived brand page experience and engagement literature and brand page management on social media for developing brand loyalty.

Along with the growing academic and practical interest in the topic of brand page and engagement, this study contributes to the literature in two ways. First, the study highlights the importance of enhancing brand page engagement by showing its role in driving brand loyalty. In particular, in line with findings of previous literature on consumer engagement with a brand (Dessart et al., 2019; Hollebeek et al., 2014), this study revealed that each dimension of consumer engagement with a brand page has a relatively different power, and that cognitive engagement does not have a significant effect on brand loyalty. Consistent with previous studies focusing on three dimensions of brand engagement (Dessart et al., 2019; Hollebeek et al., 2014), this study provides evidence that the relative importance of engagement dimensions is different in affecting brand loyalty in the context of brand page on social media. This suggests that engagement should be approached from the multi-dimensional concept, and further research is needed to explore the dynamics of engagement dimensions to enhance our understanding of brand page engagement. In addition, the finding on the insignificant effect of cognitive engagement on brand loyalty may explain that brand loyalty is influenced by relational and affective rather than cognitive factors. Another explanation is that cognitively absorbed state in a brand page does not directly affect brand loyalty rather indirectly through brand page engagement. Or, given some characteristics of this study which investigated cosmetic brand pages and young consumers (over 70% were 20s), it may imply that the young consumers are more attracted to affective and behavioral aspects of engagement in brand pages on social media for cosmetics than for other product categories. Further research is required to enhance our understanding of dynamics of engagement dimensions.

Second, the study provides a new antecedent of brand page engagement to expand the engagement discourse in the context of brand pages on social media. Exhibiting 44.1%, 60.2%, and 60.1% of variances of cognitive, affective, and behavioral engagement, the study validates that the perceived values in the brand page experience is a strong and significant antecedent to each

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standard coefficient</th>
<th>t-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a: Practical value → Cognitive engagement</td>
<td>.12</td>
<td>1.96*</td>
<td>supported</td>
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<tr>
<td>H1b: Practical value → Affective engagement</td>
<td>.19</td>
<td>3.77***</td>
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<td>H1c: Practical value → Behavioral engagement</td>
<td>.35</td>
<td>5.79***</td>
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<td>H2a: Stimulation → Cognitive engagement</td>
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<td>.28</td>
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<td>H2b: Stimulation → Affective engagement</td>
<td>.17</td>
<td>2.68**</td>
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<tr>
<td>H4a: Social identification → Cognitive engagement</td>
<td>.28</td>
<td>4.20***</td>
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<tr>
<td>H4b: Social identification → Affective engagement</td>
<td>.25</td>
<td>4.69***</td>
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<td>H4c: Social identification → Behavioral engagement</td>
<td>.29</td>
<td>4.69***</td>
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<tr>
<td>H5a: Cognitive engagement → Brand loyalty</td>
<td>.02</td>
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<td>H5b: Affective engagement → Brand loyalty</td>
<td>.31</td>
<td>4.77***</td>
<td>supported</td>
</tr>
<tr>
<td>H5c: Behavioral engagement → Brand loyalty</td>
<td>.46</td>
<td>6.42***</td>
<td>supported</td>
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</tbody>
</table>

*p < .05, **p < .01, ***p < .001
dimension of brand page engagement. Building upon the literature (Hassenzahl, 2004; Hassenzahl & Tractinsky, 2006), this study demonstrates that consumers' perceived values of brand page experience is multi-faceted, and the perceived enjoyment and social identification have more powerful impact on consumers' responses toward their brand page experiences. Specifically, the results revealed that perceived practical value, enjoyment, and social identification significantly influence cognitive, affective, and behavioral engagement with brand page, and perceived stimulation has a significant impact on affective engagement. In general, perceived enjoyment and social identification, compared to the perceived practical value, have a greater effect on cognitive and affective engagement. This means that consumers are more likely to absorbed and affectively inclined to a cosmetic brand's page on social media when they are socially comfortable with and enjoying their interaction with the brand page. Considering the critical role that interpersonal communication with peers plays in cosmetics shopping (Chia et al., 2012), how to make a brand's page more socially engaging is important for beauty and cosmetic brands. Interestingly, however, the perceived practical value exhibits a great impact on behavioral engagement. This may mean that consumers are more behaviorally engaged when they feel that the brand page is helpful providing relevant and useful information to them (e.g., offering makeup tutorials and customer reviews). By incorporating three dimensions of brand page engagement and the pragmatic and hedonic aspects of consumer perceptions of brand page experiences, this study demonstrates dynamic relationships of these factors.

Practically, this study helps marketers and practitioners gain a better understanding of the role of brand page engagement on social media. As the psychological state of brand page engagement is a key factor to drive brand loyalty, brand marketers are recommended to find ways to quantify brand page engagement dimensions and use them as key performance indicators for their brand pages. In addition, this study suggests consumers' perceived brand page experiences as potential factors that affect brand page engagement. To facilitate brand page engagement, brand marketers should consider such factors as practical value, stimulation, enjoyment, and social identification when designing their brand pages to create positive experiences. For example, it is recommended to post up-to-date, useful, and enjoyable information on their pages (e.g., tips and tricks on how to apply cosmetics, product tutorials). Stimulating and enjoyable contents on can be made with novel information, interactive features, and innovative technology (e.g., virtual makeup try-on tools). Also, providing places on brand pages where consumers can share their thoughts and interact with other consumers would be beneficial to stimulate consumers' brand page engagement.

While this study provides theoretical and practical implications, some limitations need to be considered. First, this study employed a convenience sample of Korean consumers who follow brand pages, which limits the generalization of the results of the current study. Thus, future research may focus on other subjects such as non-followers to better generalize the results. Second, this study used self-reported data from respondents in assessing their perceptions of brand page experiences and brand page engagement. Since retrospective responses toward the brand page experiences and engagement may not fully represent respondents' experiences at the moment and unconscious responses toward them, further research incorporating different methodologies is needed. Third, this study focused on one product category (cosmetics). Contents and consumer characteristics who follow brand pages may differ by product categories. Thus, future research replicating this study with different product categories and various situational factors and consumer characteristics will enhance our understanding of the consumer experiences and engagement with brand pages.

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