

# The Antecedents of Brand Loyalty Building in a Facebook Fan Page

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## Abstract

The contents and the interactions that occur within Facebook fan pages are critical to the cultivation of positive customer attitudes toward brands. The objective of this study is to investigate the positive and negative impacts of fan page attitude and word-of-mouth on brand loyalty using the perspective of uses and gratifications theory. Another focus of this study is to examine whether the relationships between fan page attitude and word-of-mouth, and loyalty are different in experience-oriented and search-oriented products. The results of this study showed that the positive perceptual experiences namely, informativeness, utilitarianism, and leader enthusiasm, have a positive influence on human-message interaction in fan pages; whereas, the negative perceptual experience including boredom, has a negative influence. In addition, the positive perceptual experiences namely, entertainment and utilitarianism, have a positive influence on human-human interaction; while the negative perceptual experience including boredom, has negative influence. In addition, this study found that both human-message interaction and human-human interaction have positive effects on fan page attitude, which leads to the formation of brand loyalty. Also, positive word-of-mouth exerts a positive influence on brand loyalty. Lastly, this study observed that the effects of fan page attitude and word-of-mouth on brand loyalty vary depending on the orientation of the product. It is hoped that the results of this study can serve as the foundation for future research and provide corporations and brands with a reference for the management strategies of fan pages.

*Keywords: Facebook, fan pages, uses and gratifications theory, word of mouth, brand loyalty*

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## 1. Introduction

The recent popularization of the Internet has deeply impacted people's consumption behavior since it allows individuals to receive and transmit new information through many different channels. Majority of people who are interested in a certain product will first actively search the Internet for related word-of-mouth, purchase experience, and other relevant information before actually buying the product. Additionally, they may consult with friends and relatives and ask for their comments before making a final decision on whether to buy the product

of interest or not. Brand reputation is an important factor that impacts brand loyalty (Pan, Sheng, & Xie, 2012); thus, many companies rely on word-of-mouth marketing. It has been observed that word-of-mouth, whether positive or negative, impacts customers' subsequent attitudes and behaviors (Armstrong & Kotler, 2007). Companies in recent years have created word-of-mouth with increasing focus on developing direct communication channels with customers via online community platforms, such as Facebook Fan Pages. According to the 2012 survey results of Lab 42, a market research firm, 50% of the respondents believed that fan pages are more useful than a brand's official

website, and 82% asserted that fan pages are an appropriate alternative place to interact with the brand.

Consumers must only subscribe to the fan pages that pique their interest to regularly receive information from related companies; they can use the fan page to exchange information with fellow fans and the brand's social manager, commonly known as the social network editor. This effectively shortens the distance of the brand to its potential customers, and even allows consumers to express encouragement, recommendations, and critiques the way regular friends do (Lipsman, Mudd, Rich, & Bruich, 2012). As the fans continue to participate and include their circle of friends as potential customers, a diffusion effect is created which attracts more fan support to the brand. In contrast, if a fan page is not well-managed and negative experiences are generated, consumers will become bored or even irritated; such negative experiences will also rapidly spread.

The present study's research target is the fan page. In addition to studying the impact of word-of-mouth on brand loyalty, this study aims to investigate the impact of perception created by fan pages on its fans' attitudes and brand loyalty using the *uses and gratifications theory*. This study proposes that brand loyalty can be simultaneously developed from word-of-mouth and the perceptions created on fan pages. Additionally, Reimer, Rutz, and Pauwels (2014) believed that the product type is crucial when adjusting online operating strategies. The current study also aims to determine whether the factors that impact fans' brand loyalty vary among different brand types.

## 2. Theoretical Framework

### 2.1 Uses and Gratifications Theory

Bauer (1964) posited the "obstinate audience" concept, which argued that the media communication process should be bidirectional. This means that during media exchange and interaction, the audience must actively select the media and information content that will satisfy their individual

needs, rather than passively receiving such information. Katz, Blumler, and Gurevitch (1974) proposed the uses and gratifications theory which suggests that a purpose exists in the audience's active media usage. This purpose primarily involves satisfying his or her psychological or social needs through media usage. Williams, Phillips, and Phillips (1985) argued that new advances in communications technology have provided more opportunities and satisfaction channels for the audience; the study also applied the uses and gratifications theory in explaining the effectiveness of new communications technology.

The Internet's rapid development and popularization has generated many Internet service applications, such as online communities, blogs, micro-blogs, and others, which address the audience's needs via various network community services. Applying the uses and gratifications theory, this means that individuals actively select the social media that meets their individual needs, and the perceptions created in these communities can be used to influence an individual's attitude and preference for social media (Krause, North, & Heritage, 2014; Whiting & Williams, 2013). This study, therefore, argues that the perceptions (both positive and negative) mentioned above will have effects on the interactions that occur within the Facebook fan page, which will then lead to attitude formation.

### 2.2 Interaction between Users and Media

Ko, Cho, and Roberts (2005) classified online interaction modes into two: (1) interaction between people and information or "human-message interaction", wherein users can control and edit information content, can search via media interaction (Ariely, 2000), and can click or download software and play games at will when prompted by online ads (Cho & Leckenby, 1999); and (2) interaction among people or "human-human interaction", which represents the bidirectional relationship between the information transmitter and receiver. Massey and Levy (1999) argued that human interaction in-

volves users communicating with other users to exchange views and discuss topics through various Internet channels such as chat rooms, message boards, or forums.

### 2.3 Attitude toward Fan Pages

The attitude toward a brand's page includes the fans' responses towards its operation. Kotler (1991) referred to this type of attitude as the individual's long-lasting emotional feeling, perceived evaluation, and action intention, such as likes and dislikes, towards certain targets or concepts. Ko et al. (2005) believed that through human-message and human-human interactions, website usage rate could be enhanced while creating a positive attitude toward the website; thus, when fans express higher intentions in human-message and human-human interactions, this may generate better fan's attitudes toward the fan page (Kang, Tang, & Fiore, 2015). This is reflected through their intention to engage in various information transmissions and exchange types on the fan page, such as interacting with various information content types, clicking links, or using online messaging to instantly share the contents with other fans. The following hypotheses are then proposed:

*H1a: Human-message interaction intention is positively related to attitude toward the fan page.*

*H1b: Human-human interaction intention is positively related to attitude toward the fan page.*

### 2.4 Perceptual Experience

Ducoffe (1996) employed the uses and gratifications theory to evaluate the value of advertising by exploring customers' three perceptual experiences namely, informativeness, entertainment, and irritation. The customers were asked to evaluate online advertisements based on the three perceptual experiences. The study also explored the impact of these perceptions on customers' attitudes toward online advertisements. A study by Haney (1967) defined perception as the process of obtaining meaning from experience. The results noted that informativeness and entertainment had a positive impact on

advertising value, whereas irritation had a negative impact. Luo (2002) also explored the impact of informativeness, entertainment, and irritation on online customer behaviors. The study found that in addition to providing useful information and entertainment value, website information content should be free of confusion, deception, and irritation to customers; otherwise, customers would stop browsing the website.

Brand pages, which aim to provide fans with the best user experience, should have a brand manager who must not only understand fans' needs and suggestions, but must also foster an interactive atmosphere to effectively motivate fan interaction and to promote fans' brand affinity. Koh and Kim (2003) mentioned that passionate leaders in virtual communities could promote various activities and business interactions within the communities, which can further enhance member engagement. The succeeding paragraphs specifically describe the positive and negative perceptions of individuals on fan pages, and discuss their relationship with fan page interactions.

#### 2.4.1 Positive Perceptual Experience

*Informativeness* is based on the uses and gratifications theory, and is described as the enriched posts and useful information provided to the customers in order to meet their need for information (Luo, 2002). Hagel and Armstrong (1997) mentioned that the key for virtual communities' attraction is to provide a wealth of information to attract viewers to enter the community. Only good content can attract customer participation, which may further impact the formation of online loyalty (Rodgers, Negash, & Suk, 2005). Shopping sites offer a wealth of product information enabling customers to obtain various data to satisfy their information needs which makes customers more willing to shop online (Kim, Kim, & Park, 2010). If fans feel that they can use the fan page to satisfy their needs for current information, they will be more likely to click on posts, images, and videos, and will consider the fan page an important shopping infor-

mation source reflecting higher human-message interaction intention. Additionally, these fans are more likely to utilize the fan page with fellow fans, to click “like,” or to share reviews and experiences reflecting higher human-human interaction intentions. With these in mind, the following hypotheses are proposed:

*H2a: Perceived informativeness is positively related to human-message interaction intention.*

*H2b: Perceived informativeness is positively related to human-human interaction intention.*

Luo (2002) noted that in the uses and gratifications theory, the extent of *entertainment* can effectively improve the attitude towards a website. Many studies proposed that pleasant experiences have a significant and positive impact on both attitude and intention in customer behavior (Chen, 2011; Choi, Kim, & McMillan, 2009; Peters, Amato, Hollenbeck, 2007). Alternatively, Moon and Kim (2001) proposed that perceived playfulness directly impacts website participation and usage; thus, fan page content can present information related to products and activities, and can also share other interesting things that are not product-related. For instance, video reposts and images can be used to create a pleasant feeling for fans when browsing, hence promoting the sharing and discussion of interesting topics. The following hypotheses are then proposed:

*H3a: Perceived entertainment is positively related to human-message interaction intention.*

*H3b: Perceived entertainment is positively related to human-human interaction intention.*

Utility is regarded as the overall benefit evaluation of a certain product, and the customer's attitude and perception of its economic value (Zeithaml, 1988). Customers shopping online will browse through websites to search for product-related information as a pre-purchase reference to help

them alleviate the risk inherent in the shopping task (Choi, Lee, & Hwang, 2005; Park, Kim, Funches, & Foxx, 2012).

Pöyry, Parvinen, and Malmivaara (2013) suggested that the higher the customer's sense of utility, the higher their intention in browsing Facebook. Additionally, Cotte, Chowdhury, Ratneshwar, and Ricci (2006) regarding website usage, found that customers' degree of utility has a positive impact on their site search interaction behaviors; thus, many fan pages occasionally offer various exclusive promotions that allow fans to obtain better bargains for products, or rewards through participation in fan page information activities. Furthermore, fans can also exchange information and discuss topics with their fellow fans to acquire more product reviews and recommendations, which assist them in choosing a product that best fits their interest. In other words, when a fan page offers customers with many utilitarian perception experiences, it results in increased fans' participation in various types of interactions. The following hypotheses are then proposed:

*H4a: Perceived utility is positively related to human-message interaction intention.*

*H4b: Perceived utility is positively related to human-human interaction intention.*

Every brand community's operation relies on the manager whose business strategies are the key to the brand community's success. Whether in a physical organization or virtual community, the leader's enthusiasm will motivate community members to participate in the various organized activities, or will drive the community's overall positive atmosphere while taking care of its members (Kim, 2000). Additionally, Koh and Kim (2003) suggested that members are integrated better within the virtual community when the leader is passionate and is actively involved in the operation. Koh, Kim, Butler, and Bock (2007) believed that the leader's active involvement and participation are conducive to virtual community members' knowledge-sharing and browsing

interactions. When a fan page is under a leader's active management, fans are more willing to click on the fan page's news and interact with others; thus, enthusiastic leadership can easily stimulate fans' interactive fan page behavior. With this, the following hypotheses are proposed:

*H5a: Perceived leaders' enthusiasm is positively related to human-message interaction intention.*

*H5b: Perceived leaders' enthusiasm is positively related to human-human interaction intention.*

#### 2.4.2 Negative Perceptual Experience

Geiwitz (1966) argued that *boredom* refers to the feeling of unpleasantness, constraint, repetitiveness, and low social arousal. Alternatively, Iso-Ahola and Weissinger (1990) proposed the leisure boredom concept which revealed that when an individual's needs are not satisfied with leisure activities, his or her perceptual experience cannot be activated; this results in boredom leading to the individual's lack of interest with the activities because they are deemed meaningless.

In the present study, the process of browsing through the fan page is considered as a leisure activity. When participating in a fan page, the lack of stimulus or attractive information to drive fan participation results in fans feeling bored which will lead to fans gradually quitting browsing. For example, reposting long or boring information that lacks content will lead to boring, negative emotions, resulting in lowered interaction behavior in searching for information content or activity news, or lack of interest in interactive exchanges such as topic discussion and experience sharing. The following hypotheses are therefore proposed:

*H6a: Perceived boredom is negatively related to human-message interaction intention.*

*H6b: Perceived boredom is negatively related to human-human interaction intention.*

Luo (2002) noted that *irritation* results from the presentation of confusing, deceptive, or overly frequent content while browsing. Once customers receive these negative experiences, they will discontinue any interaction with the website. Huang, Chou, and Lin (2010) mentioned that when using the online community platform as a marketing tool, companies should be mindful that excessive advertising will lower content authenticity and perceived credibility, create negative psychological effects in customers, and decrease online platform interaction. The following hypotheses are then proposed:

*H7a: Perceived irritation is negatively related to human-message interaction intention.*

*H7b: Perceived irritation is negatively related to human-human interaction intention.*

#### 2.5 Brand Loyalty

The *brand* is a name or symbol with unique features, used to differentiate a certain product or company from its competitors. It is conducive to market segmentation, through which brand value and innovativeness can be enhanced in market competition, hence forming a group of loyal customers (Allender & Richards, 2012). Zeithaml, Berry, and Parasuraman (1996) posited that brand loyalty measures customers' repeated intentions to purchase a brand, as well as their willingness to recommend the brand to others. Oliver (1999) also supported the assertion that a brand with loyal customers is less vulnerable to impact from external factors that result in brand-switching behavior; this increases the probability of future repeat purchase behaviors.

Müller, Florès, Agrebi, and Chandon (2008) posited that when customers feel satisfaction with a brand site, this will positively impact their brand loyalty to a certain extent. Further, attitude is an important factor in studying consumer behavior. When customers are provided a comfortable and pleasant online environment, this will not only increase their attitude toward the fan page (Kudeshia, Sikdar, & Mittal, 2016), but

could also enhance their brand loyalty. The following hypothesis is then proposed:

*H8: Attitude toward the fan page is positively related to brand loyalty.*

## 2.6 Word-of-Mouth

Hennig-Thurau, Gwinner, Walsh, and Gremler (2004) described *word-of-mouth* as a collection of any positive and negative statements made by potential, current, and former customers regarding a product or company, which is made available to people and institutions worldwide through the Internet. Leisen and Prosser (2004) found that if the service process results in customer satisfaction, even customers who have paid a substantial amount for a product will still convey positive word-of-mouth. Brown, Broderick, and Lee (2007) mentioned that customers regard electronic word-of-mouth (eWOM) as a reliable source of word-of-mouth information. Brown and his colleagues also argued that eWOM significantly impacts customers' information search, product evaluation, and final purchase decisions. When customers receive more positive than negative word-of-mouth about the product of interest, they become more loyal to the brand, making customers less willing to switch to other homogeneous brands (Gruen, Osmonbekov, & Czaplewski, 2006). Past studies have also indicated that customers' repeat purchase intentions are expressions of loyalty that are also subject to significant influence from word-of-mouth (Molinari, Abratt, & Dion, 2008). The following hypotheses are then proposed:

*H9a: Perceived positive word-of-mouth is positively related to brand loyalty.*

*H9b: Perceived negative word-of-mouth is negatively related to brand loyalty.*

## 2.7 Product Category

Nelson (1974) mentioned that information asymmetry easily occurs, as the ease of obtaining product information varies among customers; thus, different types of information will be needed for comparison when handling products with different attributes. The present study therefore, classified products based on the ease of collecting

product information and the products' attributes into two major types namely, search goods and experience goods. *Search goods* refer to products with primary information that can be easily obtained through information collection; an evaluation of the product can be made prior to purchase. Examples of search goods include gardening products and furniture. Alternatively, *experience goods* refer to products that can only be evaluated from personal use experience after purchase, such as food and books. Moreover, search goods' attributes can be more objectively compared, whereas product evaluations for experience goods rely on personal and subjective sensory experiences (Mudambi & Schuff, 2010).

### 2.8.1 Search Goods-Oriented Fan Pages

Batra and Sinha (2000) argued that if a certain brand of a search good can fully satisfy consumers' need for information regarding its product functions and quality, the brand can easily acquire customers' trust which increases purchase intention. The risks involved are relatively lower in search goods than in experience goods; when sufficient product-related information is obtained, brand selection can be more objective, and the purchase intention toward a certain brand can be enhanced (Kwon, Lee, & Kwon, 2008). Brand loyalty for a certain search good is likely impacted by fans' attitudes toward the fan page; therefore, the following hypothesis is proposed:

*H10: The brand loyalty of search goods-oriented fan page is developed mainly through consumers' attitude toward the fan page.*

### 2.7.2 Experience Goods-Oriented Fan Pages

The present study's positive and negative word-of-mouth is denoted by the comprehensive word-of-mouth experienced by consumers. Regardless of the word-of-mouth's origins, such as online platforms, communication media, or exchanges with others in daily life, word-of-mouth is an important information collection channel for

consumers prior to buying a product. Regarding products that require post-purchase judgment for evaluation, although insufficient product information can be gathered for a pre-purchase product evaluation, related word-of-mouth from others' experiences can still be collected which can further impact fans' brand loyalty. Gelb and Johnson (1995) mentioned that when consumers are unable to perform pre-evaluations of a certain product's quality, such as with service-oriented products (e.g. medical, legal, and auto maintenance services) they will often search for various word-of-mouth opinions as references; which are found to have more significant effects on purchase intention over other sources (Buttle, 1998). The fan page of experience goods-oriented brands is primarily comprised of information provided by the brand's social manager, and fan responses are regarded only as secondary information. Potential customers are unlikely to form brand loyalty merely from the fan page's information, but rather rely on other channels for positive and negative word-of-mouth. The following hypothesis is then proposed:

*H11: The brand loyalty of experience goods-oriented fan page is developed mainly through word-of-mouth.*

The research model is shown in Figure 1.

### 3. Research Method

#### 3.1 Data Collection

The target samples of this study are users who have participated in Facebook fan pages. Taiwan's popular electronic bulletin board system (PTT BBS) using its Facebook page, and questionnaire and sweepstakes interfaces was employed to ask participants who have previously used Facebook fan pages to participate and complete an online survey questionnaire for this study.

Respondents' participation behavior on Facebook fan pages was accurately measured by identifying Taiwan's top 50 most popular commercial fan pages (Socialbakers, 2013); then, 20 fan pages were randomly selected. As mentioned, this study classified product type into search goods and experience goods; the 20 randomly selected brand pages were then accordingly categorized into two groups based on the definition of search and experience goods, then random sequencing was performed. Respondents were then asked to select 1 out of the 20 randomly selected fan pages to work on. This minimized the probability of respondents choosing the same fan page due to their habitual selection behaviors which would result in an inaccurate variance measurement. Finally, respondents with no prior experience in participating in any of the 20 randomly selected fan pages were omitted and withdrawn from the study.

The questionnaire's validity was ensured by only allowing a one-time log-in for each e-mail address. Additionally, respondents were actively reminded not to miss any questions to minimize the possibility of generating invalid questionnaires. Moreover, to increase respondents' willingness to complete the questionnaire, a lottery incentive was employed, such that each respondent would have the opportunity to win a FamilyMart convenience store gift card worth NT\$100 or NT\$200.

Ultimately, 494 questionnaires were collected but only 276 (55.87%) were considered valid. A total of 203 questionnaires were completed by respondents who have never participated in any commercial fan pages or in any of the present study's selected fan pages, thus were eliminated; another 15 questionnaires were rendered invalid due to inconsistent responses and were also removed. From the 276 valid questionnaires, 44.6% were male and 55.4% were female. About 70% of all respondents were 20 to 30 years old, and over 97% followed more than 2 commercial fan pages.

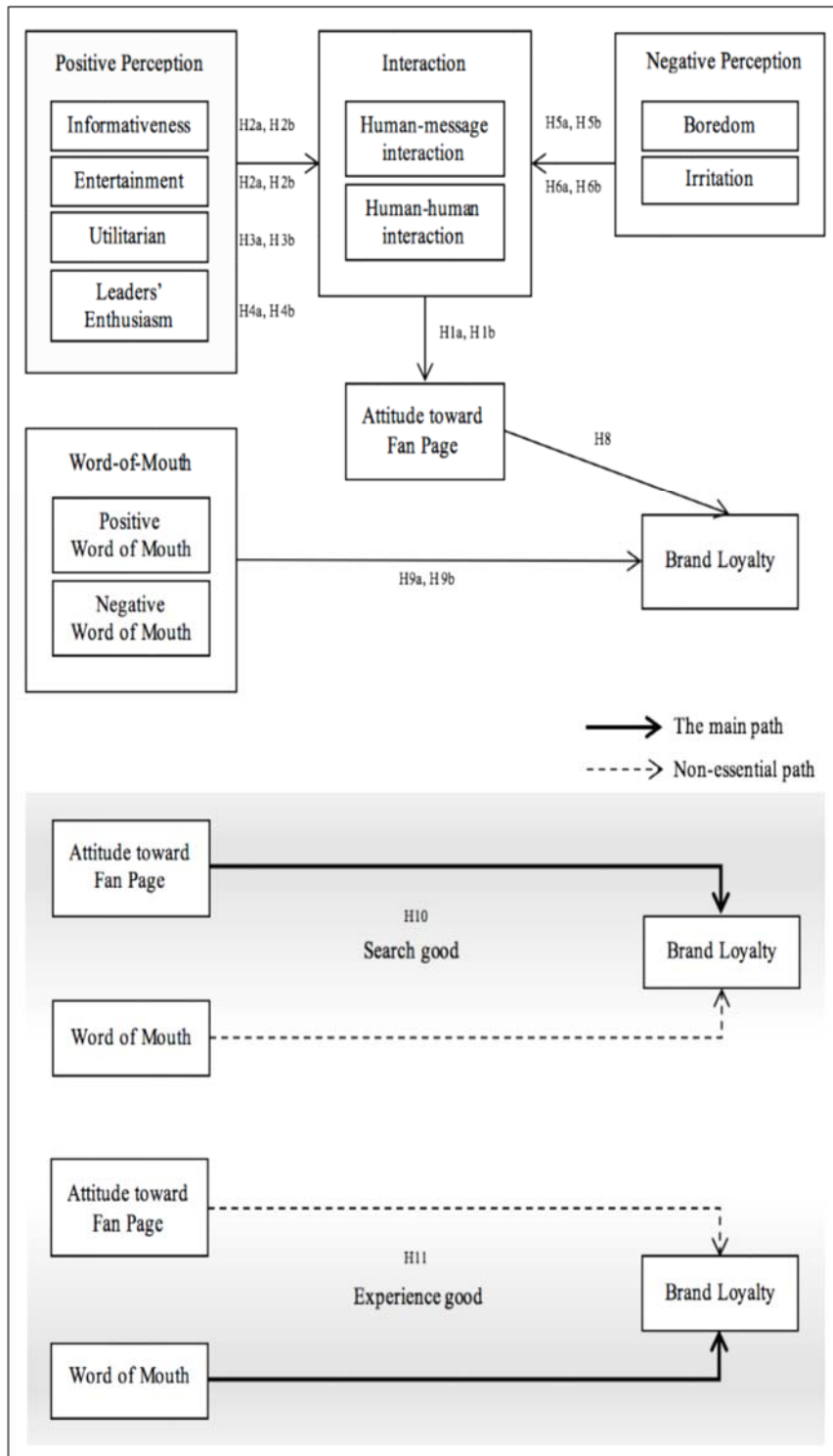


Figure 1. Research Model



### 3.2 Measurement Used for Research Variables

All the variables in the survey questionnaire were evaluated using measurement scales with good reliability and validity (as shown in Table 1) adopted from past literature. Additionally, each question in the measurement scale was expanded and the wording was modified based on the fan page's specific set-up. Multiple discussions, revisions, and pre-tests were conducted be-

fore administering the final survey questionnaire. Two professors from the Department of Information Management and three PhD students in relevant fields were asked to review the survey questionnaire to minimize errors from questions' inaccurate expressions and word use after translation. Thirty freshmen and sophomore college students who frequently visit fan pages were then provided ten minutes of class time to pre-test the questionnaire, which was then revised as per their comments.

Table 1: The References of the Measurement Scales

Variables	Reference
Informativeness	Rodgers et al., 2005
Entertainment	Rodgers et al., 2005
Utilitarian	Park et al., 2012
Leaders' Enthusiasm	Koh and Kim, 2003
Boredom	Iso-Ahola and Weissinger, 1990
Irritation	Luo, 2002
Human-Message Interaction	Ko et al., 2005
Human-Human Interaction	Ko et al., 2005
Attitude toward Fan Page	Ko et al., 2005
Positive Word-of-Mouth	Leisen and Prosser, 2004
Negative Word-of-Mouth	Leisen and Prosser, 2004
Brand Loyalty	Zeithaml et al., 1996

## 4. Data Analysis

### 4.1 Reliability and Validity Analysis

This study adopted Smart PLS 2.0 statistical software (Ringle, Wende, & Will, 2005) to analyze the measurement scales' reliability and validity. The study used 12 variables and a total of 49 questions were constructed. The questions were divided into 2 major types, formative and reflective indicators. As the human-human interaction construct is a formative indicator, it was eliminated from reliability and validity testing (Cohen, Cohen, Teresi, Marchi, & Velez, 1990). A confirmatory factor analysis was also performed which revealed that the factor loading for one of the questions in the human-message interaction construct (Hmi4) was less than the suggested value of 0.6 (Sharma, 1996); therefore, this construct was eliminated leaving 11 variables and a final total of 44 questions for construct analysis.

If the construct's Cronbach's  $\alpha$  is between 0.663 and 0.912, the threshold requirement of more than 0.6 is satisfied (Hair, Anderson, Tatham, & Black, 1998). Further, a factor loading value between 0.661 and 0.911 indicates that the scale has good convergent validity (Hair et al., 1998). All constructs' composite reliability (CR) is greater than the suggested threshold of 0.7 (Fornell & Larcker, 1981). Regarding validity, all scales' average variance extracted (AVE) are above the threshold of 0.5 (Fornell & Larcker, 1981), which also indicates that the scales have good convergent validity. Further, the square root of all variables' AVE is greater than their correlation coefficients, indicating that the scales in the have good discriminant validity (Fornell & Larcker, 1981). The present study also tested the correlation coefficients between the independent variables to determine the impacts of the multicollinearity effects on the study results. If the correlation coefficient between two

independent variables is less than 0.80, based on Pedhazur's (1982) recommendations, multicollinearity effects may not exist. The correlation coefficients for this study

indicate that multicollinearity effects do not threaten the study results. The results of the reliability and validity testing are shown in Table 2.

Table 2: Reliability and Validity Test Results

	AVE	CR	INF	ENT	UTI	LED	HMI	BOR	IRR	WMP	WMN	ATT	LOY
INF	0.627	0.870	<b>0.792</b>										
ENT	0.686	0.897	0.482	<b>0.828</b>									
UTI	0.518	0.843	0.488	0.451	<b>0.720</b>								
LED	0.795	0.921	0.532	0.444	0.420	<b>0.892</b>							
HMI	0.596	0.816	0.513	0.463	0.539	0.491	<b>0.772</b>						
BOR	0.791	0.929	-0.369	-0.475	-0.253	-0.343	-0.389	<b>0.889</b>					
IRR	0.739	0.934	-0.358	-0.440	-0.297	-0.285	-0.347	0.738	<b>0.860</b>				
WMP	0.732	0.891	0.335	0.428	0.341	0.391	0.451	-0.265	-0.224	<b>0.856</b>			
WMN	0.774	0.911	-0.179	-0.230	-0.135	-0.113	-0.177	0.423	0.386	-0.074	<b>0.880</b>		
ATT	0.606	0.902	0.485	0.634	0.547	0.541	0.517	-0.427	-0.386	0.518	-0.305	<b>0.778</b>	
LOY	0.590	0.878	0.414	0.392	0.399	0.383	0.439	-0.305	-0.347	0.532	-0.179	0.495	<b>0.768</b>

Diagonal elements in bold type are the square roots of AVE.

Consequently, Harman single-factor test was performed to check for possible influence of common method biases. The total variance for the single factor in which all scale items are loaded into is only 32.3%. This suggests that common method bias does not affect the data collected from the questionnaires.

#### 4.2 Direct Effect

The present study's model used partial least squares (PLS) statistical analysis. Compared to other statistical tools for structural equation models (SEMs) such as LISREL, PLS is not restricted by the variables' form and sample size, and can handle both reflective and formative indicators with good predictive and explanatory power (Anderson & Gerbing, 1998; Wold, 1982). SEM analysis requires the sample size to be at least five times greater than the number of parameters to be estimated; the present study have a total of 49 questions and 276 valid samples, which satisfies the definition of a small sample size. Additionally, formative type questions were included in the constructs; therefore, PLS was adopted as the primary analysis tool.

The PLS method was utilized for path analysis to estimate path coefficients and their significance. Based on Bollen and Stine's (1992) recommendation, a bootstrap

method was adopted for hypothesis verification (Chin, 1998). The present study's hypothesis verification was divided into two parts, the direct effect and moderating effect. Verification of the former was performed by analyzing the structural model; the results show that out of 17 direct effects, 13 are statistically significant (shown in Figure 2).

Additionally, the variance explanatory power of the independent variables relative to the dependent variables is between 0.198 and 0.458 which indicates that the independent variables demonstrated certain degrees of explanatory power relative to its dependent variable.

#### 4.3 Moderating Effect

The moderating effect was assessed in by comparing the differences in coefficients between the two major paths. For the search goods-oriented fan page cluster, the path coefficients of fan page attitude and the positive and negative word-of-mouth were compared to assess their impact on brand loyalty. This comparison revealed that fan page attitude's path coefficient is 0.372, greater than that of positive word-of-mouth (0.243) and negative word-of-mouth (-0.080); thus, fans' brand loyalty in the search goods-oriented fan page was primarily developed from fan page attitude. The path coefficients of both

positive and negative word-of-mouth are relatively weaker.

Similarly, for the experience goods-oriented fan page cluster, the path coefficients of fan page attitude as well as positive and negative word-of-mouth were compared to assess their impact on brand loyalty. The results of the comparison revealed that the path coefficient of positive word-of-mouth is 0.531, which is greater than that of

fan page attitude (0.273); thus, fans' brand loyalty in the experience goods-oriented fan page primarily developed from positive word-of-mouth. The path coefficient of fan page attitude was relatively weaker.

Based on the verification of the mediating effects demonstrated in the aforementioned 2 fan page clusters (search-oriented and experience-oriented), H10 was supported, and H11 was partially supported.

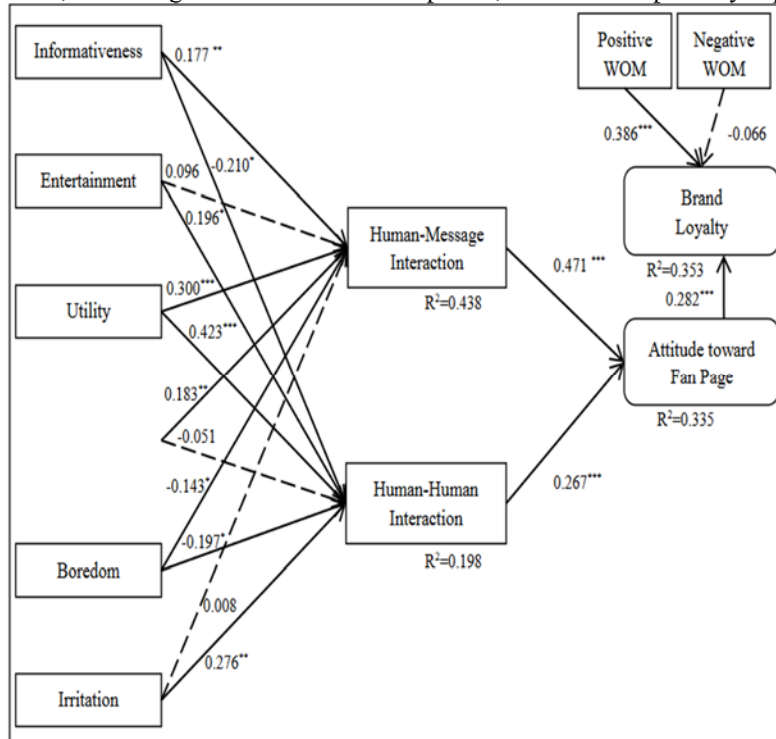


Figure 2: Direct Effect

## 5. Conclusion

### 5.1 Research Results and Implications

When fans feel that a fan page's product information is up-to-date, complete, and robust, they are likely to use the messages, images, and videos available on the fan page to engage in high levels of human-message interaction (H1a was statistically supported). Additionally, when the various product information provided on fan page can satisfy fans' needs, fans tend to spend longer time interacting with the various kinds of information available on the fan page instead of

engaging in human-human interaction, leading to a negative impact on the latter (H1b was not statistically supported).

As fan page participation primarily aims to obtain product information, when more entertainment content is available on a fan page, fans' human-message interactions will not be significantly impacted (H2a was not statistically supported). In contrast, a higher tendency will exist for human-human interaction (H2b was statistically supported) such as showing support or acknowledgement to fellow fans or to the fan page editor

by clicking the “like” button or writing responses. When fans observe that exclusive discounts or benefits exist, they will not only be willing to spend more time on human-message interaction (H3a was statistically supported), but are also likely to share their experiences and feelings with fellow fans. They may also provide comments for the fan page editor which results in more engagement in human-human interaction (H3b was statistically supported).

Fan pages rely on the page editor to increase fans’ product affinity and understanding; thus, when fans feel the editor’s enthusiasm, their brand perception experience increases stimulating them to become more curious about various product information, which results in more human-message interaction (H4a was statistically supported). As more attention is devoted to product information however, the impact on human-human interaction becomes insignificant (H4a was not statistically supported).

The higher the fans’ boredom level when visiting a fan page, the lower their human-message and human-human interaction. Boredom significantly and negatively impacts both interaction types (H5a and H5b were both statistically supported); thus, fans’ boredom experiences must be decreased to effectively increase interaction. When fans feel that some of the fan page’s information content is offensive or confusing, no significant negative impact was observed on human-message interaction (H5a was not statistically supported); however, when fans feel irritated or the posts as misleading, fans are likely to post complaints or negative comments reflecting their negative personal emotions, thereby mutually impacting fellow fans or the page’s editor (H5b was not statistically supported).

Analysis results indicate that when fans have high human-message and human-human interaction, this will positively impact the fan page attitude (H7a and H7b were both statistically supported). In other words, a positive fan page attitude can be promoted if fans’ human-message and human-human interaction is strengthened.

The higher the fans’ positive fan page attitude, the higher their brand loyalty (H8 was statistically supported). Additionally, the transmission of positive and negative word-of-mouth critically impacts brand loyalty; thus, a positive word-of-mouth has a significant and positive impact on brand loyalty (H9a was statistically supported), but a negative word-of-mouth does not have any significant impact on brand loyalty (H9b was not statistically supported). The current study’s discussion of negative word-of-mouth having no significant impact on brand loyalty suggests that even when a fan page consists of negative information, this will not dampen its fans’ brand loyalty regardless of media type, as the fans will search for further verification. Additionally, results of this study suggest that when fans have good impressions of or attitudes toward a certain brand, the fans might blame themselves or other factors for encountering negative word-of-mouth (Lau & Ng, 2001). These results are worthy of further study.

Regarding fans’ brand loyalty on search goods-oriented fan pages, the current study treated fan page attitude as the primary path, whereas the path impact of positive and negative word-of-mouth was found to be weaker (H10 was statistically supported). In experience goods-oriented fan pages, positive word-of-mouth was treated as the primary path which impacted brand loyalty while the fan page attitude’s path impact was found to be weaker (H11 was only partially supported).

## **5.2 Implications**

As Facebook fan pages have become popular, the uses and gratifications theory as a basis to explore fan page customers’ usage behaviors is conducive to analyzing the impact effects created by uses and gratifications scenarios. Additionally, few past studies have involved discussions based on positive and negative perception experiences; thus, the current study did not only integrate positive and negative experiences, but also considered human-message and human-human interaction in incorporating the traditionally and commonly discussed word-of-

mouth with fan page operation into the same research model for investigation. The current study hopes to effectively explore the depth and breadth of impact factor research on brand loyalty, and to serve as an important foundation for future studies.

Presently, there have been little to no studies on fan pages that have classified fan page products or services based on product orientation. The current study built on a research foundation of past product classifications to explore the differences in brand loyalty formed between different product fan page types. The current study also hopes to apply the generated analysis results to expand the scope of application, and to serve as an important reference for future academic research in related disciplines.

A brand page's business goal is to promote an enterprise's brand image, which serves as a type of live business card. Through this interaction, instant communication and browsing are made possible, as well as instant forwarding of messages to share with others, making this virtual business card more convincing than a physical one.

Further, perceptions of experiences create a multi-dimensional impact on interactions. First, from a positive perception experience perspective, informativeness, in addition to being the latest, most comprehensive, and product-related, the content of product information and marketing propaganda posted on a fan page can be presented in a non-advertising manner which emphasizes comfort and conversational communication with fans, rather than in a non-interactive, blunt script. In terms of entertainment, fan pages can discuss its private label's success stories and development processes, supplemented by product introduction in a micro-movie format, to create a better impression on fans and to promote the brand. Additionally, fan pages can use current affairs and post images, music, or videos to stimulate fans' sentiment, imagination, and inspiration. These can enhance fans' enjoyment when browsing the fan page. In terms of utility, fan pages can be

generous in its promotions or in offering discounts to its fans, and be mindful that fans are the key to impacting word-of-mouth. Moreover, this study recommends organizing a chart that summarizes various product-related information allowing fans to effectively understand products and enhance positive feelings toward the fan page. In terms of the editor's enthusiasm, the editor, in addition to providing the best effort to actively operate the fan page, can also discuss the latest information about its private label from an expert's perspective, while demonstrating his or her professionalism as a leader and editor and fostering more fans' trust toward the brand. Moreover, the editor should encourage feedback and sharing of related articles from fans to foster exchange of views and further promote the brand. These recommendations primarily aim to foster fans' willingness to interact and exchange with the brand as naturally and energetically as chatting with friends, rather than interacting through a structured product information announcement or advertising.

Further, in terms of promoting a positive relationship between fan page attitude and brand loyalty, the current study suggests that the fan page could organize some online or offline activities, in addition to providing positive experiences, to promote interaction. For example, fans can physically visit the brand's retail stores to receive a stamp on a collection card for a surprise gift, food tasting, shows, charity activities, or tours. Fans are likely to bring friends and family members to join these highly interactive events.

Second, regarding boredom, from a negative perception experience perspective, many companies have swarmed to build fan pages for their enterprise brands just to keep up with the trend, without expending much effort or thoughts on how to properly manage the fan page. These fan pages often only contain product information or advertising propaganda, or simply repost articles, but have no interesting posts or follow up on fans' messages. This type of fan page operation is bound to negatively impact fans' participation and interaction, resulting in

fans gradually becoming disappointed and eventually leaving the fan page. Regarding irritation, research results indicate that boredom significantly impacts human-human interaction. This also implies that a fan page should seriously study fans' resulting human-human interaction due to such negative experiences as negative emotional responses, complaints, or recommendations for improvement. Companies should immediately devise measures to minimize damage and provide a sincere proposal to resolve and compensate for mistakes and regain good will.

Finally, regarding the mediating effects of search goods and experience goods orientation, the current study believes that for search goods, the fan page can focus on its operational performance to create various well-planned perception experiences, such that these can foster pleasant browsing experiences. Fan pages may further extend and integrate their official website and other social media accounts, such as blogs, to bring comprehensive information to the fans and customers, and promote brand affinity.

Regarding the experience goods orientation, the current study suggests that fan pages can organize sporadic fan activities or offer rewards to motivate feedback from loyal customers, such that they may compel more customers to join the fan page. Hence, creating a more positive word-of-mouth and promote brand loyalty. Without these motivating factors, even satisfied customers may not be willing to refer the brand to others (Wirtz & Chew, 2002).

Regarding negative word-of-mouth, the current study recommends that the fan page must honestly address any negative word-of-mouth. For example, negative comments should not be removed from social media, but should be handled professionally and communicated truthfully. When the incident is over, the negative discussion should naturally dissipate and the incident should be handled as a growth experience. Further, during a brand crisis, the negative comments and discussions from customers can be seen as recommendations

for the company's improvement. This is a valuable opportunity for the company to not only compensate for its mistakes and learn a lesson, but also for the brand to interact with customers and leave a good impression on both new and existing customers. Only a brand that is serious about its operation will be able to perpetuate positive word-of-mouth in the minds of customers.

### 5.3 Research Limitations

This study made every effort to remain strictly objective throughout the entire research process; however, several factors such as manpower, time, and costs limited the research study. Consequently, the major limitation of this study is the questionnaire's setup. The respondents were based only from the randomly selected 20 commercial brand pages out of the top 50. The authors of this study feel that a more comprehensive fan page collection was both restricted and impossible; thus, further study could be done to verify if the current model is applicable in other brand pages' operations.

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