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Effects of Facebook Fan Page Users' Social Capital Needs, Innovativeness and Self-Presentation Needs on Interactive Behavior: Brand Identification as a Moderator Variable

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Abstract

Background/Objectives: This study focuses on the effects of Facebook fan pages which have recently risen in value as a unique, online communication channel. **Methods/Statistical analysis:** A survey was conducted using a sample of 310 high school-aged men and women who have ever used a Facebook fan page. **Findings:** First, the results of the analysis found that Facebook users' perceptions (their social capital needs, innovativeness and self-presentation needs) indirectly affected moderator variables, such as brand identification. Next, the significant gender differences were analyzed. Any independent variables of both men and women turned out to not significantly affect their interactive behavior. **Application/Improvements:** This study suggests that the psychological tendencies of Facebook fan page users affect their interactive behavior via moderator variables, such as brand identification. Theoretical and practical implications are discussed, based on the results from the present study.

Keywords: Effects of Facebook Fan Page, Innovativeness, Interactive Behavior, Self- Presentation Needs, Social Capital Needs

1. Introduction

Brand fan page used as companies communication tools. This provides as a very important factor to be form of positive relationships between consumers and brands. This study notes that interactive behavior, according to the disposition of teenage Facebook fan page users, is used by as a communication tool. Users who visit Brand fan page acquire brand information through the brand community and directly interact with Brand fan page by participating such as the event, commenting, sharing ideas with other community participants.

This study predicts that these interactions can be affected by psychological factors associated with participation motivation in Brand fan page and also by the users' attitudes toward the brand. Thus, this study sets disposition of teenage Facebook fan page users social capital needs, innovativeness and self-presentation needs that

these factors may impact the effect of interactive behavior on a Facebook fan page. In addition, this study analyzes whether brand identification controls the influence of these factors.

By conducting a survey targeting teens who is becoming increase product purchasing power and who are also the active user group of Facebook fan page, we are to derive practical implications from the results.

2. Background of the Study

2.1 Interactive Behavior on Social Networking Service (SNS)

Interactive behavior, regarded as an important attribute of communication, is defined as the degree of closeness of a relationship between parties, seen through the exchange

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of opinions, information and feelings among members1. But the meaning has been expanded to include acts at the individual level, realizing the existence and the value of confirming the presence and identity of individual information users, in place of the simple communication behavior of meeting the individual's needs by seeking and using information simply obtained through social media.

The formation of the online virtual space as a brand's point of contact with consumers caused a significant change in social behavior that has moved beyond the simple identity switch of an individual. The SNS community is built around content sharing between users through user participation features, such as comments².

Information sharing, exchange process, interaction and cooperation are important among members in the continuance of the online community. Continuous and repetitive interactive behavior maintains lasting relationships and increases cooperation.

Since consumers show an active and strong commitment in the online community, they experience the brand in a variety of ways, both in real life and online. This experience creates a sense of unity between the brand and the consumer's identity, which leads to brand loyalty³.

Thus, this study considers a relational point of view, looking at the strategic means of customer relationship formation through interactive behavior and the brand identification on a Facebook fan page

2.2 Social Capital Needs

The behavior of a new form of communication and forming relationships through SNS enables the accumulation of social capital⁴. Social capital includes useful elements, such as social networks, norms, trust, and reciprocity that can facilitate cooperation and social trading for mutual benefit. Social capital has been defined from a macro view of society rather than from an individual view of society and is described in two dimensions⁵. Bridging social capital supports getting to know new friends and building a wide social network, although a sense of fellowship is weak. Bonding social capital supports close relationships, such as with friends or family. In this dimension, relationships are considered to be at a level within an organization that is related to emotional support and actual interests because strong ties are formed. Social capital needs are gradually strengthened by people's relationships and interactions.

A study on the relationship between SNS and the social capital needs of content creators, community members shared new information and built relationships⁶. According to previous studies examining the relationship between bridging social capitals, bonding social capitals, i.e., maintaining social capital perceived by individuals and using the strength of Facebook targeting Facebook users, linking capital was found to be more useful than united social capital in Facebook usage. Internet usage patterns have a positive effect on social capital. A person who participated in a lot of community activities online formed a larger social network, and a person who searched for social problems or politics-related information or frequently posted comments on related posts showed higher citizen participation.

To summarize previous studies on the relationship between SNS and social capital needs, in SNS, communication plays a positive role in promoting interpersonal cooperation based on the community because it minimizes costs and facilitates the approach to information. On the other hand, regarding social capital as a thing to enhance interpersonal interactive behavior, it can be predicted that a community where opinions are exchanged through interactive communication will soon create new social capital.

Therefore, compared with the existing traditional media, SNS creates capital between individuals, promotes a sense of belonging in users and maintains persistent relationships by enabling interactive behavior through its technological and social usefulness.

2.3 Innovativeness

Among the personal factors that predicted media use and behavior in the study, innovativeness was conceptualized as the extent that an individual accepted reform⁷. Innovative people were generally highly tolerant of ambiguity, showed strong preferences for risk, and were highly independent and confident. People with high levels of intelligence and creativity, or people with a many-sided way of thinking tended to show innovative actions. Because of these characteristics, innovativeness was closely related to other key character attributes, such as introversion, sensory exploration, and risk adoption. Most studies discussing innovativeness are about the acceptance of new technologies or media devices and discuss personal innovation as a main variable in predicting the acceptance of a new technology. In Korea, studies of innovativeness have found that the higher innovation of a user increases their satisfaction with smart phones.

Advance research argued that video UCC users are more innovative than non-users. Park argued that there is a positive relationship between the overall adoption and use of new media devices, and the user's innovation⁸. Advance research argued that Twitter users who were highly innovative had a strong willingness to send messages while, those with a less innovative disposition tended to stick to receiving messages⁹.

2.4 Self-Presentation Needs

Self-presentation needs are related to one's personal disposition and how he or she passes information to others. A self-expression effort is a process of controlling and managing how one's projected information affects how he or she is perceived¹⁰. Individuals within groups said that they tried harder to adapt their behavior and improve their self-presentation efforts to meet the expectations of others¹¹. These self-presentation characteristics also apply to cyberspace. People tend to express themselves in exchanges and encounters online in a way that will form a desired impression.

In SNS, people express themselves while building relationships, communicating with others, and quickly acquiring information. Self-presentation in an online space is the act of creating a positive social image for others and optimizing the probability of avoiding an undesirable impression. Self-presentation is seen in selective expression, such as highlighting strengths or omitting negative information related to themselves¹².

It can be said that self-presentation in SNS is strong because people are less worried about their appearance to others online than in real society and they feel a sense of stability in relations with others with less burden. It can be seen that people desire to form a consensus; they check other people's reactions, become involved in self-presentation in their online interactions and actively participate in and make use of SNS. This study reported that adolescents who expressed themselves strongly and who hung out with peers while being sensitive to fashion tried to express their thoughts in their own community in a variety of ways, experienced other people's reactions and established their self-esteem through social interactions with such behavior intention.

2.5 Brand Identification

Brand identification was defined as the degree a consumer matched their self-image to a brand image. A study on consistency between brand and self-image started to attract attention by B, presenting the need for research on the sense of unity in the relationship between consumer and brand, that is, brand identification and A deepened the study on this¹³. Recently, studies were carried out which dealt with- image consistency and consumer-brand relationships.

Advanced research examined the effect of brand personality and self-image consistency on consumer satisfaction and the consumer-brand relationship¹⁴. The study's findings showed that consistency between brand-personality and self-image had a positive effect on consumer satisfaction and the consumer-brand relationship. Consumer satisfaction was also found to have a positive effect on both the consumer-brand relationship and loyalty. The study reported that consumers with high brand identification express themselves through the brand and feel attachment to and positive feelings toward the brand. These consumers were highly likely to continue to purchase the brand. When the brand is able to protect and improve the consumer's self-image through increased identification with the brand, the brand's image better expresses the consumer's self-image.

As a result, the consumer's self-image and the brand's image coincide more and the evaluation of the brand identification improves, leading to increased purchases of the brand and the consumers becoming loyal customers.

Study 1: Will the psychological tendencies (social capital needs, innovativeness and self-presentation needs) of adolescents on a brand fan page on Facebook affect interactive behavior according to their brand identification?

We will also examine the gender differences in the influence of the three independent variables presented. Gender, the most basic demographic indicator, is expected to provide useful suggestions for targeting the brand fan page. Gender differences in SNS usage patterns will be presented in the form of a research question, excluding the direction of prediction as follows because its significance was derived differently depending on studies¹⁵.

Study 2: Will the psychological tendencies (social capital needs, innovativeness and self-presentation needs) of adolescents on a brand fan page on Facebook affect interactive behavior according to their different genders?

3. Methods

3.1 Data Collection

Data collection targeted students attending high schools located in Gyeonggi-do; the grade levels were evenly distributed. A total of 324 survey questionnaires were collected from respondents, 310 of which were used for final analysis, after excluding 14 questionnaires for insufficient information.

3.2 Product Selection

In studies on the classification of online community product types, some scholars divided the types of products into experience good and search good¹⁶. When selecting a brand to use in this study, judging that experience good will be suitable for use of adolescents, we pre-examined the personality and awareness of the brand. A survey evaluating personal experience with and preference for this real brand was also included in the survey and was processed as a control variable during the statistical analysis

3.3 Measures

As shown in the Table 1, the reliability of the scale found before hypothesis testing. Social capital needs were measured with five items⁹. Innovativeness was measured with five items¹⁷. Brand identification was measured with nine items¹⁸. Interactive behavior was measured with seven items¹⁹. The items were measured using a five-point Likert scale. The reliability of the scale was sufficient with a Cronbach's α value

Table 1. The reliability of the scale

Variables	Classification	Items	Cronbach's a
Independent variable	Social capital needs	5	.804
	Innovativeness	5	.714
	Self-presentation needs	5	.714
	Brand identification	9	.947
Dependent variable	Interactive behavior	7	.906

4. Results

4.1 Correlation Coefficients

As shown in the Table 2, the correlation coefficients of the variables found before the study problem testing (i.e., social capital needs, innovativeness, self-presentation needs and brand identification).

Table 2. Correlation coefficients

	Social capital needs	Innova- tiveness	Self- presen- tation needs	Brand identifi- cation
Social capital needs	1	0.268** 0.000	0.310** 0.000	0.217** 0.000
Innovativeness	0.268** 0.000	1	0.404** 0.000	0.240** 0.000
Self- presentation needs	0.310** 0.000	0.404* 0.000	1	0.125* 0.030
Brand identification	0.217** 0.000	0.240** 0.000	0.125* 0.030	1

4.2 Results

As the three-step analysis, injected interaction between social capital needs and brand identification increased the coefficient of determination (R^2). As shown in Table 3,4 the results indicated significant (β =-0.179, p=ns).

The three-step analysis, injected interaction between innovativeness and brand identification increased the coefficient of determination (R^2). The results indicated significant (β =-0.252, p=ns). The three-step analysis, injected interaction between self-presentation needs and brand identification increased the coefficient of determination (R^2). The regression coefficient of interaction was not relevant enough to be significant (β =0.016, p=ns).

Thus, brand identification doesn't represent the moderator variable in any of psychological factors.

The significant difference based on gender, was analyzed. Both men and women represent to not affect interactive behavior at a 95% confidence interval. Although the gender effect was seen in the social capital (men are negative and women are positive) it indicated that these conflicting results further lowered the level of capital influence by causing offsetting effects when ana-

Variable	R ²	F	p	Interaction before input: β	Interaction after input: β
Social capital needs (A1)	0.017	5.243	0.023*	0.131	0.016
Brand identification (B1)	0.347	78.929	0.000**	0.588	0.715
(A1) x (B1)	0.348	52.723	0.259		-0.179
Innovativeness (A2)	0.058	16.241	0.000**	0.227	0.746
Brand identification (B1)	0.355	81.686	0.000**	0.091	0.733
(A2) x (B1)	0.358	54.982	0.243		-0.252
Self-presentation needs (A3)	0.259	4.509	0.075	0.509	-0.003
Brand identification (B1)	0.347	68.589	0.000**	0.589	0.575
(A3) x (B1)	0.347	14.016	0.670		0.016

Table 3. Hierarchical analysis of brand identification

lyzing all respondents. It can be concluded that there is no significant gender difference the effects of the three independent variables on interactive behavior.

Table 4. Multiple regression analysis of gender

Variables	Non- standardized coefficient		Standardized coefficient	t-value	(Sig.)
	Beta	S.E	β		
Men	-0.074	0.085	-0.065	-0.864	0.389
	0.149	0.080	0.145	1.873	0.063
	0.017	0.090	0.015	0.187	0.852
Women	0.062	0.066	0.068	0.941	0.348
	0.076	0.070	0.081	1.086	0.279*
	0.022	0.088	0.018	0.246	0.806

^{*} p<.05, Adjusted R2(men)=.366, Adjusted R2(women)=.250

5. Discussion and Conclusion

In this study, we demonstrate teenage Facebook fan page users level of interactive behavior, as they expressed themselves through voluntary contents creation and information sharing. The study found that psychological disposition on the users' interactive behavior influence on their degree of brand identification.

The result as following; Fist, in case of Brand identification, when visiting a Facebook fan page did not perform a significant control effect on interactive behavior. Instead, brand identification represented a significant

main effect in the interactive behavior of teenage users. In other words, as identification is more increase (i.e., as the brand image better expresses the self-image, the brand image and the self-image match, and the brand protects and improves the self-image), the interactive behavior also showed a positive attitude toward evaluation of the brand. The result was unexpected that no statistical significance in the causal relationships predicted based on theoretically sufficient case.

Some limitations of the study suggest directions for further study. First, this study was carried out by targeting the subject's most recent experience with a brand's Facebook fan page. Future studies will need to expand the scope of the practical implications by trying the analysis for product family with other properties. Second, this is a study on the online behavior analysis of adolescents, so the subjects were limited to high school students. The results are limited by not closely identifying the characteristics of the phenomenon shown in adolescents with the behavior of adults.

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^{*}p<.05, **p<.001

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