SNS Characteristics of Mobile Communication Company Influencing Brand Attitude and Purchase Intention

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Abstract

Background/Objectives: The purpose of this study is to investigate the influence of SNS characteristics on brand attitude and purchase intention as the importance of SNS marketing is increasing recently.

Methods/Statistical analysis: The subjects of this study were consumers who have visited SNS of domestic mobile carriers in recent years. Data collection was conducted online. A total of 31 questions were included, including 6 general characteristics and 25 questions on the Likert 5-point scale. The collected data was utilized by SPSS Ver.22 statistical package for empirical analysis. The main analyzes were frequency analysis, validity, reliability, and multiple regression analysis.

Findings: This study examined the effect of mobile carrier SNS characteristics on the purchase intention and empirically analyzed whether the brand attitude had a mediating effect on the relationship between SNS characteristics and purchase intention. The empirical results show that the measured variables correlate with each other. First, SNS characteristics have a positive effect on purchase intention. As a result of multiple regression analysis, the standardization coefficient (β) showed that information providing had the highest influence on purchase intention as .355***. The explanatory power (R^2) of the relationship between SNS characteristics and purchase intention was .485 (48.5%). Second, SNS characteristics have a positive effect on brand attitude. Benefit had the highest impact on brand attitude of .418***. The explanatory power (R^2) of SNS characteristics on the influence of brand attitude was .538 (53.8%). Third, brand attitude affects purchase intention. Finally, Brand attitude was partially mediated between SNS characteristics and purchase intention. The characteristics of SNS are important to increase purchase intention, and the mediating effect of brand attitude is verified.

Improvements/Applications: This study emphasizes the importance of SNS characteristics through brand attitude to increase purchase intention. It will be an important resource for suggesting SNS marketing methods that effectively utilize SNS characteristics.

Keywords: SNS characteristic, brand attitude, purchase intension, SNS marketing

1. Introduction

The recent development of SNS (Social Network Services) has greatly influenced corporate marketing strategies. Many companies use SNS to communicate with customers and analyze them for marketing strategies. Mobile carriers try to increase consumer intentions by promoting products and services while communicating with customers online via SNS. SNS users purchase products that are suitable for them while comparing mobile communication products and services. Mobile carriers can quickly observe user preferences and inconveniences on SNS to quickly accept and process them. SNS marketing is recognized as a management activity that enhances the competitiveness of mobile carriers. Despite the importance of SNS marketing, research on SNS marketing academia in the field of mobile carriers is still insufficient. The purpose of this study is to examine which factors, such as information providing, interactivity, and benefit, which are SNS characteristics, influence the brand attitude and purchase intention of mobile carriers more importantly.

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2. Materials and Methods

2.1 SNS Characteristics

SNS(Social Network Sites) is defined as a web-based service that configures an individual's profile, shares connections formed through relationships between individuals, and supports interactions between individuals based on those connections (Boyd and Ellison, 2007). Recently, with the popularization of smartphones, the number of SNS users is rapidly increasing, and the importance of marketing activities using SNS is increasing. SNS marketing has the advantage of being able to deploy real-time marketing activities to the global market without the limitation of time and space online. As a result, SNS marketing is becoming more and more aware of its importance, and this trend is expected to accelerate further. In this changing environment, companies will be able to secure more competitive advantage in the market by using SNS marketing more actively. Studies that measure the effects of SNS marketing mainly deal with SNS characteristics as independent variables, and the attitudes and behavioral indicators of SNS users are used to measure the effects. In this paper, SNS characteristics are classified into three categories: information providing, interactivity, and benefit. Information providing is defined as the characteristic that SNS receives and shares useful information so that consumers can make easier final decisions about products and services (Smith and Swinyard, 1982). Interactivity is the degree of reaction through SNS users' messages and information. And it can be defined as the process of exchanging messages and information (Rafaeli and Sudweeks, 1997). Interactivity is a vehicle for building good relationships with consumers and is the most fundamental element that increases customer engagement (Fortin and Dholakia, 2005). Benefit is defined as a feature that allows users to receive information and services on products more easily and quickly through SNS, thus reducing the time spent searching for information and making decisions (Bachiochi et al., 1997). The user can purchase the product at a low price by directly receiving a benefit through promotions, events and discount coupons of the product (Hassanein and Head, 2005).

2.2 Brand Attitude

Brand attitude is defined as the feeling that an individual feel about the brand as positive or negative, favorable or unfavorable, positive or negative (Fishbein and Ajzen). Brand attitude is a comprehensive evaluation factor that consumers feel about a brand, and it is an important criterion that affects the buying behavior of consumers choosing a specific brand (Keller, 2003). Brand attitude is an important factor of consumer behavior that directly affects consumer's purchasing behavior, and it is important because brand attitude, once formed, is not easily changed but is stable and continuously maintained.

2.3 Purchase Intension

Purchase intention is an area of behavioral intention, which is the individual's will and belief realized by future behavior as a result of the attitude that the individual has made toward a particular company (Mitchell and Olson, 1981). Many previous studies have pointed out a close correlation between purchasing intention and actual purchasing behavior. Therefore, purchase intention can be used as a prediction of actual buying behavior (Shin et al., 2012).

2.4 The Research Model and Hypothesis

2.4.1 Research Model

The purpose of this study is to identify the relationship between SNS characteristics and brand attitude, and purchase intention based on theoretical considerations of previous studies. As SNS characteristics, information providing, interactivity, and benefit were selected as independent variables. Brand attitude was chosen as a parameter. The purchase intention was selected as the dependent variable. Based on these previous studies, hypotheses were set up to analyze the effect of SNS characteristics on purchase intention. The research model for this study is shown in [Figure 1].

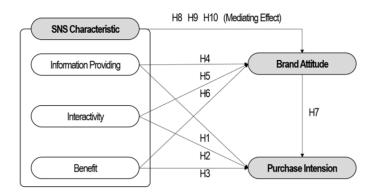


Figure 1. Research model

2.4.2 Research Hypothesis

Based on the research model shown in [Figure 1], the hypothesis about the relationship between SNS characteristics and purchase intention was set. Next, a research hypothesis was established about the mediating effect of brand attitude on the relationship between SNS characteristics and purchase intention.

- H1. Information providing will have a positive effect on purchase intention.
- H2. Interactivity will have a positive effect on purchase intention.
- H3. Benefits will have a positive effect on purchase intentions.
- H4. Information providing will have a positive effect on brand attitude.
- H5. Interactivity will have a positive effect on brand attitude.
- H6. Benefits will have a positive effect on brand attitude.
- H7. Brand attitude will have a positive effect on purchase intentions.
- H8. Brand attitude will mediate the impact of information providing on purchasing intentions.
- H9. Brand attitude will mediate the impact of interactivity on purchasing intentions.
- H10. Brand attitude will mediate the relationship between benefits and purchase intentions.

2.4.3 Operational Definition of Variables

Based on the results of previous studies, this study divided 15 SNS characteristics into information providing, interactivity, and benefit to construct a total of 15 questionnaires. Five measures of brand attitude and purchase intention were adapted according to the purpose of this study. The operational definition of each variable and the composition of the questionnaire are summarized as shown in [Table 1].

Table 1. Operational definition of variables

Evaluation items	Measurement variable	Operational definition	Configure questionnaire	Researcher
	Information providing	Diversity, Accuracy, Usefulness, Promptness, Interesting	5 questions	(Smith and Swinyard, 1982)
SNS Characteristics	Interactivity	Communication, Information exchange, Reaction, Customer Consultation, Comment	5 questions	(Rafaeli and Sudweeks, 1997), (Fortin and Dholakia, 2005)
	Benefit	Easy to search, Price discount, Time saving,	5 questions	(Bachiochi

		Comparative search, Event		et al., 1997), (Hassanein and Head, 2005)
Brand Attitude	Brand Attitude	Good impression, Friendliness, Trust, Satisfaction, Attention	5 questions	(Fishbein and Ajzen); (Keller, 2003)
Purchasing Intension	Purchase Intension	Service information, Communication, Price, Experience, Event,	5 questions	(Mitchell and Olson, 1981); (Shin et al., 2012)

3. Results and Discussion

3.1 Empirical Results

3.1.1 Demographic Characteristics Analysis

In this study, a total of 302 samples were used to collect data from consumers who have experienced SNS within the last year. In order to understand the distribution of collected samples, frequency analysis of general characteristics was conducted. The frequency analysis showed that 45.0% (136) were male and 55.0% (166) were female. The age-specific characteristics were highest in the 30s (34.4%), followed by 32.1% (97) in the 40s, and 27.8% (84) in the 50s and over. The highest level of education was 46.4% (140), and the next was 44.7% (135). The occupation was 14.9% (45), followed by 13.6% (41), and 11.6% (35) officials. The average income was 23.2% (70) with less than $3 \sim 4$ million won. The number of visits was the most frequent with $3 \sim 5$ visits (47.7%, 144).

3.1.2 Descriptive Analysis

In this study, the descriptive statistical analysis of the collected data showed that the standard deviation was 3 or less, the skewness statistical value 3 or less, and the kurtosis statistical value 3 or less. Individual measures of 25 questionnaires were analyzed to ensure normality (Roukiane and Marzouki, 2018); (Salim and Hariandja, 2018).

3.1.3 Exploratory Factor Analysis and Reliability Analysis

An exploratory factor analysis was conducted to test the validity of individual measurement variables. Principal component analysis was used, and the rotation method was Varimax method. The eigenvalue was set to 1.0 or higher as a selection criterion for the measurement variable. In this study, factor analysis was conducted twice. Finally, the KMO index is 0.936, above the normal level of 0.7. The result of Bartlett's unit matrix is 0.000, which is smaller than the general level of 0.05, which is 0.000, which makes it suitable for exploratory factor analysis. Interactivity 4 and interactivity 5 that inhibit discriminant validity and concentration validity were removed and classified into 5 factors. Reliability analysis analyzed Cronbach's alpha coefficient for Internal Consistency Reliability to secure homogeneity between measured variables obtained from exploratory factor analysis. As a result of reliability analysis, Cronbach's alpha coefficient of all the measured variables is over 0.6, which is a general level, and it is judged that reliability is secured even if the separate item is not removed. The summary of the exploratory factor analysis and the reliability analysis of the measurement variables for the questionnaire is shown in [Table 2].

Table 2. Exploratory factor analysis and reliability analysis

Measurement _ item	Exploratory factor analysis (Intensive validity & Discriminant validity)						
	Benefit	Purchase Intension	Brand Attitude	Information providing	Interactivity	- Commonality	Cronbach's alpha
Benefit 3	.777	.156	.229	.214	.115	.739	
Benefit 2	.766	.205	.140	.089	.140	.676	.880
Benefit 5	.742	.228	.168	.123	.184	.679	.000
Benefit 4	.734	.188	.260	.140	.123	.677	-

Benefit 1	.685	.179	.278	.239	036	.638	
Purchase Intension 2	.192	.763	.210	.270	.071	.741	
Purchase Intension 4	.252	.757	.250	.279	.115	.790	=
Purchase Intension 3	.284	.724	.216	.174	.145	.703	.892
Purchase Intension 5	.222	.712	.277	.207	.143	.697	-
Purchase Intension 1	.135	.676	.273	.134	.172	.597	=
Brand Attitude 2	.251	.263	.756	.172	.167	.762	
Brand Attitude 3	.217	.298	.733	.259	.094	.749	-
Brand Attitude 4	.234	.265	.727	.184	.147	.709	.888
Brand Attitude 5	.334	.260	.651	.141	.233	.676	=
Brand Attitude 1	.327	.298	.543	.244	.127	.566	=
Information providing 1	.196	.157	.107	.771	.086	.677	
Information providing 3	.272	.186	.043	.742	.105	.672	-
Information providing 4	.171	.242	.269	.714	.114	.683	.851
Information providing 5	.196	.293	.339	.692	.113	.731	-
Information providing 2	040	.143	.225	.602	.340	.550	-
Interactivity 1	.103	.104	.117	.081	.801	.683	
Interactivity 2	.096	.110	.272	.189	.710	.636	.678
Interactivity 3	.304	.267	.037	.254	.575	.559	-
Eigenvalue	3.673	3.534	3.247	3.201	1.937		
% of Variance	15.972	15.363	14.118	13.918	8.421		
% of Accumulated	15.972	31.335	45.453	59.371	67.793		
Kaiser-Mey Sample							.936
Bartlett's unit matrix test		Approximate Chi Square	4106.873	df	253	p-value	0.000

3.1.4 Correlation Analysis

Through exploratory factor analysis, this study eliminated measurement items that impeded concentration and discriminant validity and secured one-dimensionality. It consisted of five variables that were calculated by averaging among the measured variables that had homogeneity through reliability analysis. Correlation analysis was performed to determine the degree of directionality and density among the measured variables (Sharif, 2019); (Smail, 2019). In Table 3, the correlation between the measurement variables showed that the information providing ability was highly correlated with purchase intentions as .602**, followed by the brand attitude as .595**. The brand attitude was shown to have a high correlation coefficient of .646** for benefit, followed by a correlation between information providing and .595**. Purchase intention was highest in the positive direction, with .699** and brand attitude. Next, there was a correlation between information providing and .602**. The correlation analysis results of all the measured variables showed statistically significant positive correlations. It is judged that it is possible to analyze the causal relationship among the constructs. A summary of the correlation analysis results is shown in [Table 3].

Table 3. Summary of correlation analysis results

Constructs	N	Mean	Standard Deviation	Information providing	Interactivity	Benefit	Brand Attitude	Purchase Intension
Information providing	302	3.980	0.617	1	.491**	.507**	.595**	.602**
Interactivity	302	3.640	0.690	.491**	1	.433**	.509**	.472**
Benefit	302	3.597	0.619	.507**	.433**	1	.646**	.586**
Brand Attitude	302	3.856	0.631	.595**	.509**	.646**	1	.699**
Purchase Intension	302	3.805	0.646	.602**	.472**	.586**	.699**	1

^{**.} The correlation is significant at the .01 level (both sides).

3.1.5 Hypothesis Test Result

To test the hypothesis of this study, multiple regression analysis was performed using the SPSS ver.22 statistical package. [Table 4] shows that Durbin-Watson is 2.129 in the relationship between SNS characteristics and purchase intention, 2.130 in SNS characteristics and brand attitude, and 2.067 in the relationship between brand attitude and purchase intention. Independence was secured. The VIF (Dispersion Expansion Coefficient) indexes are all less than 10, indicating that there is no multicollinearity between independent variables. The independence of the independent variables is ensured, making it suitable for multiple regression analysis. In the relationship between the consultant's SNS characteristics and purchase intention, the non-standardized coefficient (B) showed that the SNS characteristics had a positive effect on the purchase intention. Hypotheses H1, H2, and H3 hypotheses were all adopted. Next, the standardization coefficient (β) shows that information providing has the highest influence on purchase intention, which is .355***. The explanatory power (R²) of the relationship between SNS characteristics and purchase intention was .485 (48.5%). Next, looking at the non-standardized coefficient (B) in the relationship between the consultant's SNS characteristics and brand attitude, it was found that SNS characteristics had a positive effect on brand attitude. Hypotheses H4, H5, and H6 hypotheses were all adopted. Next, the standardized coefficient (β) showed the highest impact on brand attitude as .418***. The explanatory power (R²) of SNS characteristics on the influence of brand attitude was .538 (53.8%). Finally, in the relationship between brand attitude and purchase intention, the non-standardized coefficient (B) showed that brand attitude had a positive effect on purchase intention. Hypothesis H7 was adopted. The explanatory power (R²) on the influence of brand attitude on purchase intention was .488 (488%). [Table 4] summarizes the hypothesis test between SNS characteristics and purchase intention, the hypothesis test between SNS characteristics and brand attitude, and the hypothesis test between brand attitude and purchase intention through multiple regression analysis.

Table 4. Summary of multi- regression analysis results

Hypothes is	Constructs	В	β	t	p-value	VIF	Results
	(Constant)	0.531		2.681	.008		
H1	Information providing	.372	.355	6.903	.000	1.533	accept
H2	Interactivity	.140	.150	3.043	.003	1.402	accept
Н3	Benefit	.356	.341	6.859	.000	1.432	accept
$R^2 = .485, A_0$	djusted R^2 =.480, F=93.457(₁	o = <.001), D	urbin-Watsoi	n=2.129, Dep	endent variabl	e : Purchase	Intension
	(Constant)	0.521		2.845	.005		
H4	Information providing	.300	.293	6.011	.000	1.533	accept
H5	Interactivity	.168	.184	3.945	.000	1.402	accept
Н6	Benefit	.426	.418	8.873	.000	1.432	accept
$R^2 = .538$, A	djusted R ² =.533, F=115.727	(p = <.001), 1	Durbin-Watso	on=2.130, De	pendent varial	ole: Brand A	Attitude
	(Constant)	1.044		6.312	.000		
H7	Brand Attitude	.716	.699	16.920	.000		accept

 R^2 =.488, Adjusted R^2 =.487, F=286.285(p = <.001), Durbin-Watson=2.067, Dependent variable : Purchase Intension

3.1.6 Mediated Effect Analysis

In order to analyze the mediating effect of brand attitude on the relationship between SNS characteristics and purchase intention, multiple regression analysis was performed using Baron & Kenny's three-step approach. First, in step 3, the information providing, and benefit were analyzed to partially mediate brand attitude in the relationship of SNS characteristics to purchase intention. Hypotheses H8 and H10 for the mediated effect analysis were adopted. [Table 5] summarizes the analysis results of the mediator effect of brand attitude on purchase intention by consultant's SNS characteristics. Hypothesis H7 was adopted. The explanatory power (R^2) on the influence of brand attitude on purchase intention is .563 (56.3%). Comparing Step 1 and Step 3 shows the change in the standardization coefficient (β) for the mediating effect of brand attitude in the relationship of SNS characteristics to purchase intention. Due to the mediating effects of brand attitude, the standardization coefficient (β) has information providing (.355, p<.001 \rightarrow .235, p<.001), benefit (.341, p<.001 \rightarrow .169, p<.01) was reduced.

Table 5. Summary of mediating effects of branding attitude in SNS characteristics and purchase intension

	St	ep1	St	Step2		ep3			
model	Dependent variable: Purchase Intension		Dependent variable: Brand Attitude		Dependent variable: Purchase Intension		-	Results	
	В	β	В	β	В	β		mediating effect	
(Constant)	.531		0.521		.311				
Information providing	.372	.355***	.300	.293***	.246	.235***	accept	partial mediating	
Interactivity	.140	.150**	.168	.184***	.069	.074	accept	complete mediating	
Benefit	.356	.341***	.426	.418***	.176	.169**	accept	partial mediating	
Brand Attitude					.423	.412***	accept	mediating	
R ² (Adjusted R ²)	.485(.480)		.538(.533)		.563(.557)				
F-value	93.457***		115.727***		95.7	781***			
Durbin-Watson	2.	129	2.130		2.134				
p-value: *p< .05, **p< .01, ***p< .001									

4. Conclusion

This study derives information providing, interactivity, and benefit as major factors among SNS characteristics of mobile carriers. In addition, this study examined the relationship between the carrier's SNS characteristics on brand attitude and purchase intention. As a result, among SNS characteristics of mobile carriers, information providing had the most influence on purchase intention. Various information and accurate and prompt information had a positive effect on purchase intention. Mobile operators should try to deliver a variety of information quickly and accurately through SNS. In addition, benefit had the most influence on brand attitude. The SNS feature, which saves time due to the convenience of search, discounted price, and economic benefits through events, has a positive effect on brand attitude. Like other previous studies, it was verified that brand attitude plays a role in purchasing intention. Mobile carriers can improve their brand and increase sales through SNS. This study has great significance in that it can contribute to the effect of SNS marketing management using SNS characteristics of mobile carriers. In addition, it is of great academic significance in that it provides useful basic data to mobile carriers doing SNS marketing activities to help them establish SNS marketing strategies.

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