

The Impact of Online Information Source on Consumer Satisfaction in the Internet Shopping Mall

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I . Introduction

In this fast-changing digital age, it is difficult to provide satisfactory experience to consumers like shooting a moving target. Especially, it is more so in the online environment where consumers can leave the place quickly and easily with just one click in the mouse. Internet shopping malls are

trying hard to build a long-term reciprocal relation with consumers. In this respect, a number of elements such as products and services, technical characteristics, and related qualities have been suggested as those that influence on the satisfaction of online consumers. This study intends to examine the information search activities, especially about the information

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source, in the Internet shopping malls. The web environment creates various information sources and the online consumer searches information for the reasonable decision-making by cutting the time and effort while reducing the risk recognized in the online purchase situation. According to the result of many previous studies, researchers have told that the internet environment plays the role of a useful information source by cutting the cost of acquiring information(Bakos 1997, Bar-Ilan 2001). However under the overload of a lot of information, the consumers rather select the information needed to themselves while holding the awareness tendency of information source(Schuman and Johnson 1976). Therefore in relation to the decision-making of consumers, it is required to have the qualitative approach to understand the consumer's recognition for online information source which information source makes a meaningful impact and which influence it makes on the actual product purchase and satisfaction.

The information source is the fount that consumers can acquire the information needed in making a purchase decision and the usage of those differs each consumers. Walters(1974) has suggested that the deterministic factors of information source selection include the product type, desired form of information, life of product, confidence on the information source, usefulness of information, and past experience. The reason that consumers search information according to the type of information source is because they

have the awareness tendency for the information benefits provided by the information sources, which is the belief level(Schuman and Johnson 1976). As for the information sources, they are influenced by 'expertise' how well they know about them, 'trustworthiness' how truthfully they are delivered, and how much appealing they are(Craig and McCann 1978). However, the important thing is that the recognition of information source is the evaluation that consumer receiving message has with speakers rather than the speakers delivering information generate. Blogdett and Hill(1991) have suggested that it is important to know which information sources the consumers have depended upon for the final decision making, thereby needing to have the consumer information exploration in the qualitative perspective. In these perspectives, this study intends to find what the information sources meaningful to consumers are and to know whether there is a difference between information sources in the product satisfaction. First, through the related studies and prior surveys, the information sources were comprised of the internal information source like purchase experience as the online information source, of the external information source like the online transmission from consumer rating, and of the information provided by the sellers about the product or service. Also, this study intends to examine the relation between satisfactions by understanding the recognition of consumers for each information sources.

II . Literature Review

2.1 Online Information Source

Today's online-consumers face richer information environments than ever before (Lurie 2004). Recent studies online have empirically examined the impact of the amount of information consumers receive(Sicilia and Ruiz 2010). Some studies conclude that more information is more persuasive in terms of attitudes and intentions, while others(related to the information overload paradigm) state that there are dysfunctional consequences(more confusion, poorer decision quality, and more time required to reach a decision) derived from providing consumers with a great amount of information(Sicilia and Ruiz 2010). Moreover traditionally, the consumer information exploration becomes the starting point of understanding consumer behavior as one area of consistent attention in the field of consumer behavior study, which attracts a number of related studies(Beatty and Smith 1987). Due to the development of Internet, the consumers that could be able to collect more information without experiencing the geographic/time limitations are using various information sources.

Generally, the information exploration activities of consumers can be largely divided into the internal information exploration that uses information by recollecting the information in the long-term memory and the external information

exploration that uses the information acquired by using various external information sources(Craig and McCann 1978). And according to the control status by company, the information source can be further classified into the information source under company control and the information source beyond company control; on the other hand according to the exploration method, it can be divided into the human information source and non-human information source(Craig and McCann 1978). Also, Walters(1974) has divided the type of information source into the information source of individual experience, information source of firm and information source of reference group; Aaker(2000) has divided the information source according to the cultural background. Likewise, the classification of information source is because the consumer attitude and impact level about the message provided by the information source are different. In other words, the message accommodation or interpretation of consumers can be different by whom the information was delivered though the message is identical. When a consumer believes one information source and is depending on that, the internalization of information that takes the information provided by a specific information source as one's own opinion may occur and an attitude change occurs due to the homogeneity with the information source(Craig and McCann 1978).

2.2 Information Satisfaction

In the perspective of Internet media, a vast amount of information is generated. However, the vast amount of information does not tell that they provide sufficient information to consumers. Generally, the satisfaction level as the sum of emotion or attitude for several factors influencing on the situation under certain circumstances can be known as the evaluation on how much the selected alternative is matched with the beliefs of consumers(Engel et al. 1990). In other words, consumers make the purchase decision through the information exploration activities and evaluate how much the product is matched with the given information upon purchase. Looking at the previous studies in relation to the information satisfaction of Internet shopping mall, researchers have asserted that they can measure the information quality in accordance with the accuracy, timeliness and reliability of information by setting the information as one estimation value function created by Internet shopping mall system. And, they mentioned that the information quality makes a significant impact on the user satisfaction(DeLone and McLean 1992). Bailey and Pearson(1983) have suggested that the information quality perceived by consumers on the Internet environment is an important factor in predicting the decision-making behavior of consumers. When consumers perceive that the information satisfies their appetite and requirements, they could

evaluate the value of information, product and service basing on the decision-making criteria of purchase and they could be measured under the physical environment related to the information content, information type and relevant information. As you could see from the above, quality and satisfaction could be exchangeable for the sake of easy measurement in the perspective of regarding the Internet shopping mall as an information system. However, it may be necessary to differentiate the meaning of information quality from that of satisfaction strictly. For consumers, information is necessary in making an efficient purchase decision by reducing the uncertainties in every step of decision-making process. Consumer by selecting and interpreting necessary information from a numerous number of information items goes through the information handling process that develops and changes new belief and attitude(Engel et al. 1990). Since such information handling process as a perception process of consumers occurs in connection with the existing schema, the action that measures and understands quality by the nature of information can cause an error. In a study of satisfaction and quality, Oliver(1993) has denoted that quality is the evaluation about the responses of consumers for each level and satisfaction as more inclusive and broader meaning that has considered several situations and emotions in addition to such quality.

Spreng et al.(1996) have clarified that

consumers have certain emotion for the sellers or advertisement information used in product selection, and the satisfaction about the properties of the products themselves and the judgment about the information used in product selection makes a significant impact on overall satisfaction. There are several subordinate levels in satisfaction. Under today's competitive marketing environment, a large weight is loaded onto the advertisement or persuasion activities in order to attract consumers and to keep up the competitive advantages. And, consumers are creating their attitude on such marketing communication and this is regarded as the information satisfaction (Wright 1973, Davidow and Uttal 1989).

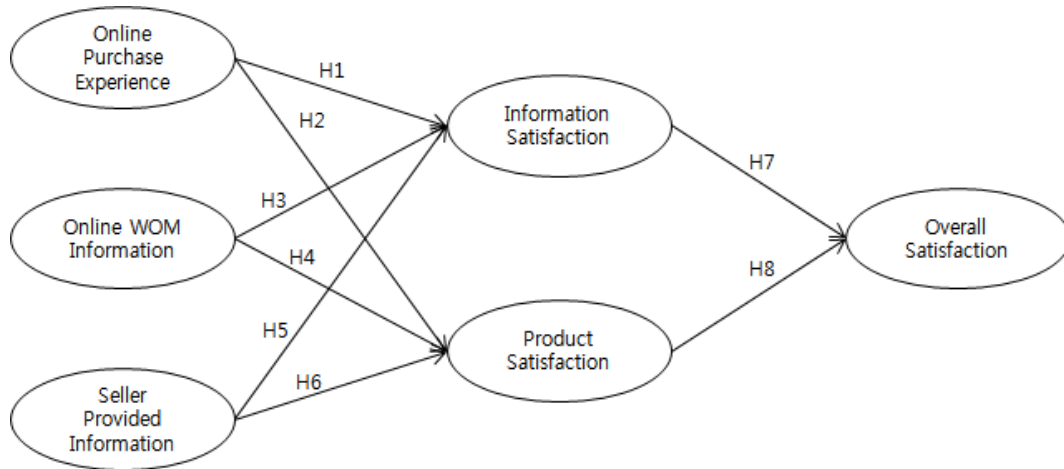
III . Research Model

3.1 Research model and hypotheses

In this study, we attempted to explain the behaviour of online consumers focusing on the sources of information and satisfaction with the information provided as the potential explaining variables. In the shopping environment of online space which is characterized with interactions that are none face-to-face in nature, consumers will build their attitude towards specific sources of information and shopping malls based on the criteria of their own. As is evident in the conventional consumer decision making processes, consumers shape the

expectations on the products through the process of information search and form satisfaction and/or dissatisfaction for products by comparison of the expectations with the post purchase performances of the products. Especially, considering the characteristics of the online shopping environment, we assume that the impact of the source of information will be more important than other factors that affect the attitude formation of consumers. From this perspective, we based our research on the consumer satisfaction theory and Oliver's(1980) expectancy disconfirmation theory where there are not only post experience judgment variables but also the prior expectation variables. We performed preliminary survey on the sources of information that people who have experiences of using the Internet shopping malls are using in purchase decision making in advance. We derive online purchase experience, online WOM information, and seller provided information as the main sources of information in information search from the results of preliminary survey. By examining the recognition and evaluation of consumers for the information sources in the information exploration activities of Internet shopping mall, we proposed the model as shown on Fig. 1 in order to understand the consumer's overall satisfaction in relation to the information.

Consumers search information as one of the means to reduce perceived risks the context of purchasing. Although the classification of



<Fig. 1> Research Model

sources of information differ depending on the researchers, in general, the it is based on whether the firm is in control of the information or the sources can be divided into internal information sources and external information sources. Internal information source means the remind of one's own experiences and is obtained mainly through calling back one's own past experiences or information that was gathered in the past from among one's memory. But, in general, because it is difficult to obtain sufficient information by depending only on search of internal information, people tend to pursue additional information from external sources(Beatty and Smith 1987). And in the online space where there are plenty of information that can be called as information overload, consumers make selective exposure to information because of the limit of their cognitive capacity. Likewise, the information source used by consumers makes an important impact on purchasing and evaluating a product. Also, for the

advertisements or sellers used by consumers for product selection, the consumers tend to have a feeling(Spreng et al. 1996) and this kind of response by consumers can be regarded as product satisfaction(Wright 1973, Davidow and Uttal 1989). Based on this observation, we search for the major information sources in the online space in terms of the amount of use and importance and derived online purchase experience, online WOM information, and seller provided information as major sources.

The effect that online purchase experiences have on the purchase and/or post purchase evaluation can be explained by the theory of learning through experiences. The information source of individual experience as the result of past experience can be used as an important information source for the present selection and the direct experience like purchase can explain well about future behavior(Fazio and Zanna, 1981). Based on the previous studies above, the

following hypothesis can be established.

Hypotheses 1, Online purchase experience is positively associated with information satisfaction.

Hypotheses 2, Online purchase experience is positively associated with product satisfaction.

The online WOM communication such as the post-opinion of use by the consumers that have purchased the product earlier acts as a reliable information source that plays the role of guiding consumers' purchase(Chatterjee 2001). Also, consumers can predict the satisfaction level of products and services through the information provided by sellers on the Internet shopping mall, such as advertisement, product description and recommendation. Based on the previous studies above, the following hypothesis can be established.

Hypotheses 3, Online WOM information is positively associated with information satisfaction.

Hypotheses 4, Online WOM information is positively associated with product satisfaction.

The market-driven information source as the one that the communication with the consumers is under the direct control of marketing includes the product, price, packing, advertisement and promotion. The WOM communication as the one that is not under the direct control of marketing can be said as the consumer-driven

information source(Craig and McCann 1978).

The effect that online purchase experiences have on the purchase and/or post purchase evaluation can be explained by the theory of learning through experiences. In the online space, consumers will form their expectations on the goods or services based on the information provided through seller provided advertisement or product explanation, or recommendations of peer consumers for the purchase of invisible product and, form same attitudes such as satisfaction and/or dissatisfaction not only towards goods and services themselves but also towards the information they used in decision making based on their post purchase evaluation of the products. Based on the previous studies above, the following hypothesis can be established.

Hypotheses 5, Seller provided information is positively associated with information satisfaction.

Hypotheses 6, Seller provided information is positively associated with product satisfaction.

When a consumer is satisfied with a product or service, he/she may give a positive rating on the item, and then the consumer satisfaction would be raised(Mano and Oliver 1993). Spreng et al.(1996), which have modified the consumer satisfaction model, have demonstrated that the satisfaction/dissatisfaction is formed for the product property as well as the information used by consumers, consequently influencing on

consumer satisfaction. Based on this, the following hypothesis can be established.

Hypotheses 7, Information satisfaction is positively associated with overall satisfaction of the consumer.

Hypotheses 8, Product satisfaction is positively associated with overall satisfaction of the consumer.

3.2 Operationalization of constructs

The online purchase experience as the related knowledge saved in the memory through past experience acts as an important information source. According to social learning theory and consumer satisfaction theory, direct experience is known to be strongly recognized in one's own memory(Solomon 2002). In other words, purchase experience as the overall evaluation result that a numerous number of information clues are remained within our memory through the cognitive or emotional processing could be regarded as the one that forms the attitude for a service or product. Accordingly, this study has defined the online purchase experience as "To reference one's own online purchase experience in the past."

The online WOM information refers to the consumers' behavior of exchanging information on the Internet in relation to the product, service or consumption based on their experience or knowledge(Chatterjee 2001). This can be said as transferring the negative or positive message to

other consumers in relation to the product and service experienced by one through the bulletin board of Internet or post-opinion of use. This paper has defined the online WOM communication information as the "To reference the experience of other consumers in relation to a purchase like the post-opinion of use and/or product review within the internet shopping mall."

The seller provided information, which can be expressed as the "marketer-controlled sources," is the marketing communication performed by the seller to persuade consumers(Spreng et al. 1996). This study has defined as the "To reference the controllable information of the seller that is provided for sales promotions like the description, advertisement or recommendation of products within the internet shopping mall." The information source was measured by seven-point Likert scales in relation to the 4 questions basing on the items used by the previous studies related to the consumer's behavior of information exploration(Beatty and Smith 1987) and study of Spreng et al.(1996).

The study of Spreng et al.(1996) that has modified the consumer satisfaction model has defined the information satisfaction as the "subjective satisfaction judgment of the information used in choosing a product." Based on this, this study has defined the information satisfaction as the "subjective judgment of consumer for the information used for purchasing such as product selection and judgment."

Looking at the decision-making process of consumers, the expectation about a product is created upon exploration of the information, and the satisfaction/dissatisfaction is created by comparing the expectation with the purchase result(Oliver 1980). This study has defined the product satisfaction as the “evaluation through the comparison of purchase result with the expectation created about a product upon exploration of the information.”

While the concept of consumer satisfaction can be defined variously according to the criteria and viewpoints of scholars, this study has defined as the “overall judgment of consumers about the

products of purchase and Internet shopping malls after a specific transaction related to a purchase on the Internet shopping mall” while basing on the studies of Day(1984) and Oliver(1981) that have stated as the judgment on the products & service shops in relation to a specific transaction and subject of selling product, namely the judgment about the shops. To measure the information satisfaction, product satisfaction and consumer satisfaction, this study has modified the measurement items such as “positive, satisfactory, wise and fine”(Oliver 1980) appropriately for this study and has conducted the measurement on the scale of 7 points for the respective 4 questions.

<Table 1> Operationalization of constructs

Construct	Operational Definition	Source
Online Purchase Experience	To reference one’s own online purchase experience in the past.	Solomon (2002)
Online WOM Information	To reference the experience of other consumers in relation to a purchase like the post-opinion of use and/or product review within the internet shopping mall.	Chatterjee (2001)
Seller Provided Information	To reference the controllable information of the seller that is provided for sales promotions like the description, advertisement or recommendation of products within the internet shopping mall.	Spreng et al.(1996)
Information Satisfaction	The subjective judgment of a consumer for the information used for purchasing such as product selection and judgment.	Wright (1973)
Product Satisfaction	The evaluation through the comparison of purchase result with the expectation created about a product upon exploration of the information.	Oliver(1980) Day(1984)
Overall Satisfaction	The overall judgment of a consumer about the product of purchase and Internet shopping mall after a specific transaction related to a purchase on the Internet shopping mall.	Oliver(1993) Kwon, et. al.(2006) Kim(2008)

Operational definitions are shown in Table 1.

IV. Analysis Result

4.1 Sample description

The information sources that consumers make use of in relation to the purchase decision making are various depending on the personal characteristics, knowledge on the products, and types of products. To find out common major online sources of information among these sources, people in their twenties were surveyed. Through literature review and group interviews, we examined many sources of information that people can refer to in relation to the purchase on the on-line space. In order to find the online information sources before conducting this survey, this study has organized the variables of this study upon drawing the purchase experience, online WOM information and seller provided information after conducting a survey of 100

college students. Total 405 responses were collected in KOREA, Republic of. All respondents have the experience of Internet shopping and 397 responses were used in statistical analyses excepting 8 invalid responses. Table 2 shows the characteristics of respondents. Of the respondents, 47.9% were male and 52.1% were female. In terms of age, 78.3% were in 20's and 15.9% were in 30's years old. Also, respondents averagely visited to Internet shopping mall 14.32 times per month and averagely purchases 6.26 times during the past 6 months through Internet shopping mall. The collected data were tested using SPSS 17.0 and LISREL 8.54 for structural equation modeling(SEM).

4.2 Assessment of Instrument Validity

Each variable was measured using multiple items. We conducted an exploratory factor analysis to evaluate their uni-dimensionality. In order to assess the construct validity of the

<Table 2> Descriptive statistics of respondents characteristics

Features		Percentage(%)	Features	Mean	S.D.
Age	10's	3.0	Avg. hours of Internet use per day	3.23	4.288
	20's	78.3			
	30's	15.9			
	40's	2.8	Avg. number of visits to Internet Shopping Mall per month	14.32	52.10
	Total	100			
Gender	Male	47.9	Avg. number of visits to Internet Shopping Mall per month	6.26	7.56
	Female	52.1			
	Total	100.0			

instruments, a principal-component factor analysis with Varimax rotation was conducted. Furthermore, the majority of the factor loadings for the items appeared to be above 0.5 (see Table 3). Thus, the items corresponded well to each singular factor, evidencing a high degree of convergent validity. As the factor loadings for a variable (or factor) were higher than the factor loadings for the other variables, the instrument's discriminant validity was shown to be clear (Hair

et al, 1998). As is shown in Table 3, six factors were extracted as anticipated, which explained 83.651% of the total variance, with eigen values in excess of 1.

When dependent and independent variables data are collected from the same informant, common method bias may be a potential problem. We utilize the Harman's one-factor test (Podsakoff & Organ, 1986) to examine the extent of the common method bias that may

<Table 3> Exploratory factor analysis (EFA)

		Component						Communality
		1	2	3	4	5	6	
Online Purchase Experience	ope1	.871	.031	.094	.098	.129	.037	.795
	ope2	.873	.052	.073	.088	.123	.086	.801
	ope3	.911	.081	.053	.093	.132	.100	.875
	ope4	.913	.074	.081	.105	.104	.079	.874
Online WOM Information	ewom1	.144	.100	.010	.103	.933	.054	.915
	ewom2	.156	.109	.052	.107	.926	.074	.913
	ewom4	.163	.104	.081	.093	.903	.063	.872
Seller Provided Information	spi2	.039	.090	-.034	.039	.064	.828	.702
	spi3	.098	.063	.029	.049	.031	.924	.871
	spi4	.123	.051	.084	.007	.075	.896	.833
Information Satisfaction	is1	.100	.841	.198	.195	.113	.089	.815
	is2	.062	.873	.229	.215	.091	.040	.875
	is3	.085	.850	.230	.225	.089	.075	.847
	is5	.014	.794	.246	.212	.089	.077	.749
Product Satisfaction	pps1	.086	.239	.822	.293	.053	.003	.828
	pps2	.080	.191	.814	.332	-.011	.032	.816
	pps3	.110	.258	.835	.265	.055	.062	.854
	pps4	.085	.301	.830	.262	.090	.006	.863
Overall Satisfaction	os1	.115	.283	.289	.799	.104	.021	.827
	os2	.119	.244	.292	.822	.133	.049	.854
	os3	.114	.203	.337	.805	.086	.024	.823
	os4	.129	.216	.268	.808	.093	.051	.799
Eigen Value (% of Variance Explained)		3.393 (15.424)	3.364 (15.293)	3.324 (15.111)	3.201 (14.549)	2.709 (12.315)	2.411 (10.960)	Cumulative % 83.651

Notes: ewom3, spi1, is4 deletion, *: p < .05, **: p < .01

exist in this study. The logic of this approach is that if the common method bias accounts for the relationship between two or more variables, a factor analysis should yield a single method factor when all the constructs are analyzed together. The result of the principal components factor analysis reveals that there are six factors with eigen-values greater than 1.0 that accounts for 50% of the total variance. Because several factors were identified, the first factor did not account for the majority of the variance(15.424), and since there is no general factor in the unrotated factor structure, common

method variance does not seem to be a problem.

4.3 Assessment of measurement model

For models with good fit, chi-square normalized by degrees of freedom($X^2/d.f.$) should be less than 3(Bentler 1989), GFI, AGFI, NFI, and CFI should all exceed 0.9, and RMSEA should be less than 0.05. For the current CFA model, $X^2/d.f.$ is 1.74($X^2=339.05$; $d.f.=194$), GFI is 0.93, AGFI is 0.91, NFI is 0.98, CFI is 0.99, and SRMSR is 0.034. An adequate model fit was therefore indicated.

<Table 4> Confirmatory factor analysis(CFA)

Construct	Item	Non-Standardized estimate	Standardized estimate	Measurement error	t-value	SMC	Composite reliability	AVE	Cronbach's α
Online Purchase Experience	ope1	0.95	0.82	0.5	24.00	0.67	0.91	0.71	0.93
	ope2	0.94	0.83	0.47	24.61	0.69			
	ope3	1.02	0.94	0.16	34.42	0.88			
	ope4	1.00	0.94	0.16	-	0.88			
Online WOM Information	ewom1	1.03	0.94	0.13	34.82	0.88	0.94	0.84	0.94
	ewom2	1.00	0.94	0.12	-	0.89			
	ewom4	0.94	0.88	0.23	29.30	0.78			
Seller Provided Information	spi2	0.78	0.70	0.9	16.05	0.48	0.81	0.59	0.87
	spi3	1.00	0.95	0.17	-	0.89			
	spi4	0.96	0.87	0.41	21.41	0.76			
Information Satisfaction	is1	0.92	0.86	0.27	26.29	0.75	0.92	0.70	0.92
	is2	1.00	0.93	0.16	-	0.86			
	is3	0.95	0.90	0.21	28.74	0.8			
	is5	0.83	0.80	0.38	22.16	0.64			
Product Satisfaction	ps1	0.96	0.87	0.26	25.95	0.76	0.93	0.72	0.93
	ps2	0.91	0.85	0.27	24.79	0.73			
	ps3	0.97	0.90	0.19	28.06	0.81			
	ps4	1.00	0.91	0.19	-	0.83			
Overall Satisfaction	os1	0.99	0.89	0.24	26.86	0.79	0.92	0.69	0.92
	os2	1.00	0.91	0.19	-	0.83			
	os3	0.97	0.86	0.3	25.21	0.75			
	os4	0.91	0.84	0.33	23.58	0.7			

Notes: ewom3, spi1, is4 deletion, *: $p < .05$, **: $p < .01$

Next, convergent validity was evaluated for the four measurement scales using three criteria suggested by Fornell and Larcker(1981). All indicator factor loadings(λ) should be significant and exceed 0.7, construct reliabilities should exceed 0.8, and average variance extracted(AVE) by each construct should exceed the variance due to measurement error for that construct(i.e. AVE should exceed 0.50). All λ -values in the CFA model exceeded 0.7 and were significant at $P = 0.01$ (see t-value in Table 4). The Composite reliabilities ranged between 0.81 and 0.94. AVE ranged from 0.77 to 0.91(see Table 4), which is greater than the variance due to measurement error. Hence, all three conditions for convergent validity were met.

Finally, Fornell and Larcker(1981) have recommended a stronger test of discriminate validity: the AVE for each construct should exceed the squared correlation between that and any other construct. The factor correlation

matrix indicated that the largest squared correlation between any pair of constructs was 0.665(product satisfaction and overall satisfaction), while the smallest AVE was 0.77. Hence, the test of discriminate validity was also met. Table 4 shows the result of confirmatory factor analysis and also correlation matrix used for the analysis is shown in Table 5.

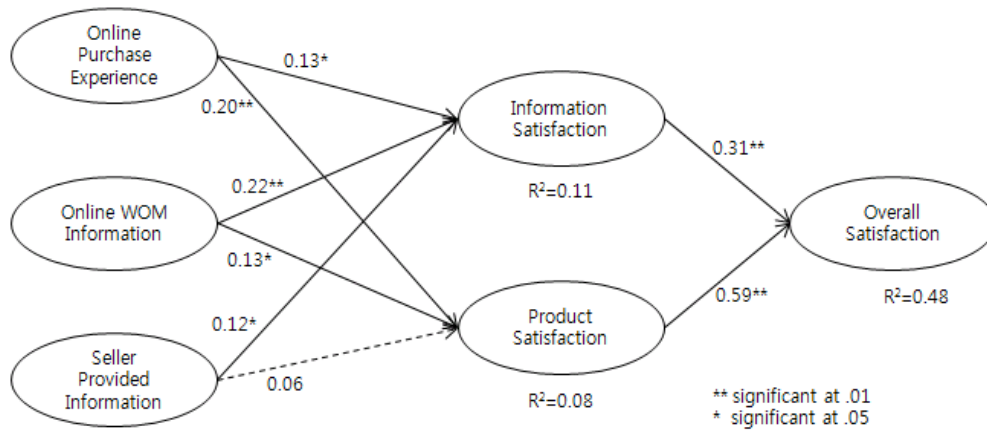
Potential multicollinearity among the antecedents was evaluated prior to the multiple regression analysis, as some of the variables were correlated significantly with others. Although several variables exhibited significant correlations, their VIF is 1.466 and tolerance values is 0.682, thus demonstrating that multicollinearity is not a likely threat to the parameter estimates(Hair et al., 1998).

4.4 Assessment of model fit and evaluation of hypotheses

The goodness-of-fit of the structural model

<Table 5> Correlation and Discriminant validity

	\sqrt{AVE}	(A)	(B)	(C)	(D)	(E)	(F)
(A) Online Purchase Information	0.841	1					
(B) Online WOM Information	0.917	0.22	1				
(C) Seller Provided Information	0.770	0.196	0.127	1			
(D) Information Satisfaction	0.838	0.196	0.176	0.176	1		
(E) Product Satisfaction	0.846	0.23	0.137	0.098	0.564	1	
(F) Overall Satisfaction	0.831	0.284	0.2	0.12	0.556	0.665	1



<Fig. 2> Results of structural modeling analysis

was comparable to the previous CFA model. In this structural model, the relative chi-square($\chi^2/d.f.$) was 2.44($\chi^2=484.09$; $d.f.=198$), GFI was 0.91, AGFI was 0.88, NFI was 0.97, CFI was 0.98, and RMSEA was 0.049. These indexes indicated an acceptable goodness-of-fit between the hypothesized model and the observed data. Fig. 2 shows the results of our hypotheses testing.

First looking at the hypothesis results of this study, the hypothesis 1 that the online purchase experience would have a positive(+) relation on information satisfaction has yielded a statistically significant result with the t-value of 2.31($p<0.05$) and the hypothesis 2 that the online purchase experience would hold a positive(+) relation on product satisfaction was also supported as the result was found to be statistically significant with the t-value of 3.55($p<0.01$). These results can be interpreted that the purchase experience of shopping mall user is working as the internal information source and is influencing on the

information satisfaction and product satisfaction of shopping mall.

Second, the hypothesis 3 that the online WOM information would have a positive(+) relation on information satisfaction and hypothesis 4 that would hold a positive(+) relation on product satisfaction were supported as the results were found to be statistically significant with the respective t-values of 4.01($p<0.01$) and 2.32($p<0.05$). We could see from this analysis result that consumers are using it as an aid in purchase decision as they indirectly learn and experience the consumption experience of other consumers.

Third, the hypothesis 5 that the seller provided information would have a positive(+) relation on information satisfaction has shown a statistically significant result with the t-value of 2.19($p<0.05$) but the hypothesis 6 that the seller provided information would hold a positive(+) relation on product satisfaction was rejected with the t-value of 1.04($p<0.05$). This can be interpreted that the

sellers can draw satisfaction on the information itself by providing the visual information using various multimedia but the information does not seem to explain the product accurately. Lastly, the hypothesis 7 that the information satisfaction would show a positive(+) relation on overall satisfaction and the hypothesis 8 that the product satisfaction would hold a positive(+) relation on overall satisfaction have appeared to be statistically significant with the respective t-values of 7.23($p < 0.01$) and 13.02($p < 0.01$). This result tells that the information satisfaction as well as product satisfaction is working quite importantly in order to fulfill the consumer's overall satisfaction on the Internet shopping malls.

V. Discussion and Implication

After analyzing the opinions of consumers about the online information sources, we could obtain several characteristics as follows. First, among the purchase experiences, word-of-mouth information and seller-provided information are the major online information sources that have appeared to have the largest impact on information satisfaction. Due to the online environment characteristics that cannot be touched and experienced, this can be viewed as learning the experience of other consumers indirectly. Related to the prior researches on consumer decision making have established that

online reviews are considered more credible and trustworthy by consumers than traditional sources of information(Bickart and Schindler 2001).

This effect can be understood that the belief by 'homogeneity' as the same a consumer is working as a powerful convincement. In other words, consumers are accommodating the message easily because they believe that they are of similar purposes and values by putting those that are feeling similar to themselves by the self-categorization theory into the meaning category of information source. On the other hand, consumers are satisfied with the information itself provided by sellers while using the multimedia technology along with the development of technology but they either do not trust the seller provided information by regarding it as a commercial message or are not satisfied with the functional compatibility of products. Next, online consumers indirectly experience and purchase products and services through the information exploration activities on the Internet shopping mall where no physical shops or sellers exist. Therefore in order to draw the consumer satisfaction on the Internet shopping malls, this result suggests that the information satisfaction shall come first.

The results of this research provide implications in terms of theoretical perspectives as the followings. First one is the fact that we derive online purchase experience, online WOM information, and seller provided information as

the most commonly used sources of information in the online space through literature review and execution of preliminary survey in the group interviews. Second one is that, while prior researches on online information sources have focused on only one source of information, we make it possible to investigate the information use behaviors of consumers more practically and more comprehensively by looking at multiple sources of information combined with each other. Third, we have proven the importance of

information in the Web environment by confirming mediated effects through the suggestion of a new construct of 'information satisfaction'. It is expected that these results will enable a more meaningful prediction of online consumer behaviors.

From practical points of view, this research provides guidelines for design, management, and use of information. Although many Internet shopping malls try to gain competitive advantages through approaches and expansions

Appendix A. Survey questionnaires

Constructs	Measures
Online Purchase Experience	<p><i>“for purchasing a product in this Internet shopping mall”</i> I remind the experience of Internet purchase before. I reference the experience of Internet purchase in the last. I look back the previous experience of Internet purchase. I think the past experience of Internet purchase.</p>
Online WOM Information	<p><i>“for purchasing a product in this Internet shopping mall”</i> I reference a consumer’s online comment. I reference the evaluation of other consumers about a product. I reference the opinion of other consumers, using product reviews.</p>
Seller Provided Information	<p><i>“for purchasing a product in this Internet shopping mall”</i> I reference the information such as recommendation goods. I search the popular goods provided by seller. I reference the information such as the best seller.</p>
Information Satisfaction	<p><i>“... this Internet shopping mall”</i> I am positive about the information used to judge a product of. I am satisfied with the information used to select a product of. I am pleased with the information used for a product selection in. I feel good about the information used for a product selection in.</p>
Product Satisfaction	<p>I am satisfied with the purchased product of this Internet shopping mall. I am kind to the product provided by this Internet shopping mall. I am positive about the product of this Internet shopping mall. I feel good about the purchased product of this Internet shopping mall.</p>
Overall Satisfaction	<p>Overall, I am satisfied with this Internet shopping mall. I am kind to this Internet shopping mall. I think it is wise to purchase a product in this Internet shopping mall. I am positive about this Internet shopping mall.</p>

in terms of quality such as system performance and various information provision functionalities, the importance of approach from the customers' point of view should be appreciated. Besides, it can be said that it is more effective to provide information based on the understanding of the attributes that consumers are make use of more frequently and more importantly than just to provide as much information as possible. This is because information itself can be a product itself and unnecessary information or information that does not meet the consumers' needs might rather impose confusion in the decision making process of consumers in the online environment.

This study has the following limitations. First in order to understand the recognition of information source, this study has depended on the past memories of consumers. Hence, more scientific researches shall be followed in the future studies by using the field survey method and longitudinal research method. Also, this study was conducted while targeting people in the 20's but in the future studies, it would be necessary to have additional review on the related variables while overcoming the limitations above.

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전남대학교에서 경영학 석사와 박사(E-commerce 전공)를 취득하고 현재 전남대학교 경영학부에서 시간강사로 재직 중이다. 주요관심분야는 E-commerce, 온라인소비자행동, 인터넷 마케팅 등이다.

장희영(Jang, Heeyoung)



전남대학교에서 경영학 박사(경영정보학 전공)를 취득하고 현재 전남대학교 경영연구소 선임연구원으로 재직 중이다. 주요관심분야는 E-commerce, 지식경영, CoP, 소셜네트워크 등이다.

노희옥(Rho, Hee Ock)



현재 순천대학교 중소기업경영연구소 연구교수로 재직 중이며, 전남대학교에서 경영학 박사를 취득하였다. 주요관심분야는 E-business, 기업정보시스템 활용, BPR, 모바일 비즈니스 등이다.

<초록>

온라인 정보원천이 인터넷 쇼핑몰 소비자만족에 미치는 영향

박경자 · 장희영 · 노희옥

웹이라는 환경은 다양한 정보원천을 생성해냈고, 온라인 소비자는 시간과 노력의 비용을 줄여 보다 합리적인 의사결정을 하기 위하여 웹 정보탐색을 한다. 특히 인터넷 환경은 정보를 획득하는 비용을 낮춤으로써 유용한 정보원천의 역할을 수행하고 있다(Bakos, 1997; Bar-Ilan, 2001). 그러나 너무 많은 정보는 오히려 소비자들의 의사결정을 방해할 수 있는데, 이때 소비자들은 정보원천에 대한 인지경향, 즉 신념수준을 가지고 자신에게 필요한 정보를 취사선택하게 된다(Schuman and Johnson, 1976). 이러한 관점에서 온라인상에서의 구매의사결정과 관련해서 주요하게 참조되는 정보원천을 파악하는 것은 의미있는 일이라 할 수 있다. 이에 본 연구에서는 사전조사를 통해 온라인 주요 정보원천으로 온라인 구매경험, 온라인 구전정보, 판매자 정보를 도출하였다. 그리고 이러한 정보원천이 제품만족, 정보만족에 미치는 영향관계를 알아보고, 이어서 정보만족과 제품만족이 인터넷 쇼핑몰에 대한 소비자의 전반적인 만족에 미치는 영향을 살펴보았다. 분석결과, 온라인 정보원천의 모든 변수들이 정보만족에 유의한 영향관계를 갖는 것으로 나타났으며, 제품만족과의 관계에서는 판매자 제공정보가 유의하지 않게 나타났다. 또한 정보만족과 제품만족 모두 소비자의 전반적인 만족에 유의한 영향을 미치는 것으로 나타났다. 이와 같은 결과는 온라인상에서의 정보의 중요성을 입증하는 것으로, 온라인 소비자의 정보원천에 대한 이용과 평가를 이해하는데 새로운 시각을 제공해주고, 정보원천에 대한 관리와 활용에 관한 실무적 시사점을 제시해 줄 것으로 기대된다.

Key Words: Internet shopping mall, Online Information Source, Information Satisfaction, Consumer Satisfaction, self-categorization theory

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