

## The Effects of Internet Media Ability on Interactivity and Sports Site Loyalty

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**Abstract:** The purpose of the present study is to clarify the effect of internet media ability on interactivity and sports site loyalty. The research subjects included a total of 300 university students in the Seoul area in 2014, comprised of 150 males and 150 females. Data analysis conducted frequency analysis, factor analysis and multiple regression analysis by using the SPSS statistics program. First, internet media ability partially affected interactivity. Second, internet media ability partially affected sports site loyalty. Third, interactivity partially affected sports site loyalty. For this study, the statistics analysis Software Package SPSS 18.0 was used.

**Key words:** Internet media ability, interactivity, loyalty, navigation quality, reactivity

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### INTRODUCTION

With the introduction of the new societal concept of information society, the media environment based on books, newspapers and television has changed to a new media environment and the consequent information gap involves the gap between the information rich and the information poor in terms of media information media receptivity in a framework of social science research. Because the inequality of communication occurring in such a phenomenon brings about a difference in ability and opportunities recognized as fundamental values in a society, it forms a severe social problem.

Amidst such a change into an information society, youths experience life and living, ideal and reality and living habits online and are familiar with interpersonal relationships on a virtual space.

The development of the internet and the concept of the users, the distinct characteristic of the internet environment is the interactive concept. The interactive concept is characteristic of medium of the new media which the meaning of the interacting 'connection' is reinforced from the mass media (Lee, 2015).

This not only means the connection of the sender and the receiver as a communicative method but promotes interactive connections between the sender and the receiver. hyperlink technologies of websites and other verified interactive mechanisms allows communication between users and user, media and user, media and media

in the web environment. The interactive characteristics of the internet not only draws attention of the users to a certain website but also have the users constantly seeking them (Yi *et al.*, 2015). The users of the websites are positively and negatively affected by these interactive characteristics. These informative society environment on the internet has developed massively and in many different forms. The users of the internet searching for information of their needs have tendency of spending more time than needed hence the massive amount of information on line or find wrong information.

It is possible through internet to find group of people of same interest to share information, retrieve or to share live information of olympic games, world cup games from the other side of the world. But, the easy access and approach to the internet media also brings outcome of personal of social problems. The users ability to filter informations on the internet is strongly recommended as many websites and informations are uploaded unscreened.

It is inevitable sports has become part of our lives directly or indirectly. This means internet, the development of the media and the use of the virtual space has made conveniency in our lives possible. We can mention the space on the website for sharing informations and buying and selling sports goods online. Or these convenient contents to be consumed, the ability to properly use nternet media is urgently needed. Therefore, existing studies have only dealt with issues on ethical

morality or game addictiveness of the internet. Therefore, the purpose of the present study is to clarify the relationship between sports site internet media ability, interactivity and sports site loyalty.

**Analysis method and survey tool:** The research subjects included a total of 300 university students in the Seoul area in 2014, comprised of 150 males and 150 females. Data analysis conducted frequency analysis, factor analysis and multiple regression analysis by using the SPSS statistics program.

In order to measure internet media ability, the survey used in the research by Sung (2014) was modified and supplemented, comprised of critical ability using ability and information providing ability. In order to measure interactivity, a survey was composed of navigation quality, reactivity, liveliness and relationship quality based on the survey used in the research by Kweon (2007). Furthermore, to measure sports site loyalty, the study composed a survey with a single factor based on the survey used in the research by Lee *et al.* (2013).

**Survey validity and reliability analysis**

**Factor analysis of critical ability of media is shown:** Factor analysis of critical ability of media is shown in Table 1. Specifically, critical ability had factor loading of 0.595-0.849 and Question 09 was eliminated due to insufficient factor loading. Using ability had factor loading of 0.483-0.808 and questions 17 and 18 were eliminated due to insufficient factor loading. Information providing ability had factor loading of 0.592-0.751 and Questions 27, 28 and 30 were eliminated due to insufficient factor loading. The cumulative percentage that explains the three factors critical ability, using ability and information providing of media was 79.692%.

**Factor analysis of interactivity is shown:** Factor analysis of interactivity is shown in Table 2. Specifically, reactivity had factor loading of 0.580-0.841. Navigation had factor loading of 0.454-0.812 and question 02 was eliminated due to insufficient factor loading. Liveliness had factor loading of 0.699-0.810 and relationship 0.631-0.785. The cumulative percentage that explains the four factors reactivity, navigation, liveliness and relationship of interactivity was 65.295%.

**Reliability analysis:** Table 3 shows reliability analysis results. First as a result of the reliability analysis of media abilities, critical ability was 0.84 using ability was 0.79 and Information providing was 0.75. Second as a result of the

Table 1: Factor analysis of media abilities

Question	Critical ability	Using ability	Information providing
Q07	0.849	0.221	0.191
Q04	0.831	0.176	0.165
Q03	0.808	0.200	0.149
Q01	0.808	0.223	0.152
Q02	0.801	0.244	0.187
Q06	0.754	0.283	0.142
Q05	0.653	0.240	0.172
Q08	0.595	0.201	0.142
Q15	0.150	0.808	0.058
Q12	0.224	0.737	0.184
Q16	0.088	0.669	0.146
Q09	0.235	0.642	0.047
Q10	0.208	0.596	0.301
Q13	0.294	0.576	0.130
Q14	0.249	0.504	0.204
Q11	0.231	0.483	0.223
Q24	0.190	0.229	0.751
Q19	0.097	0.274	0.744
Q21	0.090	0.194	0.739
Q22	0.116	0.069	0.727
Q23	0.305	0.180	0.717
Q20	0.409	0.079	0.707
Q25	0.051	0.102	0.671
Q29	0.076	-0.014	0.662
Q26	0.026	0.224	0.592
Characteristic value	2.267	2.150	1.162
Dispersion (%)	32.389	30.710	63.099
Accumulation (%)	32.389	63.099	79.692

Table 2: Factor analysis of interactivity

Question	Reactivity	Navigation	Liveliness	Relationship
Q05	0.841	0.108	0.119	0.049
Q08	0.780	0.219	0.061	0.288
Q07	0.677	0.155	0.139	0.201
Q06	0.580	0.123	0.043	0.099
Q03	0.208	0.812	0.102	0.091
Q04	0.210	0.810	0.111	0.193
Q01	0.340	0.454	0.097	0.397
Q09	0.220	-0.008	0.810	0.083
Q12	-0.098	0.242	0.799	0.174
Q11	0.189	0.064	0.793	0.073
Q10	0.172	0.087	0.699	0.144
Q15	0.171	0.168	0.166	0.785
Q14	0.205	0.151	0.118	0.766
Q13	0.123	0.121	0.107	0.631
Characteristic value	2.258	1.944	1.882	1.751
Dispersion (%)	18.815	16.199	15.686	14.594
Accumulation (%)	18.815	35.014	50.700	65.295

Table 3: Factor analysis of interactivity

Factors	Sub-factor	Cronbach's $\alpha$
Media abilities	Critical ability	0.84
	Using ability	0.79
	Information providing	0.75
Interactivity	Reactivity	0.84
	Navigation	0.80
	Liveliness	0.78
	Relationship	0.76
Sports site loyalty	-	0.80

interactivity reliability analysis, reactivity was 0.84, navigation was 0.80, liveliness was 0.78 and relationship was 0.76. Third, the loyalty reliability of the sports site was 0.80. All factors were measured as reliable items.

Table 4: Effects of internet media abilities on interactivity

Variables	Interactivity							
	Navigation		Reactivity		Liveliness		Relationship	
	$\beta$	t-values	$\beta$	t-values	t-values	t-values	$\beta$	t-values
Constant	-	11.096	-	13.415	-	5.458	-	6.404
Critical ability	0.348	10.927***	0.270	6.870***	0.245	6.378***	0.072	2.058*
Using ability	0.133	3.795***	0.173	4.361***	0.140	3.646***	0.126	3.595***
Information providing	0.315	8.875***	0.180	4.512***	0.860	2.213*	0.434	12.310***

R<sup>2</sup> = 0.300; 0.116; 0.164; 0.320; F = 106.167\*\*\*; 32.395\*\*\*; 48.462\*\*\*; 115.188\*\*\*; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

**RESULTS AND DISCUSSION**

**The effect of internet media ability on interactivity:**

Regression analysis of effects of media abilities on interactivity is shown in Table 4. Specifically, media abilities had statistically significant effects on navigation, reactivity, liveliness and relationship in interactivity at the 0.1% level.

On navigation and reactivity in interactivity, critical ability, using ability and information providing of media had significant effects at the 0.1% level and on liveliness, critical ability and using ability had significant effects at the 0.1% level and information providing at the 5% level. Also, on relationship, using ability and information providing had significant effects at the 0.1% level and critical ability at the 5% level.

Regarding the beta values which represent relative contribution, navigation had the largest effects on critical ability ( $\beta = 0.348$ ), information providing ( $\beta = 0.315$ ) and using ability ( $\beta = 0.133$ ) in the order; reactivity on critical ability ( $\beta = 0.270$ ), information providing ( $\beta = 0.180$ ) and using ability ( $\beta = 0.173$ ) in the order; liveliness on critical ability ( $\beta = 0.245$ ), using ability ( $\beta = 0.140$ ) and information providing ( $\beta = 0.086$ ) in the order and relationship on information providing ( $\beta = 0.434$ ), using ability ( $\beta = 0.126$ ) and critical ability ( $\beta = 0.072$ ) in the order. The explanatory power of media abilities on interactivity was 30% in navigation, 11.6% in reactivity, 16.4% in liveliness and 32% in relationship.

**The effect of internet media ability on sports site loyalty:**

Regression analysis of effects of media abilities on sports site loyalty is shown in Table 5. Specifically, media abilities had significant effects on sports site loyalty at the 0.1% level. Only information providing in media abilities had a significant effect on sports site loyalty at the 0.1% level.

Regarding the beta values which represent relative contribution, information providing ( $\beta = 0.201$ ), using ability ( $\beta = 0.081$ ) and critical ability ( $\beta = 0.044$ ) had the largest effects in the order. The explanatory power of media abilities on sports site loyalty was 10.4%.

Table 5: Effects of internet media abilities on sports site loyalty

Variables	Site loyalty			
	B	SE (B)	$\beta$	t-values
Constant	2.105	0.218	-	9.636
Critical ability	0.047	0.056	0.044	0.842
Using ability	0.087	0.055	0.081	1.566
Information providing	0.193	0.052	0.201	3.745***

R<sup>2</sup> = 0.104; F = 10.843\*\*\*; \*\*\*p<0.001

Table 6: Effects of interactivity on sports site loyalty

Variables	Site loyalty			
	B	SE (B)	$\beta$	t-values
Constant	1.311	0.277	-	4.738
Navigation	0.160	0.070	0.118	2.281*
Reactivity	0.167	0.068	0.129	2.472*
Liveliness	0.282	0.065	0.228	4.310***
Relationship	0.246	0.070	0.180	3.520***

R<sup>2</sup> = 0.132; F = 14.149\*\*\*; \*p<0.05; \*\*\*p<0.001

**The effect of interactivity on sports site loyalty:**

Regression analysis of effects of interactivity on sports site loyalty is shown in Table 6. Specifically, interactivity had significant effects on sports site loyalty at the 0.1% level. On sports site loyalty, liveliness and relationship in interactivity had significant effects at the 0.1% level and navigation and reactivity at the 5% level.

Regarding the beta values which represent relative contribution, liveliness ( $\beta = 0.228$ ), relationship ( $\beta = 0.180$ ), reactivity ( $\beta = 0.129$ ) and navigation ( $\beta = 0.118$ ) had the largest effects in the order. The explanatory power of interactivity on sports site loyalty was 13.2%.

**CONCLUSION**

First, internet media ability partially affected interactivity. Such a result implies that interactivity makes internet users interested in particular websites, maintain an interactive relationship and repeatedly seek them (Lee and Lee, 2010) Furthermore, the interactive characteristics of websites positive or negatively affect user attitudes toward a website.

Second, internet media ability partially affected sports site loyalty. An information society environment like modern society is made in various forms as numerous types of websites are created on the internet. Therefore,

when users wander this sea of so much information, they can waste time without finding the information needed or may get the wrong information. These issues of internet media cause great individual or social problems. This implies that users need the ability to beneficially use internet websites by sorting out the numerous websites that have emerged with the advancement of the internet.

Third, interactivity partially affected sports site loyalty. This means that interactivity carried out on the internet plays a positive role in enabling users to continue being active on sports sites. A summary of the research results shows that sports have become a part of our lives whether the participation is direct or indirect. The internet has been developed so much more along with the use of virtual space and the advancement of media, so that it allows users to share opinions and information, providing the convenience of living that enables the purchase of sports equipment in terms of sports marketing. To properly use this convenience, users desperately need the ability to use internet media.

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