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The Effects of E-sports Broadcasting Commentator's Attributes on Broadcasting Attitude and Continuous Viewing Intention

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Abstract

The purpose of this study is to determine the impact of broadcasters' broadcasting commentators' attributes on broadcasting conditions and the intention of continuous viewing of e-sports competitions. To achieve this goal, a survey was conducted on 300 university students who had experience watching e-sports competition broadcasting. The final 295 copies were selected as the final valid samples and data processing was carried out. Using SPSS 23, factor analysis, reliability analysis, correlation analysis, and simple and multiple regression analysis were performed. The result of this study was: First, reliability and attractiveness among the sub-factors of commentator attributes were shown to have a positive effect on broadcasting conditions. Second, reliability and attractiveness among the sub-factors of commentator attributes have a positive effect on the intent of continuous viewing. Third, broadcasting conditions have a positive effect on the intention of continuous viewing.

Keywords: *E-sports, Broadcasting, Commentator's Attributes, Broadcasting Attitude, Continuous Viewing Intention*

1. Introduction

Since the mid-1990s, when the third industrial revolution, or information revolution began, e-sports has developed into an area of cultural industry centered on Starcraft of Blizzard in the United States. Since then, it has been in its heyday until around 2010, and faced a crisis due to internal and external problems such as the absence of new e-sports games, match fixing incidents, and conflicts between game developers and e-sports competition broadcasters. However, due to the recent popular games such as League of Legends, Starcraft 2 and DOTA2, e-sports are in their second heyday [1]. The characteristics of e-sports are much similar to those of sports, ranging from the external characteristics of players, teams, spectators, sponsors and media to internal characteristics such as competition, rules, and fair play [2].

E-sports are loved by teenagers and 20s in Korea, and as a result, some sports are attracting more spectators than professional sports, and broadcast viewers also have more viewers than professional sports. This is not only happening in Korea but also in various countries where e-sports are gaining popularity. The size of the domestic e-sports industry was 97.3 billion won as of 2017, followed by 46.5% in sales, 21.2% in e-sports, 21.1% in streaming, 7.1% in prize money, and 4.1% in prize money from the previous year [3]. In addition, with most sports markets shrinking due to COVID-19, e-sports are showing a rather rapid growth of 20% compared to the previous year[4]. This can be said to be the result of e-sports receiving attention as broadcasting and streaming-oriented content.

e-sports, like sports, will be important for commentators to play an important role in broadcasting. If you look at the

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prior studies related to these commentators, broadcasters broadcast sports through professional sports broadcasters who can provide information and entertainment on high-tech grounds in real time, but viewers will experience sports indirectly through sports broadcasts [5]. And the information in e-sports video is important in shaping viewers' attitudes to the media [6]. In this media environment, the importance of the role of announcers and commentators in broadcasting along with broadcasting technology is increasing [7]. In particular, it is very important for broadcasters to be able to deliver sound and video to media inmates because of the technical aspects of broadcasters, detailed game flow, realistic field atmosphere, and information [8].

Therefore, this study aims to find out the relationship between broadcasting situation and continuous viewing by viewers to enhance the value of e-sports broadcasting, which is receiving much attention from the public in the second heyday, and to find out the positive effects of broadcasting. The results of this study are believed to be able to provide basic data for the development of the commentator's operation strategy and e-sports broadcasting when broadcasting e-sports competitions in the future. In other words, the purpose of this study is to identify the nature of e-sports broadcasting commentators and the relationship between broadcasting situation and continuous viewing, and provide empirical basic data to the broadcasting company's operating strategy.

2. Research Method

2.1 Research Subjects

This study collected data using convenience sampling methods for viewers of e-sports competitions. In order to collect the data, a questionnaire was distributed to college students who had experience watching the e-sports competition, and they were collected after writing the questionnaire themselves. Through this process, 295 copies out of a total of 300 were used as final effective samples, excluding five unfaithfully written copies.

2.2 Research Tools

This study used structured questionnaires, and the composition was modified and supplemented to suit the purpose of this study based on the questions used in prior studies. In other words, the questions developed in Lee(2020) study were based on four questions of professionalism, four questions of reliability, and four questions of attractiveness [5]. In order to measure the broadcasting attitude, four questions were constructed through the questions used in the study of Kim, Nam and Jang(2015) [9], and four questions were constructed to measure the continuous viewing intention the questions used in the study of Kim(2017) [10]. The specific contents are as shown in Table 1.

Table 1. Composition of survey tools

Factors		Questions
Commentator's Attributes	Professionalism	4
	Reliability	4
	Attractiveness	4
Broadcasting Attitude		4
Continuous Viewing Intention		4
Sum		20

2.3 Validity and Reliability Analysis

To verify the feasibility of the survey tool, the main component analysis and factor rotation were conducted through factor rotation using the Varimax method, and only factors with more than one eigenvalue were extracted. The Cronbach's α method was then used to verify the reliability of the investigation tool.
The results of validating the validity of the narrator attributes were classified into three factors: professionalism, reliability and attractiveness, as shown in Table 2, and cumulative explanatory power was 70.264% of the total variance.

Table 2. Commentator attribute factor analysis results

Item	Professionalism	Reliability	Attractiveness	h^2
1	**0.821**	0.207	0.177	0.749
2	**0.759**	0.268	0.274	0.723
3	**0.774**	0.128	0.253	0.680
4	**0.823**	0.048	0.212	0.724
5	0.291	0.199	**0.723**	0.647
6	0.326	0.164	**0.695**	0.617
7	0.212	0.253	**0.775**	0.710
8	0.210	0.441	**0.662**	0.677
9	0.055	**0.720**	0.391	0.675
10	-0.002	**0.721**	0.369	0.656
11	0.298	**0.825**	0.147	0.791
12	0.303	**0.824**	0.110	0.783
Eigenvalues	2.991	2.856	2.584	
Variance (%)	24.929	23.798	21.536	
Accumulated (%)	24.929	48.728	70.264	

The results of verifying the feasibility of broadcasting attitude and continuous viewing intention were classified as individual factors, as shown in Table 3, and the cumulative explanatory power was 88.009% of the total variance.

Table 3. Broadcasting attitude and continuous viewing intention factor analysis results

Item	Continuous viewing intention	Broadcasting attitude	h^2
1	0.310	**0.852**	0.821
2	0.280	**0.913**	0.912
3	0.294	**0.887**	0.873
4	0.305	**0.876**	0.861

5	**0.866**	0.352	0.875
6	**0.877**	0.358	0.897
7	**0.915**	0.285	0.918
8	**0.910**	0.235	0.884
Eigenvalues	3.539	3.502	
Variance (%)	44.233	43.775	
Accumulated (%)	44.233	88.009	

After the verification of convergent validity and discriminant validity, Cronbach's α testing was conducted for the verification of the reliability of the internal consistency of each factor. As shown in Table 4, the values of Cronbach's α in all factors are over .7 suggested by Nunnally & Bernstein [11] thus proving the internal consistency of all the factors.

Table 4. Reliability analysis results

Factors		Cronbach's α
Commentator's attributes	Professionalism	0.867
	Reliability	0.826
	Attractiveness	0.849
Broadcasting attitude		0.949
Continuous viewing intention		0.959

2.4 Data Processing Methods

Using the SPSS 23.0 program by computerizing the final valid sample to derive the results of this study. It was verified at the significance level of 0.05. Specific data processing methods in this study have been validated using factor analysis and reliability verification with Cronbach's α. In addition, frequency analysis to examine the general characteristics of subjects, correlation analysis for verification of each research problem, and simple and multiple regression analysis were conducted.

3. Results

3.1 Correlation Analysis

The results of analyzing the correlation between each factor used in this study show that the correlation coefficient is less than 0.80 as shown in Table 5, indicating that the multi collinearity between each factor is not problematic.

Table 5. Correlation analysis results

Fators	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
Professionalism	1				
Reliability	0.619***	1			
Attractiveness	0.447***	0.668***	1		
Broadcasting attitude	0.334***	0.542***	0.448***	1	
Continuous viewing intention	0.250***	0.482***	0.485***	0.611	1

*** p<.001

3.2 Hypothesis Verification Results

The analysis of the effect of commentator attributes on broadcasting attitude shows that attractiveness(β=0.157, p<0.05) and reliability(β=0.443, p<0.001) among the sub-factors of commentator attributes have a significant effect, as shown in Table 6. It explains 30.7% of the factors in the broadcasting attitude.

Table 6. Effect of commentator attributes on broadcasting attitude

Factors	b	β	t
	1.474		5.173***
Professionalism	-0.011	.-0.010	-0.157
Reliability	0.462	0.443	5.924***
Attractiveness	0.178	0.157	2.386*
F		42.953***	
R^2		0.307	

*p<.05, ***p<.001

The results of the analysis on the effect of commentator attributes on continuous viewing intention showed that reliability(β=0.340, p<0.001) and attractiveness(β=0.300, p<0.001) have a statistical effect among the sub-factors of commentator attributes, as shown in Table 7, and explain 26.4% of the factor variations in sustainable viewing intention.

Table 7. Effect of commentator attributes on continuous viewing intention

Factors	b	β	t
	1.042		2.999**
Professionalism	-0.129	- 0.095	-1.501
Reliability	0.426	0.340	4.479***
Attractiveness	0.408	0.300	4.500***
F		38.790***	
R^2		0.286	

**p<.01, ***p<.001

As shown in Table 8, the analysis of the effects of broadcasting attitude(β=0.611, p<0.001) on the continuous viewing intention shows that the factors have a statistically positive effect, and 34.7% of the variations in the intention of continuous viewing are explained.

Table 8. Effect of broadcasting attitude on continuous viewing intention

Factors	b	β	t
	0.968		4.199***
Broadcasting attitude	0.734	0.611	13.217***
F		174.695***	
R^2		0.347	

***p<.001

4. Conclusion

The results of this study show that the reliability and attractiveness of the commentator attributes of e-sports broadcasting have a positive impact on the attitude of viewers to broadcasting companies, and that reliability and attractiveness have a positive impact on continuous viewing. And it can be seen that viewers' attitudes toward broadcasters formed through the narrator's reliability and attractiveness have a positive impact on the intention of continuous viewing. If this is applied to e-sports commentators, commentators play an important role in providing information to viewers. Therefore, broadcasters who broadcast e-sports competitions will have to seek various strategies to positively shape the attributes of commentators such as reliability and attractiveness. In other words, it should try to make commentators more attractive to viewers at the same time as increasing viewers' trust in commentators of broadcasting broadcasts. To this end, it should be actively used to identify and develop what viewers want from commentators through surveys, contests, events, and viewer bulletin boards, broadcasters and commentators' SNSs. These various strategies and efforts will ultimately create a positive attitude toward the broadcasting company, and ultimately increase the level of continuous viewing of broadcasting stations so that they can have more positive effects on the broadcasting company.

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