

## The Structural Relationship among e-Sports Professional Club Authenticity, Club Trust, Club Attitude and Club Loyalty

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### Abstract

*The purpose of this study is to investigate the structural relationship between authenticity, club trust, club attitude, and club loyalty of e-sports professional clubs. To achieve the purpose of the study, data were collected from 260 e-sports fans. Sampling was performed using the convenience sampling method, and the completion of the questionnaire was made to respond with the self-administration. Among the collected data, 255 copies were used by adopting the final analysis data, excluding 5 copies of the data judged to be difficult to use. Data processing was performed by using SPSS 27.0. In order to verify the centralized validity and discriminant validity of the measurement items, a confirmatory factor analysis was performed using AMOS 23.0, and the hypothesis was verified using structural equation model analysis. The results were as follows. First, it was found that among the sub-factors of the authenticity of e-sports clubs, truth and effort had a significant effect on club trust. Second, it was found that club trust had a significant effect on club attitude. Third, it was found that club trust had a significant effect on club loyalty. Fourth, it was found that club attitude had a significant effect on club loyalty. The results of this study show that if e-sports clubs operate sincerely, fans' trust in the club increases. In addition, it can be seen that the higher the trust, the more positive the fans' attitude toward the club is, affecting the loyalty of the fans.*

**Keywords:** e-Sports, Authenticity, Trust, Attitude, Royalty

### 1. Introduction

The international competitiveness of domestic e-sports is evaluated as excellent, and a large number of Korean athletes are organized in famous overseas e-sports professional clubs. In addition, it was adopted as the first official event at the 2022 Hangzhou Asian Games, and the IOC is showing interest in e-sports. At home and abroad, interest in the e-sports industry is increasing.

e-Sports clubs are having difficulty securing fans of the club due to the absence of franchise star players and various transfers of players. Authenticity can play an important role in overcoming these difficulties.

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Looking at the preceding studies related to authenticity, the authenticity of the organization or service that customers feel plays an important role in enhancing customer trust [1-3]. Customers highly value the quality of authentic service, increase satisfaction or trust in the service, and ultimately positively act on reuse or word of mouth intentions [4]. Through this, it can be seen that the authenticity of the e-sports club perceived by the fans can positively affect the trust and satisfaction of the club to the fans. As a way for the club to gain trust from the fans, it will be possible to examine the fans' reactions to campaigns or activities that emphasize the sincerity announced by the club, or to analyze how the fans respond to this sincerity through comments, sharing, and likes on social media platforms to see how much trust the fans have formed [5].

Club trust refers to the degree to which fans feel a sense of stability and trust in a specific club. The higher the trust in the club, the more the fans form a positive image for the club, and the more trust and affection for the club increase. Fans with high trust in the club tend to form a positive attitude toward the club [6]. This means that the club's performance, culture, and interaction with players are evaluated positively, meaning that fans express their affection for the club, and positive attitudes are strengthened as fans feel trust in the club. This leads to the case where the club maintains trust even in unexpected situations and continues to provide positive experiences to fans.

If the audience has high trust in the club, loyalty to the club can also increase [7]. The favorable attitude toward the club felt by professional sports fans is not created by itself, but is formed based on the trust and trust in the club perceived by existing professional sports fans [8]. Trust and trust in the club can be interpreted as contributing to improving the positive attitude toward the club.

Summarizing the above, it can be seen that the authenticity of a sports club can positively affect loyalty through club trust and satisfaction. Through this, it can be inferred that the authenticity of the e-sports club perceived by e-sports fans can positively form the fans' trust, club attitude, and club loyalty, and act with high importance. Accordingly, this study aims to investigate the relationship between the authenticity, club trust, club attitude, and club loyalty of e-sports professional clubs through a structural equation model. The results of this study can be used as basic data for marketing and policy establishment of e-sports associations, leagues, and clubs in the future.

## **2. Research Hypothesis**

In this study, hypotheses were established based on the research results and theoretical evidence of previous studies at home and abroad. In addition, hypotheses were constructed around the causal relationship between the authenticity of the e-sports club, the trust of the club, the attitude of the club, and the loyalty of the club. The contents of the specific hypothesis setting are as follows.

### **2.1 Relationship between club authenticity and club trust**

In the relationship between authenticity and trust, authenticity can be said to be the basis and core to build trust between companies and consumers [9]. Looking at the preceding studies related to the relationship between authenticity and trust, many studies have been found that the authenticity of companies, organizations, and brands has a positive effect on trust [10, 11]. Through this, it was found that if the e-sports club operates authentically, fans' trust in the club can be improved. Therefore, the following hypothesis was established for the relationship between club authenticity and club trust.

H1. Club authenticity will have a significant impact on club trust.

- H1-1. Truth will have a significant impact on club trust.
- H1-2. Communication will have a significant impact on team trust.
- H1-3. Efforts will have a significant impact on team trust.
- H1-4. Relationships will have a significant impact on club trust.

**2.2 Relationship between club trust, club attitude and club loyalty**

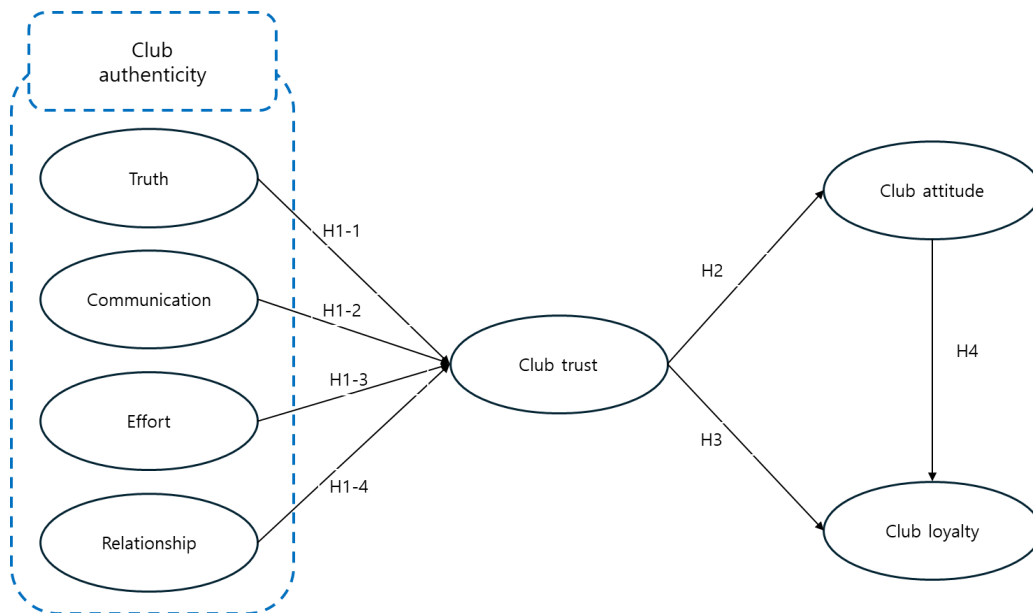
The trust of e-sports fans in e-sports clubs can play an important role in forming an attitude toward the club. Looking at previous studies related to the relationship between trust and attitude, it was said that the higher the trust in a specific object is formed, the more positive the attitude toward that object is formed [12, 13].

Loyalty is the customer's favorable feelings and commitment to services and products provided by companies, and is identified by post-behavior such as revisiting or positive recommendations. Reliability has a direct relationship with customer loyalty, and loyalty increases when customers have positive trust in the company [14]. And looking at previous studies related to professional sports, audience trust has a positive effect on loyalty [15].

Looking at the research related to the relationship between attitude and loyalty, brand loyalty is a measure of consumers' brand attitude on brand selection behavior [16]. In other words, brand attitude has an influence on brand loyalty as a prerequisite [17]. Looking at previous studies related to professional sports clubs, it has been shown that team attitude has a positive effect on team loyalty [18, 19]. Therefore, the following hypothesis was established.

- H2. Club trust will have a significant impact on club attitude.
- H3. Club trust will have a significant impact on club loyalty.
- H4. Product satisfaction will have a significant impact on repurchase intention.

Figure 1 shows the model of this study, which was set around the above research hypothesis.



**Figure 1. Study model**

### 3. Research Method

#### 3.1. Research Subjects

The survey subjects of this study were a total of 260 LCK visitors or viewers among fans of e-sports professional clubs. Among the collected data, 255 copies were used by adopting the final analysis data, excluding 5 copies of the data judged to be difficult to use. The sampling method used the convenience sampling method, and the self-evaluation method, which is a method in which the respondent reads and answers the contents by himself, was used to fill out the questionnaire. The investigator used a researcher and one researcher who was trained in advance. After fully explaining the purpose and contents of this study to LCK visitors or viewers among e-sports professional club fans, they were allowed to respond to the questionnaire, and a valid sample was finally obtained excluding the questionnaire that responded unfaithfully among the collected data. The general characteristics of the survey subjects described above are shown in Table 1.

**Table 1. Characteristics of Subjects**

	Division	Frequency(person)	%
Gender	Male	167	65.6
	Female	88	34.5
	Sum	255	100
Age	10	16	6.3
	20	186	72.9
	30 over	53	20.8
	Sum	255	100
Occupation	Student	8	3.1
	University student	167	65.5
	Office worker	35	13.7
	Self employed	3	1.2
	Not employed	6	2.4
	Others	2	0.8
	Sum	255	100

#### 3.2. Research Tools

The questionnaire was used as a measurement tool to investigate the influence between the set variables that fit the purpose of this study. Each question in the questionnaire was used after revising and supplementing to suit the purpose of the study, focusing on those whose reliability and validity were secured based on previous research and theory that fit the purpose of the study. Content validity was confirmed through the advice of professors and experts in the fields of e-sports marketing and sports marketing. Excluding demographic

characteristics, the questions of authenticity, team trust, team attitude, and team loyalty were constructed using a 5-point Likert scale. Details are shown in Table 2.

**Table 2. Composition of survey tools**

Factors	Items	Sources
Authenticity	Truth	Moon & Byun(2017) [20]
	Communication	
	Efforts	
	Relationships	
Club trust	4	Yang & Kim(2018) [21]
Club attitude	4	Kim, Kim, & Kim(2012) [22]
Club loyalty	4	Lee, Kim, & Kim(2017) [23]
Sum	31	

**3.3. Validity and reliability analysis**

Confirmatory factor analysis was performed to verify convergent validity for the variables of the entire study. As a result, it was shown as in Table 3. The maximum likelihood (ML), which can assume multivariate normality, was used as a practical analysis method.

By evaluating the fitness, the optimal state of the variable composition and the constituent concept was confirmed. Accordingly, the results as shown in Table 3 were obtained. The fitness was verified by TLI (standard 0.9 or more), CFI (standard 0.9 or more),  $\chi^2/df$  values (standard 3 or less), and RMSEA (standard 0.05~0.08 or less) [24, 25]. As a result, CFI=0.926, TLI=0.914,  $\chi^2/df=2.403$ , and RMSEA=0.075 were found to satisfy the relatively fit. In addition, in order to confirm the centralized validity, the standard value, the AVE value, and the concept reliability were compared [25]. As a result, all of the factors except for the AVE value of work immersion were found to be AVE .5 or more, concept reliability .7 or more, and standard value .5 or more, satisfying all the criteria. The AVE value of work immersion did not reach .5, but it was found to satisfy the standard value and the criteria of concept reliability.

**Table 3. Confirmatory factory analysis & reliability**

Factors	S.E.	M.E.	C.R	AVE	Cronbach's $\alpha$
Truth1	0.880	0.226			
Truth2	0.875	0.234	0.935	0.782	0.934
Truth3	0.915	0.163			

Truth4	0.866	0.250			
Communication1	0.859	0.262			
Communication2	0.804	0.354			
Communication3	0.876	0.233	0.931	0.729	0.928
Communication4	0.818	0.331			
Communication5	0.907	0.177			
Effort1	0.757	0.427			
Effort2	0.781	0.390			
Effort3	0.768	0.410	0.863	0.559	0.854
Effort4	0.788	0.379			
Effort6	0.634	0.598			
Relationship1	0.852	0.274			
Relationship2	0.813	0.339	0.884	0.718	0.882
Relationship3	0.876	0.233			
Club trust1	0.922	0.150			
Club trust2	0.853	0.272			
Club trust3	0.912	0.168	0.932	0.773	0.929
Club trust4	0.827	0.316			
Club attitude2	0.871	0.241			
Club attitude3	0.935	0.126	0.912	0.776	0.906
Club attitude4	0.833	0.306			
Club loyalty1	0.674	0.546			
Club loyalty2	0.848	0.281	0.750	0.506	0.746
Club loyalty3	0.587	0.655			

$\chi^2=728.124$ ,  $df=303$ ,  $p=0.000$ ,  $\chi^2/df=2.403$ ,  $TLI=0.914$ ,  $CFI=0.926$ ,  $RMSEA=0.075$

Fornell & Larcker stated that there is discriminant validity between the two constructs if the value of AVE of each construct is more than the squared value of the correlation coefficient [26]. Therefore, the value of AVE presented in Table 3 was compared with the squared value of the correlation coefficient of each concept in the correlation analysis in Table 4. As the value of AVE is more than the squared value of the correlation coefficient, the scales used in this study have discriminant validity.

In order to analyze the reliability of the scales used in this study, an internal consistency test was performed using Cronbach's  $\alpha$  test. If Cronbach's  $\alpha$  value is 0.7 or higher, the reliability is sufficient [27]. As a result of

Cronbach's  $\alpha$  test in this study, the reliability coefficient was 0.7 or higher in all factors. It can be judged that each factor has internal consistency. The results of the specific reliability test were as shown in Table 3.

**Table 4. Correlation analysis**

Fators	1	2	3	4	5	6	7
Truth	1						
Communication	0.768**	1					
Effort	0.633**	0.685**	1				
Relationship	0.469**	0.518**	0.580**	1			
Club trust	0.771**	0.698**	0.689**	0.500**	1		
Club attitude	0.518**	0.416**	0.553**	0.471**	0.686**	1	
Club loyalty	0.432**	0.496**	0.522**	0.437**	0.593**	0.494**	1

\*\* $p < 0.01$

## 4. Results

### 4.1 Fit of the Model & Hypothesis Test Results

The results of Table 5 could be obtained through the analysis of the structural equation model established in this study. As a result, TLI=0.910, CFI=0.920,  $\chi^2/df=2.480$ , and RMSEA=0.077, confirming that the relatively fit was satisfied. Therefore, in this study, the research model for hypothesis verification was relatively suitable, and it was judged that there was no problem in verifying the hypothesis.

The hypothesis was verified and the results shown in Table 5 were obtained. The specific hypothesis verification results are as follows. First, among the four variables of the authenticity of e-sports clubs, truth and effort were found to have a significant effect on club trust. Second, it was found that club trust had a significant effect on club attitude. Third, it was found that club trust had a significant effect on club loyalty. Fourth, club attitude was found to have a significant effect on club loyalty.

**Table 5. Fit of the Model & hypothesis verification result**

	Hypothesis		Estimate	S.E.	t	
H1-1	Truth	⇒	Club trust	0.548	0.087	6.313***
H1-2	Communication	⇒	Club trust	0.050	0.098	0.511
H1-3	Effort	⇒	Club trust	0.359	0.087	4.109***
H1-4	Relationship	⇒	Club trust	0.055	0.060	0.907
H2	Club trust	⇒	Club attitude	0.582	0.048	12.096***

H3	Club trust	⇒	Club loyalty	0.455	0.074	6.142***
H4	Club attitude	⇒	Club loyalty	0.161	0.081	1.988*

$X^2=771.332(df=311, p=0.000)$ ,  $X^2/df=2.480$ ,  $TLI=0.910$ ,  $CFI=0.920$ ,  $RMSEA=0.077$  \* $p<0.05$ , \*\*\* $p<0.001$

## 5. Conclusion

Through this study, we found that if e-sports clubs operate sincerely, fans' trust in the club can increase. And it can be seen that the higher the fan's trust in the club, the more positive the attitude toward the club is formed and directly affects the loyalty of e-sports fans.

These findings suggest that if the e-sports club operates with genuine management and a positive attitude, e-sports fans will build trust in e-sports clubs and go through this stage to become loyal to the club. These findings suggest that in order to gain loyalty from fans, e-sports clubs should not demand loyalty directly from e-sports fans, but first show sincerity to e-sports fans or consumers even in sincere operations and sincere operational stages. This sincere attitude will make e-sports fans feel trust in the club only when they show consistent efforts, not just one-off, and the club, which has built steady trust, can eventually reach the stage of club loyalty to e-sports fans.

For the success of the e-sports industry, not only the e-sports club's consistent efforts but also many fans who love e-sports should strive for e-sports culture, especially e-sports clubs, which should strive to develop the e-sports industry worldwide by holding many socially positive events or allowing e-sports fans and e-sports players to participate directly or indirectly for this culture.

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