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An empirical study of fan community loyalty based on social identity theory

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Abstract:

Football fans community loyalty is a decisive factor in enhancing the brand and commercial value of Chinese Super League and promoting the development of Chinese football. In this context, this study starts from the perspective of "fans community" based on the social identity theory. The article introduces two variables, fan community identity and fan community value, and conducts empirical analyses using questionnaires and SPSS to investigate their effects on fan community loyalty. The results show that fan community value and fan community identity have a critical positive effect on fan community loyalty. Therefore, the Chinese Super League clubs are expected to increase fan loyalty through increasing fans community awareness by organizing collective activities to enhance loyalty. Based on the results, this article explores fan community loyalty from a new perspective, and then guides teams and clubs to provide better services to fans, which will ultimately increase fan loyalty and club business value.

Keywords: Social identity theory, Fan community identity, Fan community value, Fan community loyalty

1. Introduction

The book about "Commercial Value of the Chinese Super League for the 2020-2021 Season" shows that even during the epidemic, football-related themes ranked first in terms of communication data across different types of social platforms. Besides, the average number of spectators at league matches has grown from 11,000 to 24,000 over the past 15 years. Meanwhile the total sponsorship of the Chinese Super League has exceeded 300 million yuan, covering 13 industries [1]. Therefore, Football is still the most far-reaching sports in China, of which the Chinese Super League is the most commercially valuable top-level tournament IP. Most importantly these achievements cannot be separated from the support of a large fan base. "The Medium and Long-term Development Plan of Chinese Football (2016-2050)" proposes that attention should be paid to increasing the number of fans watching matches. It is obvious that the influence of the fan community on the Chinese Super League and even Chinese football is self-evident. Fans are the key link in the sustainable development of the Chinese Super League, and the loyal fan community is beneficial to reform and improve the construction and operation mode of clubs. Consequently, the football clubs are more likely to create profits and continue to survive [2].

However, the main problem in Chinese football should be

the contradiction between the growing demand of fans to watch matches and the backward competition level and management level of Chinese football [3]. Worse still, club management is overly concerned with political factors [3], which leads to the neglect of fans' interests and emotions during the club's operation. Therefore, this article introduces the social identity theory to explore the path to improve the loyalty of fan communities, with a view to providing valuable suggestions for practice.

Based on social identity theory, this study investigates the influence of fan community identity [4] and fan community value on fan community loyalty [5], with a good theoretical foundation and variables with mature scales through questionnaires and SPSS for data analysis. At the same time, the samples studied in this paper are fans who support Chinese Super League clubs, and the base of Chinese football fans is growing. Thus, it is easy to reach the target group through the Internet, so it is easier to collect data.

The rest of this paper arrangements as followed: The second section is Study Design, the third section is Questionnaire design, the fourth section is Study results, and the ultimate section is conclusion.

2. Research Design

2.1 Theoretical foundation

Social identity theory emerged in the 1970s and focuses on answering the question of "who am I" as well as "who are we" [6]. It describes the relationship between the individual and the group. Tajfel defines social identity as "an individual's recognition that he or she belongs to a particular social group, and also the emotional and value significance that being a member of the group brings to him or her" [7].

Community identity is derived from social identity, which reflects a kind of group consciousness of community members and belonging to the group perception [8]. "Brand community" refers to "A group of consumers gathered around a certain brand and established on the basis of a certain social relationship, without geographical limitations and interact with each other in a specialized group [5]. Sports as a form of self-representation has been found to reinforce one's identity as a member of a social group and maintain social identity [9]. In sport brand communities, members form a network of relationships with similar interests and emotional ties, i.e., a sense of community that leads to a strong team identity. Thus, interactions and exchanges that give members a sense of community and attachment, resulting in the belonging to the group [10], which in turn enhances brand community loyalty [11].

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2.2 Research hypothesis

2.2.1 Fan Community Identity and Fan Community Loyalty

The author believe that the most important feature of community is community identity [4], which is derived from social identity theory and gives a reasonable explanation for the behaviour and motivation of community members. When fan groups form a community with consistent behaviour and attitudes through collective cheering, etc., their common consciousness is strengthened, and a certain community identity is formed. At the same time, it was found that in such communities based on common themes such as art clubs, editorial boards of school newspapers and football teams, as long as the group's goals and the-

matic values match their own identities, individuals will show higher loyalty and willingness to participate in the community as a whole [10]. So when fans identify more with the community, the weaker the willingness to maintain personal independence. It is possible to get the stronger participation, and ultimately contributes to the increase of loyalty to this community [12]. Based on the above analyses, the following hypotheses are proposed in this study:

H1: Fan community identity has a positive effect on fan community loyalty

2.2.2 Fan Community Value and Fan Community Loyalty

Brand communities are developed with community members, i.e., community members hold more voice and initiative [4]. It has been found that individual consumers (i.e., fans) of a community can create four types of brand community values with the community: functional value, recreational value, social value, and emotional value [4]. In detail, the functional value is reflected in the functional needs that can be satisfied by fans; the leisure and entertainment value is reflected in the enjoyment and pleasure that fans get from watching the game or participating in various activities together with the group; the social value is to make like-minded friends and enrich the social circle among the fan community; and the emotional value is the sense of belonging and achievement that the fans feel from the bottom of their hearts when they are integrated into the community. The emotional value is the sense of belonging and achievement generated by the fans when they integrate into the community. This paper argues that these four brand community values make individuals feel a sense of belonging and pride in the fan community (attitudinal loyalty), which in turn promotes fans to actively promote the club community to their friends, and also reduces the possibility of switching to other competing teams and ultimately increases their consumption of the community (behavioural loyalty). Based on the above analysis, the hypotheses as followed:

H2: Fan community value has a positive effect on fan community loyalty

3 Questionnaire design

In this study, a five-point Likert scale was used for questionnaire design. Three basic questions were set on the basis of demographic characteristic variables such as gender, age, monthly disposable income. On the dependent variable fan community loyalty, four measurement items were set with reference to the scale of exits paper [4]; on the main variable fan community identity measurement, four measurement items were set with reference to the

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scale of some research [5]; and on fan community value [7], four measurement items were set with reference to the scale of similar study. In order to ensure the credibility and validity of the questionnaire, the questionnaire was first pre-surveyed and screening items were set.

4 Results of the study

4.1 Descriptive statistics

The Table1 shows that there are 95 males and 6 females in the sample, mainly because males are more fond of football compared to females. In terms of age distribution, 0-20 years old (40.6%) and 21-30 years old (54%) are the main distributors, and the emerging young fan group is rising significantly; the average monthly disposable income of 1,000-2,999 (34.7%) and 5,000 yuan or more (27.7%) accounted for a higher proportion of members of the fan community can be seen to have a certain degree of difference in the level of economic income; at the same time, in the fans' most anticipated collective activities, star autographs accounted for 71.37%, and the percentage of the

fans' most anticipated activities was 71.37%. Meanwhile, among the most anticipated fan group activities, autograph sessions with football stars accounted for 71.37%, which shows that it is a good choice to attract fan groups through the attraction of football stars.

Table 1. Reliability analysis

Dimension	Cronbach's α coefficient		
Fan community loyalty	0.908		
Fan community identity	0.905		
Fan community value	0.914		

4.2 Reliability analysis

It can be seen from Table2 the Cronbach's Alpha values of fan community loyalty, fan community identity, and fan community value are 0.908, 0.905, and 0.914, respectively. Besides the Alpha reliability coefficients of each dimension are larger than 0.7, which indicates that the consistency between the topics corresponding to each dimension is better. The reliability of the scale is better as well, and the recovered data is more reliable.

Table 2. Demographic variables

Statistical variable	Classification and conversion values Frequen		Percentage	Mean	Standard deviation
Gender	male=1	95	94.1	1.06	0.238
	female=2	6	5.9	1.06	0.238
Age	Under 20 years old=1	41	40.6		0.621
	21~30 years old=2	54	53.5		
	31~40 years old=3	5	5	1.66	
	Above 41 years old=4	1	1		
Monthly disposable income	0~999RMB=1	19	18.8		1.091
	1000~2999RMB=2	35	34.7	2.55	
	3000~4999RMB=3	19	18.8	2.55	1.091
	Above 5000RMB=4	28	27.7		

4.3 Validity analysis

As can be seen from Table3 and 4, the total sample size of this study is greater than 100 and the KMO is 0.883 greater than 0.8 with a p-value less than 0.01, which is suitable for factor analysis. The cumulative variance contribution rate is greater than 60% after validity test or dimensionality reduction for other analyses; when the number of three factors is extracted from the result graph, the cumulative variance contribution rate is already 93% much greater than 60%. Therefore, the fan community loyalty measurement model was established and first-order validation fac-

tor analysis was performed. The factor loadings of each measurement item are greater than 0.6 and significant at the P value less than 0.05 level, indicating the hypothesised relationship between the three factors and the corresponding measurement items. As shown, Factor 1 can be summarised as fan community identity, Factor 2 can be summarised as fan community loyalty, and Factor 3 can be summarised as fan community value.

According to the criteria suggested by scholars, the validated factor analysis parameters of this study were compared with them, and all of them could meet the criteria, indicating that the discriminant validity of the observation

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scales of the three latent variables involved in this study was good. And a good fit was achieved between the individual measurement items and the latent variables.

Table 3. KMO and Bartlett's test

KMO Sample Suitability Quantity		0.883
Bartlett's test of sphericity	proximate chi-square	640.089
	degrees of freedom	15
	significance	000

Table 4. Factor analysis

	Ingredient		
	1	2	3
Fan community loyalty 1	333	861	329
Fan community loyalty 2	436	803	327
Fan community identity 1	800	353	385
Fan community identity 2	804	406	314
Fan community value 1	361	345	851
Fan community value 2	568	453	608

4.3 Hypothesis testing

Based on the linear regression equation, the model can be written as follows expression.

$$y=0.459X_1+0.406X_2$$
 (1)

Where X_1 represents fan community identity and X_2 represents fan community value. It can be seen that its coefficient is positive, which means that fan community identity, fan community value are positively correlated with fan community loyalty. And the effect of fan community

identity is more significant. The adjusted R^2 is 0.684, so the goodness-of-fit of this model is better in explaining the low data. For ANOVA, the significance level is 0, which is less than 0.01, so the model is significant. The coefficients in the model are 0.459 and 0.406 which are both significant at 1% level.

In summary, the simple linear regression analysis above shows that hypotheses 1 and 2 are valid, i.e., fan community identity and fan community value have a positive effect on fan community loyalty(Table 5).

Table 5. Regression results

	Unstandardised coefficient	Standard error	Standardised coefficient	t	Significance
(Constant)	909	224		4.050	,000
Fan community identity	375	097	406	3.847	000
Fan community value	435	100	459	4.357	000

5 Conclusion

Based on social identity theory, this paper explores the influence mechanism of fan community loyalty through empirical research. The results show that the above 2 hypothesis are both valid, which means fan community iden-

tity and fan community value have positive effects on fan community loyalty, with fan community identity having a more significant effect. Therefore, Chinese Super League (CSL) clubs should focus on realising fans' perceived functional, recreational, social and emotional values, and

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strengthen their sense of community by organising fan activities such as autograph signings of football stars to enhance the loyalty of the fan community.

This study introduces "fan community identity" into the model of Chinese Super League fan community loyalty and verifies the applicability of social identity theory to fan communities in China. At the same time, this study proves that fan loyalty at the community level is more meaningful than loyalty at the individual level, and that teams and clubs should pay more attention to developing the commercial value of the fan community rather than focusing only on that of the football stars. In future research, firstly, a wider sampling of the fan community should be conducted to collect fans of multiple age levels to make the data more objective and real; secondly, based on the findings of this study, team clubs that have won high honours and trophies in real time have significantly larger fan bases, and team performance can be used as a new variable to explore its impact on fan loyalty; thirdly, the fan community is subject to a large amount of subjective influences, and the present study has only explored the influence of external fan clubs from the variables related to external fan clubs. This study has only explored the factors affecting brand community loyalty from external fan club-related variables, and future research should introduce internal factors such as fans' own personality to further improve the path of brand community loyalty.

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