

# FAN'S COMMITMENT TO SPORT TEAM: A CASE STUDY OF FC BARCELONA

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**ABSTRACT:** In recent years, due to the impact of the pandemic restrictions, the number of people watching live sports events has plummeted, coupled with various factors such as the transfer of major stars and the drop in team performance, Barcelona's average attendance has decreased, the number of lost supporters has been remarkable and the psychological commitment of fans has been significantly affected. Based on the existing research model, this paper summarizes six factors that influence fans' psychological commitment, and then introduces psychological commitment as an outcome variable to build a conceptual model of the psychological commitment of FC Barcelona fans, which is used to study the magnitude of the influence of the six different factors. Data from FC Barcelona supporters were collected and the results indicated significant positive effects of personal identity, affective commitment, resource cost, psychological cost and regional tribalism on fans' psychological commitment. Finally, based on the development situation of FC Barcelona, we present suggestions and management insights on how to improve brand effectiveness, enhance brand building, and stabilize the psychological

commitment of fans, providing theoretical and practical guidance for its future operation and development.

**KEYWORDS:** psychological commitment, FC Barcelona, marketing, fans' commitment, sport management

## INTRODUCTION

Crosby & Taylor (1983) defined psychological commitment (PC) as “*the psychological decisions or cognitions that fix or secure an individual to a particular choice where an individual's internal state resists changing an attachment to a sport, team, and/or a player in response to conflicting information or experience*”. Subsequently, also influenced by the work of Crosby & Taylor (1983), Pritchard, Havitz & Howard, (1999) operationalized psychological commitment as the tendency to resist changing one's preference based on the desire to maintain cognitive consistency. The common point they emphasise about PC is resistance to change. It refers to “...individuals' unwillingness to change their preferences toward important association with, and/or beliefs about a brand” (Iwasaki & Havits, 2004). Thus, the psychological commitment of fans to a team can be defined as a psychological decision or perception that fixes the fan to a team, and fans resist changing their preferences or attachments to that team in response to conflicting information or experiences.

However, research on the multidimensionality of PC is well established in other fields. O'Reilly & Chatman, (1986) introduced identification, compliance and internalization as three components of organizational commitment. Allen & Meyer (1990, 1996) identified affective commitment, continuance commitment and normative commitment as the three components of organizational commitment. Park (1996, 2000) borrowed Meyer and Allen's three-component conceptualization of commitment and proposed a multidimensional model of attitudinal loyalty applied to adult fitness programs. Introduced three dimensions as affective loyalty, investment loyalty and normative loyalty.

Mahony, Madrigal & Howard, (2000) used the Psychological Commitment to Team (PCT) scale to segment sport consumers based on loyalty. Watanabe & Soebbing (2017) identified fan involvement, product-related attribute associations, non-product-related attribute associations and benefit associations as the four components that influence the psychological commitment of fans of Chinese Super League clubs. Matsouka (2001) developed the fans' psychological commitment to sport teams scale, including five components: personal identity, affective commitment, calculative commitment, social obligation, and regional tribalism. The purpose of this study is to extend the work of Matsouka (2001) to create a scale to examine the psychological commitment of Barcelona fans to the club, in order to make further recommendations and draw management insights for managers.

Psychological commitment plays a very significant role in business, especially in

branding. Rai, Itani, Singh, Singh (2021) aimed to examine the relationship between fans' psychological commitment to team (PCT) with four outcomes to sponsors; namely, cognitive (product knowledge), affective (attitudes towards sponsors) and behavioural (purchase intention) and found that PCT had a significant effect on cognitive and affective outcomes but a negative or no effect on behavioural outcomes. This means that PCT did not work as a motivating factor and failed to change attendees' purchase intentions. When it comes to consumer decisions, consumers are more likely to make these decisions based on their own life experiences rather than being psychologically attached to their team. Yağız (2020) investigated the mediating role of league fan identification on the relationship between league brand association and psychological commitment. Six brand association dimensions were identified. This study also found that league fan identification is a critical psychological connection in the development of psychological commitment of league consumers to a sports league, and a mediator between the brand association of nostalgia, escape, and peer group acceptance and psychological commitment. Sanlav & Dumangöz,(2021) carried out a study aimed to examine the relationship between undergraduates' perceived sports team reputation and their psychological commitment to their teams and to determine whether these two variables were affected by gender, age, department of university, the status of membership to a fan union, and the team the students supported. Based on the results of the study, a positive and significant relationship was found between the variables perceived by university students ( $p < 0.05$ ). These are indicative of the increasing attention being paid to the study of psychological commitment.

Although several scholars have explored the factors influencing fans' psychological commitment, there is still much room for exploration. For example, Tachis & Tzetzis (2015) only discuss the influence of the dimensions 'Attraction', 'Centrality' and 'Self -Expression' on psychological commitment, but not the influence of location, social responsibility, etc. Matsouka (2001) developed a scale of fans' psychological commitment to sports teams but did not apply it in practice.

In this paper, based on previous research by scholars on fans' psychological commitment, six dependent variables and one outcome variable were introduced to explore their effects on fans' psychological commitment, and a conceptual model of fans' psychological commitment of FC Barcelona fans was proposed, considering the daily behaviour of the fans and the characteristics of their favourite teams. (Figure 1)

[Figure 1]

Identification is defined as the "perceived oneness with or belongingness to an organization" of which the person is a member (Bhattacharya, Rao, & Glynn 1995), and a fan who is psychologically committed to a team may have a feeling that he or she is "psychologically intertwined with the fate of the group, as sharing a common destiny and experiencing its successes and failures" (Mael & Ashforth 1992). Mahony (1995) also defines team identification as the "degree to which the fan's relationship with the team

contributes to their social identity”.

In addition, different scholars have also given different approaches to the measurement of personal identity. Pritchard et al. (1999) thought that “values and self-images perceived in any public association with a brand (social self) would be personally evaluated to see if they are truly consistent with the consumer’s internal views (personal self)”. Iwasaki & Havitz (1998) use the label sign to refer to “the unspoken statements that purchase or participation conveys about the person”.

A large part of consumers’ psychological attachment to a product is due to the value of its signs and symbols, so those fans who have a psychological commitment to a sports team are more likely to express their own personal identity, which is often expressed through a sense of belonging and consistency.

This leads to the following hypotheses:

H1: Personal Identity has a positive effect on fans’ psychological commitment.

H1a: Consistency has a positive effect on fans’ psychological commitment.

H1b: Belonging has a positive effect on fans’ psychological commitment.

One of the three components of Allen & Meyer’s (1990, 1996) psychological commitment to an organization mentioned earlier is “affective commitment” which they define as “identification with, involvement in, and emotional attachment to the organization” and they explain employees with strong affective commitment remain with the organization because they want to do so. Heere & Dickson (2008) noted that current marketing research on attitudinal constructs such as commitment and loyalty is characterized by conceptual confusion and overlap. Mahony, Madrigal & Howard (2000) defined “affective commitment” as the strength of fans’ attitudinal loyalty or psychological commitment to a particular sports team and the concept of linking affective commitment to loyalty has also been proposed in previous studies. Dick & Basu (1994) introduced “affective commitment” as one of the basis of relative attitude of customer loyalty. Park (1996) defined affective loyalty as “a psychological attachment caused by an individual’s desire to continue a particular program through affective attachment to an identification with the program”.

In addition, many scholars have highlighted the importance of investigating affective commitment. Mercurio (2015) suggested that attitudinal, affective commitment as a construct is a possible core of organizational commitment and could prove to be an important area of focus for future research and practical application. Kim, James, & Kim (2013) noted that the key drivers of sport consumer behaviours are affective commitment, continuance commitment, and/or normative commitment.

This leads to the following hypothesis:

H2: Affective commitment has a positive effect on fans’ psychological commitment.

Continuance commitment is the second component of Meyer & Allen’s (1997) model of multidimensional organizational commitment and refers to commitment based on employees’ recognition of the cost associated with leaving the organization. “Employees

with strong continuance commitment, then, remain with the organization because they need to” (Allen & Meyer, 1996). Mathieu & Zajac (1990) also named continuance commitment as calculative commitment. Matsouka (2001) defines calculative commitment first as one of five dimensions, but after his research study he divided calculative commitment into two dimensions, one being resource cost and the other being psychological cost, and this paper continues this final approach. Mathieu & Zajac (1990) defined calculative commitment as “commitment based on the employees’ recognition of the cost associated with leaving the organization”. Suliman & Iles (2000) refers to continuance commitment as a sense of commitment out of a sense of perceiving few alternatives or options or due to a feeling that the sacrifices involved in leaving would outweigh the benefits. The majority of scholars agree that continuance commitment stems from two sources—personal sacrifice, including switching costs and sunk costs, and lack of alternatives (McGee & Ford, 1987; Meyer & Allen, 1997; Iverson & Buttigieg, 1999). Moreover, Khan, Bashir, Nasim & Ahmad (2021) suggest that continuance commitment antecedents arise from two sources: alternatives and investment. Investment sources include invested time, invested money, and invested effort that employees spend with the passage of time and during their job tenure. They also explained that employees with strong continuance commitment think in terms of these investments before leaving that they have made in the organization.

Hirota (2001) showed that calculative commitment could be split into two separate costs - resource and psychological. As defined by him, resources costs refer to monetary expenditures as well as investments of one’s time and effort in support of the team, while psychological costs refer to what the individual feels internally. Before that, he defined calculative commitment as a commitment based on the monetary and psychological costs of leaving the team. He demonstrated through his research that the six-component model with two kinds of costs was appropriate. The scale was named Scale of Psychological Commitment to Sport Team (SPCST).

Thompson & Cats-Baril (2002) describe switching costs as “the costs of switching suppliers”, while Farrell & Klempner (2007) write that “a buyer faces a switching cost between sellers when a new seller has to repeat an investment unique to his current seller”. Switching costs refers to the monetary and psychological costs involved in switching from one service provider to another (Porter, 1980; de Ruyter, Wetzels, & Bloemer, 1998). They explain that consumers tend to be more loyal before facing a service industry with high switching costs than a service industry with low switching costs, and that a characteristic of a service industry with high switching costs is that it has fewer competitors, so it is reasonable to infer that sports teams have higher switching costs because there is a small number of elite sports teams.

In economics and business decision-making, a sunk cost (also known as retrospective cost) is a cost that has already been incurred and cannot be recovered. Sunk cost investment makes investors think more about what they are paying for . Evidence that

the psychological justification for this behaviour is predicated on the desire not to appear wasteful was presented. In a field study by Arkes & Blumer (1985), customers who had initially paid more for a season subscription to a theatre series attended more plays during the next 6 months, presumably because of their higher sunk cost in the season tickets. Similarly, in sports, one of the reasons why fans continue to watch games or to be fans of a sports team is that they buy the season tickets of their club or sports team and their behaviour is related to not wanting to waste them.

Someone who is a fan of a sports team or club can invest in it both in terms of resources, that is, resources such as money and time invested, and in terms of psychological costs, that is, attachment and love for the team, with the corresponding commitment to a team also being a psychological investment. On the other hand, if a fan can maintain a close relationship or some psychological commitment to a team, it is because he or she has invested in this commitment, both in terms of money and psychologically. The size of the psychological investment is often proportional to the amount of time and effort one spends on commitment to the team.

This leads to the following hypothesis:

H3: Resource costs have a positive impact on fans' psychological commitment.

H4: Psychological cost has a positive effect on fans' psychological commitment.

Normative commitment is the third component of organisational commitment proposed by Meyer & Allen (1991, 1997), which refers to "commitment based on a sense of obligation to the organization". Matsouka (2001) in his study labels normative commitment as social responsibility. Park (1996) defined normative loyalty as "a participant's awareness of social expectation or normative pressure from significant or relevant others". Although there is no common definition of normative commitment, Meyer & Allen (1991) noted that they reflected a common theme of obligation. Given a general agreement that this sense of obligation derives from the internalization of normative influences, they adopted the term "normative commitment" (Meyer & Parfyonova, 2010). The normative commitment also applies team supporters, where a fan may be willing to support the same team because his or her family and friends all support that team. For example, if you are a fan of FC Barcelona it is partly because your family or friends are also fans of the team. Koch & Wann (2013) found that socialized fans reported higher levels of social obligation and regional tribalism to their teams than self-selected fans. In addition, Kahle, Kambara, & Rose (1996) suggested that obligation is one of the critical motivational factors for fan attendance.

This leads to the following hypothesis:

H5: Social obligation has a positive effect on the psychological commitment of fans.

The origins of football clubs are imbued with regional symbolism. Giulianotti (1999) suggested that the earliest football matches were played between different communities and a large number of clubs were founded with the name of the region added to the club name to express their identity as representatives of their community. This geographical and historical

significance made them representative of their community and few clubs were willing to change the location of the stadium which was important to their heritage. In addition to the fact that football culture is taught to the individual in the community as a child, the community service of the local club and the regional symbolic football atmosphere created by family and friends in the community leave a lasting impression on children as they grow up, and Jones (1997) found that British fans chose their favourite club primarily on the basis of the city club in which they now live and the city club in which the fan originally lived.

Wakefield & Sloan (1995) suggest that any community activity that increases opportunities for player and spectator contact has the potential to increase team loyalty. Accordingly, the community's contribution to the club is significant. For one thing, the spending of community fans is an important component of club sales, with local fan facilities such as fan restaurants and movie theatres being a major destination of fans from the local community. Edensor's (2008) research shows that arenas and training facilities are fixed assets and that the support of local fans determines the club's weekly income. Secondly, although there are fans who travel from out of town to watch the club play at home, majority of fans are still local, creating the atmosphere at the ground and dominating the culture in the stands. This means that the club's connection to the community not only brings life and psychological satisfaction to fans, but the process also allows the club to gain long-term momentum through fan support.

This leads to the following hypothesis:

H6: Regional tribalism has a positive effect on fans' psychological commitment.

H6a: Regional identity has a positive effect on fans' psychological commitment.

H6b: Regional glory has a positive effect on fans' psychological commitment.

## **MATERIALS AND METHODS**

### **Focus group**

In order to carry out our research and also to obtain the characteristics of the FC Barcelona public, it was decided to conduct focus groups designed to identify the factors that influence the psychological commitment of FC Barcelona fans.

The questions of the questionnaire were open-ended and there were no specific options to choose from. The participants were asked about the frequency of their participation in sports activities, the teams they support, the frequency of attending matches on site and various factors that would influence their heart commitment towards their favourite team.

The questionnaire was administered at the Faculty of Economics and Business of the University of Barcelona, which has the highest number of young people in Barcelona and the highest percentage of people who participate in sports. The questionnaire was distributed on April 1<sup>st</sup>, 2022 at 9 am in front of the Faculty, where we explained the participants who we were and the purpose of the study and gave them the instructions for completing the

questionnaire. With the help of the students of the Faculty we managed to collect 67 valid questionnaires at 15:00 on April 1<sup>st</sup> 2022 from the Barcelona area and the surrounding towns. Among them, 36 individuals (18 males and 18 females) were interviewed in depth. These 36 individuals (18 males and 18 females) claimed to be fans of FC Barcelona, to play sports at least twice a week (with most of the males playing sports more than 4 times a week) and to attend Barcelona matches at a frequency of once or twice a month, regardless of the price of the tickets, the time of the day or the opponent.

Finally, they also provided us with some information about what would influence them to quit being fans of the club in addition to affecting their heart commitment.

Based on the findings of the focus groups and previous research studies, six motivations were extracted from this study, which are personal identity, perfect commitment, resource cost, psychological cost, social obligation and regional tribalism.

### **Scale development**

The items for each factor were generated from previous scales. In addition to personal identity (6 items) and regional tribalism (6 items), emotional commitment, resource cost, psychological cost and social obligation each included 4 items while psychological commitment included 3 items. Each of the 7 dimensions was assessed on a 7-point Likert scale (1=strongly disagree, 7=strongly agree).

### **Instrument**

For the purpose of the study, a small survey was first conducted in advance at Barcelona's home stadium, the Camp Nou. A total of 20 Barcelona fans (10 males and 10 females) were selected for the survey before the match on March 13<sup>th</sup>, 2022 (Barcelona vs. Osasuna), and the main sections of the survey were "demographic information", "experience", "psychological commitment" and "intention to continue following the team in the future".

In the demographic section, participants were asked to provide their personal information, such as gender, age, educational background and income.

For the purposes of this study, experience refers to spectators' past attendance and sports experience. The participants were asked if they were fans of FC Barcelona, if they had experience playing football, the type of tickets they used to buy and the travel time from their home to the stadium.

Next, participants were asked about how often they had watched football in the past, including attendance at home games, how often they watched games on TV, how often they talked to friends about club information, how much they spent for the team both monetarily and mentally, their own feelings about the team and the team's place in their hearts, etc.

Finally, they were asked if they would continue to follow the team as fans, how likely they were to continue watching the team live or on television, what factors influence their psychological commitment to the team and what could influence them to quit their status as



Barça fans.

## Participants and data collection

The data was collected outside each stadium before the matches on April 3<sup>rd</sup>, 2022 (Barcelona vs. Seville) and April 18<sup>th</sup>, 2022 (Barcelona vs. Cádiz). For each match, eight friends of the authors helped them distribute the questionnaire together. They were informed of the purpose of data collection and trained to distribute and collect the questionnaires. Only ticket holders and fans wearing the Barcelona jersey were targeted to participate. During the first match, 134 questionnaires were distributed and 109 (81.3%) of them were collected; 120 questionnaires were distributed during the second match and 102 (85.0%) of them were returned. In total, 254 questionnaires were collected for the two matches and 211 (83.1%) of them were fully completed. This procedure yielded a final sample of 211 valid respondents.

## RESULTS

After data collection, the 211 valid questionnaires were collated via Excel and demographic analysis was carried out using SPSS 27.0 on seven items of basic information about the participants such as gender, age, education level, monthly income, length of time as a Barça fan, whether they hold a season ticket and frequency of playing football (Table 1).

[Table 1]

In this paper, based on the scale and questionnaire data, a 7-point Likert scale was used, and the corresponding scores were assigned, followed by descriptive statistical analysis of the seven specific dimensions, that is, personal identity, affective commitment, resources cost, psychological cost, social obligation, regional tribalism and psychological commitment (Table 2).

[Table 2]

After the statistical analysis, the data show that the mean values of each dimension ranges from 4.0 to 6.0, with the three variables personal of identity, affective commitment and psychological cost having a mean value greater than 5.3 or more; the three variables of cost of resources, regional tribalism and psychological commitment having a mean value of about 4.9 to 5.0; being the mean value of the social obligation the lowest among the variables, but also above 4.0. The data indicators for each dimension are within reasonable limits, in line with the reference standards.

Good reliability is the basis for further data analysis. The most common type of reliability analysis is the alpha coefficient, which is the internal consistency coefficient. For this, SPSS was used to calculate the Cronbach's alpha coefficient and used this value to determine whether the confidence level was within the required range.

If the data collected has low confidence, it means that the survey results are not

reliable, the data is not stable, and the reliability is low. In this case, it is difficult to obtain precise empirical findings to validate the conceptual models and related hypotheses. Therefore, good reliability ensures the quality of the data collected and is the basis for further statistical analysis.

The Cronbach's Alpha for the overall questionnaire was 0.907 and the Cronbach's Alpha based on standardized items was 0.926, indicating that the overall reliability rating of the questionnaire was excellent, and data reliability was fully achieved. Subsequently, the authors also conducted reliability tests on the seven dimensions of the questionnaire and the results of each dimension (Table 3).

[Table 3]

The results from the data in the table above show that the Cronbach's Alpha coefficients for the specific dimensions of all the independent and outcome variables are within the desired range. With the exception of the dimension "social obligation", the Cronbach's Alpha coefficients for all dimensions are above 0.8, which is a very good confidence level. The Cronbach's Alpha coefficients for "social obligation" also ranged from 0.7 to 0.8, with good consistency. The results of the reliability test indicate that the overall reliability and reliability of each and every one of the dimensions are good, thus reflecting the good consistency of the questionnaire items, and that they are ready for further empirical analysis.

Currently, validity measures commonly used in academia focus on both content validity and construct validity. The scales used in this study are based on established scales from existing research, and in addition, no significant problems were found in the analysis of the results of a small pre-test carried out before the questionnaire was formally administered. Furthermore, no significant problems were found in the analysis of the results of the small-scale pre-experiment conducted prior to the formal administration of the questionnaire, and therefore the content validity was relatively reliable.

Structural validity can be tested through convergent validity. In this study, after constructing a theoretical model of the psychological commitment of FC Barcelona fans and formulating relevant hypotheses, the data was analysed by validated factor analysis (CFA) (Table 4).

[Table 4]

From the above table, it can be seen that factor loadings for two "social obligation" items, "My attachment to the team is based on a sense of social obligation" and "I am a fan of the team because my friends and/or family members expect me to, are 0.365 and 0.407 respectively, but we must bear in mind that the coefficients for these two questions are probably low because they are reverse questions. However, the coefficients for all the other variables were greater than 0.5, and the combined reliability (CR) for all variables except "social obligation" was greater than 0.8; the average variance extracted (AVE) was greater than 0.5, thus meeting the three criteria for determining convergent validity (Fornell

& Lacker, 1981). Therefore, the variables in this paper have good convergent validity. Figure 2 shows the structural equation model designed in AMOS.

[Figure 2]

In terms of discriminant validity, the data shows that the correlation coefficients for all variables ranged from -0.137 to 0.690, except for the correlation coefficients obtained for “Affective Commitment” and “Psychological Commitment” (0.732). This indicates that the discriminant validity of the variables measured in this study is good and suitable for further analysis (Table 5).

[Table 5]

### **The effects of control variables: T-test and variance test**

In order to measure the effects of control variables such as demographic variables on other variables, t-tests and variance tests were used to examine the effects of seven control variables such as gender, age, education, income, time being a Barça fan, season ticket ownership and frequency of playing football on other variables.

The effects of gender on the other variables, the two-sided significance of gender for Psychological Commitment, Personal Identity, Resources Cost and Social Obligation was less than 0.05 and the two-sided significance of gender for all other variables was greater than 0.05, so there was a significant difference in the effect of gender on the four variables of Psychological Commitment, Personal Identity, Resources Cost and Social Obligation.

When studying the effect of education on the other variables, it is clear from the table that the level of significance is greater than 0.05 for all the variables except for Regional Tribalism, so we can conclude that education has a significant effect on the geography variable and no significant difference in the effect on the other six variables. It may be fans who choose to support Barça went to university or graduate school in the Barcelona area, which makes their connection with Barça stronger.

Analysing the effect of income on the other variables, it is clear from the table that the level of significance of income is less than 0.05 for all variables except for Regional Tribalism, so we can conclude that there is a significant difference in the effect of income on several other variables.

When testing the effect of length of time as a Barça fan on the other variables, as can be seen from the table, the level of significance of length of time as a Barça fan on all variables is less than 0.05, so we can conclude that there is a significant difference in the effect of time on these variables. Length of time as a Barça fan is a key factor influencing the psychological commitment of fans.

The two-sided significance of having a season ticket is greater than 0.05 for Regional Tribalism and less than 0.05 for all other variables, so there is a significant difference in the effect of having a season ticket on all the remaining variables, except for Regional Tribalism.

When testing the effect of playing experience on the other variables, it is clear from

the table that the level of significance is greater than 0.05 for all the variables except for Regional Tribalism, so we can conclude that playing experience has a significant effect on the geography variable and no significant difference in the effect on the other six variables.

[Figure 3]

From Figure 3 we can see that Personal Identity, Psychological Cost, Affective Commitment and Resource Costs have a significant effect on Psychological Commitment ( $PI \rightarrow W = .589$ ,  $PC \rightarrow W = .551$ ,  $AC \rightarrow W = .732$ ,  $RC \rightarrow W = .508$ ,  $p = *** < .001$ ), thus supporting H1, H2, H3 and H4. However, the impact of Social Obligation on Psychological Commitment was insignificant ( $SO \rightarrow PC = -.137$ ,  $p = .050$ ), and therefore H5 was not supported. Moreover, the impact of RT on PC was also insignificant ( $RT \rightarrow PC = .049$ ,  $p = .476$ ), and therefore H6 was not supported (table 6).

[Table 6]

Based on the empirical analysis in this chapter, this paper completes the investigation of the factors influencing the psychological commitment of Barcelona FC fans. The empirical analysis is divided into two main parts: first, t-tests and variance tests are conducted on the control variables, and the results show that the four variables of income, length of time as a fan, season ticket ownership and frequency of playing football have a significant effect on the other variables. The research hypothesis was then analysed by regression, with the effect of social obligation being insignificant and the other dimensions having a significant and positive effect on psychological commitment.

## DISCUSSION

FC Barcelona's strong fan base is made up of supporters who have been fans of the team for many years, the vast majority of them being locals or people who studied in Barcelona. Most say they will continue to support Barcelona, regardless of the team's level of performance and success. The affective commitment of FC Barcelona fans to the team is the highest of the six dimensions, followed by psychological cost, personal identity, resource cost and regional tribalism, with social obligation being the lowest.

The personal identity of the fans has a positive impact on psychological commitment, especially in terms of consistency, as the fans gradually integrate themselves with the team, sharing both honour and disgrace, and feeling the same way whether the team is praised or criticized by others. Carron, Bray & Eys (2002) indicated a strong relationship between cohesion and success in a sports team. Wann, Hackathorn & Sherman (2017) showed that belonging mediated the relationship between identification and meaning in life. In addition, belonging also mediated the relationship between fandom and meaning in life. In terms of belonging, however, there is no positive effect on psychological commitment, probably because most fans are still sensible enough to separate their lives from their football team and not intermingle the two very much.

The affective commitment of fans has a strong positive impact on psychological commitment. Represents the fans' love and affection for this team, and when the affection reaches a certain level, this affection for the team translates into love for the team, which is a difficult emotion to get rid of. Evanschitzky, Iyer, Plassmann, Niessing & Meffert (2006) suggested that the fact of being emotionally bonded with customers provides a more enduring source of loyalty as compared to economic incentives and switching costs. Therefore, fans with high affective commitment tend to have a strong psychological commitment to the team.

The resource cost of fans has a positive effect on psychological commitment, and in the case of more rational fans they will calculate if they are getting out of the team what they put into it, in other words, if the team is worth the money, the time and emotion that they put into it. Of course, some fanatics don't think about whether they are getting something in return for their investment, they just give everything to the team.

The psychological cost of being a fan also has a positive impact on psychological commitment, as fans consider the perceptions of those around them, the emotional cost of giving up their commitment and the fact that in this age of online information people can express their support or love for their team through various social media. Social pressure must be taken into account if fans want to give up their fan status.

The social obligations of fans do not have a positive effect on psychological commitment, but in some ways, it does affect it. Fans are often reluctant to admit that they have been forced by others to be a part of a team, although this may be true, thus creating a dilution of this aspect of social obligation on the part of fans. They are less likely to want to feel that this is socially required of them and obligatory, preferring to believe that they are independent individuals who have the right to make their own choices.

The regional tribalism of fans has a positive effect on psychological commitment. Meir (2009) suggested that tribalism is an axiomatic characteristic of sport consumerism. Generally speaking, the main makeup of the home team's fan base remains local, as this is likely to be a tradition that has been carried on for generations, with fans being taken to matches by their fathers at a very young age and, over time, becoming fans of the team. Especially in a region as distinctive as Catalonia, FC Barcelona fans often have a special and irreplaceable bond with Catalonia.

Finally, the reasons behind fans' psychological commitment are multiple and complex and this study shows that a combination of factors such as fans' personal identity, affective commitment, resource costs and psychological costs come together to build such psychological commitment. The above factors provide theoretical and empirical evidence for improving club service quality and fan loyalty levels.

## **Insights and implications**

The success of a team is based on several factors, so not only the fans themselves

play an important role, but the role of society and the region, as well as the people around them, is also indispensable. Many clubs consider team performance to be the most important goal, but according to the results of this study, fan identification and local character have a very high explanatory power and significance on the psychological commitment of fans, which suggests that to be commercially successful, clubs should focus on creating the personality of the team to match the personality of the fans. Furthermore, clubs should focus on creating a local element to make the team a source of pride for their city or province. Rhoades, Eisenberger & Armeli (2001) indicated that increasing affective commitment could decrease employee withdrawal behaviour. Fan recognition is an important resource for the team. If the team is recognized by the fans, attendance at matches will increase, sales of related products will increase and, ultimately, the team's profits will increase. Strengthening a team's fan base is therefore one of the rules of survival. People tend to feel affinity with people who are from the same place as them, so fans tend to focus on the team from their hometown, or from the place where they have studied or worked, which subsequently brings related purchases. Clubs should consider creating spaces for fan interaction outside the stadium, such as fan bars and restaurants, where fans can form some kind of branded community, which will strengthen their identity and loyalty. Teams should increase their interaction with local fans, for example by organizing youth football training sessions or amateur leagues, and placing large club advertisements in airports, train, and metro stations to increase the club's presence in the city. In terms of player trading, while we have to understand that clubs have to trade important players due to various issues such as salary cap, the forced trading of players who have been branded with the club or the team is likely to be accompanied by a massive loss of fans, as opposed to the change of team by the players themselves, since the fans become dissatisfied with the management of the club and follow the star player to the next team he plays for.

Fan time has a profound effect on the psychological commitment of fans, with highly engaged fans spending more of their time following the team, attending games more frequently, and being willing to pay more for the team's products. This is a very important segment for team supporters who watch and participate in games. The more often fans go to a game, the more fun they will find watching it. Other fans see the activities surrounding the team as an important part of their lives and personality formation, and fan identity is an important label for them when the team's particular label, personality, or characteristics shape or change their personality. Symbolic fans have a high level of fan identification. For this type of fans, the club should guide the design of a personality associated with the team logo and at the same time create the personality and identity of the team and link the team logo to the fan symbol to promote the sale of products.

In addition, the club should also focus on effective communication with the spectators at the venue, in particular by giving them an integrated role as spectators of the game in the stands and as a major force in shaping the atmosphere at home, which is an important

part of the quality of the game. In terms of communication and advertising, the club can use outdoor advertising, guide advertising for home game attendees, and showcase the team at sports games. The above measures can be used to increase exposure or stimulate attendance to drive fans through the club's brand. In order to increase fan engagement, clubs must increase their interaction with fans. Teams must also maintain and increase the level of engagement of their fan base via the Internet. A fan chat room should be set up on the team's official website or official forum, where players or coaches can interact with fans on a rotating basis, creating a branded community and allowing fans to meet members of the team. The club can also use Twitter and Instagram to regularly post and update topics, team stories, team news and even internal news to increase fan following frequency and increase fan engagement through interaction.

Psychological commitment is often reflected in attitude. The importance of attitude reflects the importance and value fans place on the teams they follow. Cognitive structure is another key factor in a fan's attitude, whose level of knowledge and ability to perceive different aspects of the team determines whether or not they have a positive attitude towards the team. Thus, strengthening and stimulating the cognitive level of fans will help to increase their overall approval of the team. It also determines if a fan is a true loyal supporter of a team. Therefore, a deeper understanding and respect for the subjective beliefs of the fans will help increase their acceptance of the team and achieve a positive attitude from them.

As psychological commitment and loyalty are inextricably linked as one element, psychological commitment affects loyalty to some extent; how exactly, and whether this is a positive or negative effect, remains to be found out in future research..

Furthermore, the study of fans' psychological commitment should be integrated with the local cultural context. The formation of culture is inseparable from regional identity, and the interweaving of fan culture with local traditional and regional culture makes fan culture have local regional characteristics and regional cultural elements, both of them being important for the formation of the cultural characteristics of each country and region. The Catalan football scene is one of the best in the world, so more detailed data and research is needed to study the culture thoroughly.

## **Limitations**

It was decided that the questionnaires would be distributed before fans entered the stadium due to the high cost of tickets to watch the match. All questionnaires for this study were distributed at the Barça event and collected on site. Furthermore, during the questionnaire distribution process, it was observed that, in general, students were more willing to complete the questionnaire, while middle-aged fans were less enthusiastic about doing so. This can also lead to uneven sample size and bias in the results.

All the scales in this study are based on previous studies, and the scientific accuracy of the design of the scales can be guaranteed, but they lack innovation in terms of the

dimensions of the composition of fans' psychological commitment. To which must be added the theoretical view that the reasons for the formation of the psychological commitment of fans are complex and multiple, with existing studies confirming that the formation of psychological commitment of fans is related to fan identity, geographical identity, affective commitment recognition, etc. Therefore, finding out what other factors can influence the psychological commitment of fans is also a direction for future research.

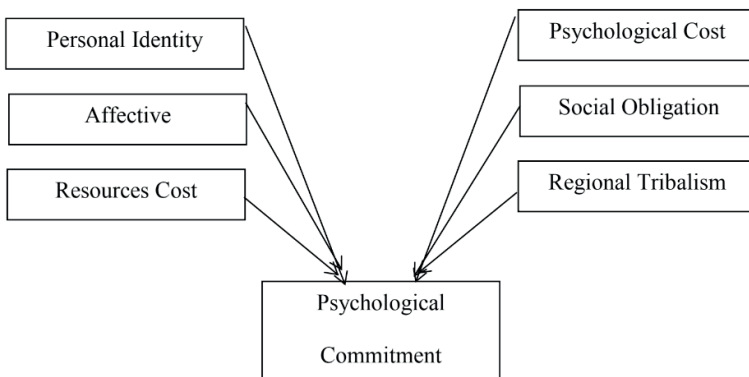


Figure 1. Conceptual model of fans' psychological commitment at FC Barcelona

Source: Own elaboration



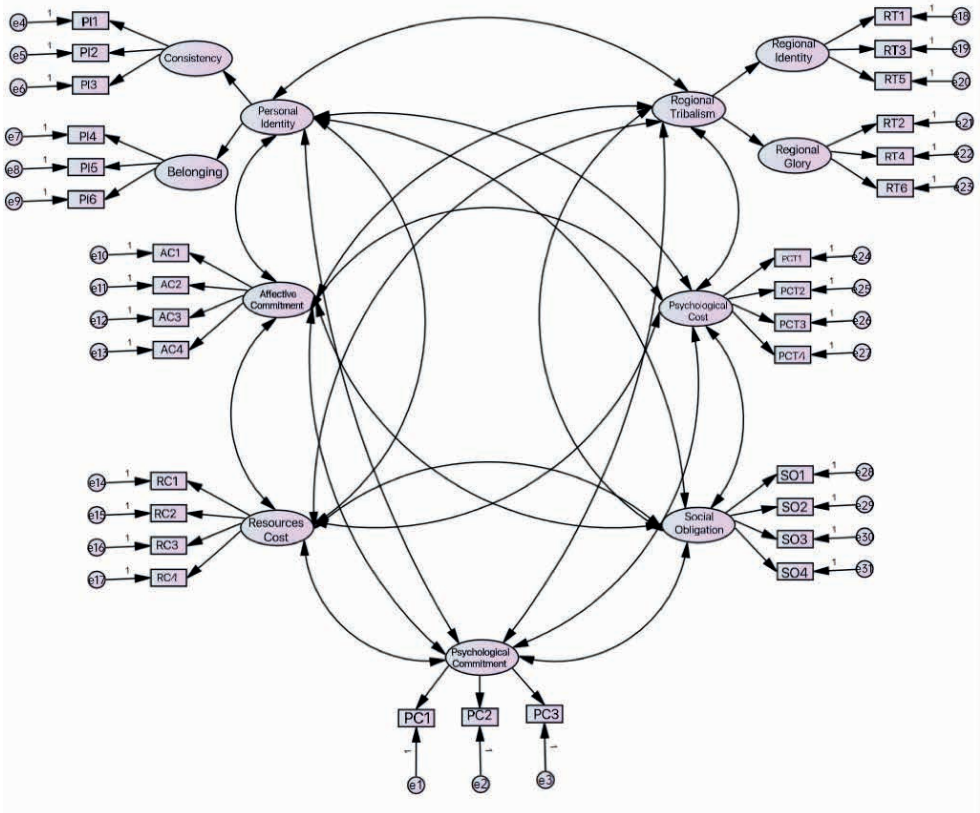


Figure 2. Structural equation model

Source: Own elaboration

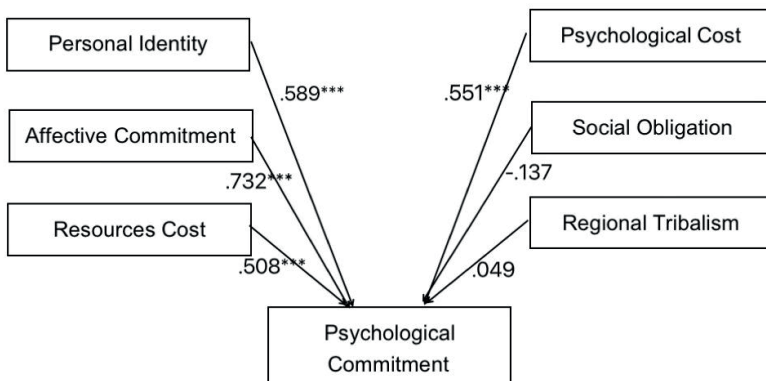


Figure 3. Standardized coefficients of the structural model

Variable	Categories	n	%
Gender	Male	166	78.7
	Female	45	21.3
Age(M=38.17)	18~28	41	19.4
	29~39	96	45.6
	40~50	44	20.1
	51~61	13	6.2
	62 or more	17	8.7
Education	Middle School	6	2.8
	High School	31	14.7
	Bachelor	116	55.0
	Master	39	18.5
	Doctor	19	9.0
Income (1 month)	0~999 euros	9	4.3
	1,000~1,999 euros	24	11.4
	2,000~2,999 euros	78	37.0
	3,000~3,999 euros	51	24.2
	4,000 euros or more	49	23.1
Time when became a Barça fan	Less than 1 year ago	12	5.7
	1~3 years	13	6.2
	3~5 years	18	8.5
	5~10 years	25	11.8
	More than 10 years ago	143	67.8
Own a season ticket	Yes	85	40.3
	No	126	59.7
Playing experience	Usually play football nowadays	71	33.6
	Used to play football	73	34.6
	Only play football sometimes	26	12.3
	Never play football	41	19.5

Table 1. Descriptive distribution of the sample

Variables	Items	Mean	Std. Deviation
Personal Identity	6	5.3112	0.85421
Affective Commitment	4	5.9893	0.76893
Resources Cost	4	5.0853	0.99783
Psychological Cost	4	5.5296	0.86115
Social Obligation	4	4.2784	1.01789
Regional Tribalism	6	4.9945	1.98689
Psychological Commitment	3	5.0395	1.07251

Table 2. Mean and standard deviation of the dimension

Variable type	Specific dimensions	N of Items	Cronbach's Alpha	Reference values
Independent variables	Personal Identity	6	0.914	>0.9
	Affective Commitment	4	0.891	0.80-0.89
	Resources Cost	4	0.872	0.80-0.89
	Psychological Cost	4	0.875	0.80-0.89
	Social Obligation	4	0.742	0.70-0.79
	Regional Tribalism	6	0.976	>0.9
Outcome variables	Psychological Commitment	3	0.943	>0.9

Table 3. Results of the confidence test for each variable

Variables	Measurement items	Factor Loadings	CR	AVE
Personal Identity	When someone criticizes the team, it feels like a personal insult.	0.729	0.915	0.645
	The team's successes are my successes.	0.795		
	When someone praises the team, it feels like a personal compliment.	0.757		
	I get upset when the media blame the team.	0.739		
	In general, belonging to the team is an important part of myself.	0.887		
	The team is an important reflection of who I am.	0.895		
Affective Commitment	I really love the team.	0.879	0.892	0.674
	I have a strong affection for the team.	0.830		
	I am a devoted fan of the team.	0.820		
	I am glad to be a fan of the team.	0.750		
Resources Cost	I would not quit being a fan of the team because I have invested so much money to express my attachment to the team.	0.772	0.876	0.641
	I have invested so much time and energy to support the team that I cannot quit now.	0.721		
	Too much of my life would be disrupted if I stopped being a fan of the team.	0.800		
	It would be troublesome to switch my commitment to another team.	0.898		
Psychological Cost	It would be psychologically hard to switch my attachment to another team.	0.841	0.877	0.641
	It would be very stressful for me to openly discontinue my association with the team.	0.817		
	I would not quit being a fan of the team because I have openly expressed my commitment to the team.	0.699		
	I continue to be a fan of the team because I have already put so much of myself into the team.	0.837		

Social Obligation	My attachment to the team is based on a sense of social obligation.	0.365	0.689	0.383
	I am a fan of the team because my friends and/or family members expect me to.	0.407		
	I would not quit being a fan of the team because of my sense of obligation to the other fans.	0.725		
	I am a fan of the team because it is the right thing to do.	0.840		
Regional Tribalism	I am a fan of the team because it represents my hometown or university well.	0.946	0.976	0.874
	Supporting the team helps me to express my pride in my hometown or university.	0.937		
	I am a fan of the team because it is an important connection between me and my hometown or university.	0.920		
	I continue to be a fan of the team because of my allegiance to my hometown or university.	0.936		
	I am a fan of the team because it is symbolic of my hometown or university.	0.933		
	I support the team because it is located in my hometown or university.	0.936		
Psychological Commitment	I feel a deep and intrinsic attachment to my favourite club, which has remained constant over time.	0.955	0.944	0.849
	I think I have a strong psychological commitment to the team.	0.896		
	Loyalty to the team will not diminish even if there is a long-term decline in the team's athleticism and performance on the field.	0.912		

Table 4. Results of the validity test for each variable

		PI	AC	RC	PC	SO	RT	W
PI	Pearson Correlation	--						
	N	211						
AC	Pearson Correlation	0.604	--					
	Sig. (2-tailed)							
	N	211	211					
RC	Pearson Correlation	0.690	0.507	--				
	Sig. (2-tailed)							
	N	211	211	211				
PC	Pearson Correlation	0.668	0.574	0.685	--			
	Sig. (2-tailed)							
	N	211	211	211	211			
SO	Pearson Correlation	0.040	-0.121	0.245	0.000	--		
	Sig. (2-tailed)							
	N	211	211	211	211	211		

	Pearson Correlation	0.098	0.127	0.097	0.183	0.044	--
RT	Sig. (2-tailed)						
	N	211	211	211	211	211	211
	Pearson Correlation	0.589	0.732	0.508	0.551	-0.137	0.049
W	Sig. (2-tailed)						
	N	211	211	211	211	211	211

Table 5. Pearson Correlations

Path	Standardized coefficient	Unstandardized coefficient	S.E.	C.R.	P	Hypothesis testing results
H1	.589	.537	.073	7.353	***	Yes
H2	.551	.506	.072	6.989	***	Yes
H3	.732	.601	.070	8.559	***	Yes
H4	.508	.541	.082	6.565	***	Yes
H5	-.137	-.148	.076	-1.962	.050	No
H6	.049	.104	.147	.713	.476	No

Table 6. Results of the structural mode