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Exploring fitness centre consumer loyalty: differences of non-profit and low-cost business models in Spain

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ABSTRACT

A number of studies have placed at the forefront variables that predict the loyalty of clients in fitness centres. In fact, no study has analysed the differences between these variables according to business models. The objective of this study was to analyse the relationship between quality, value, satisfaction and the future intentions of clients of public and private low-cost fitness centres and their differences. A questionnaire was administered to a sample of 1805 fitness centre clients. A confirmatory factor analysis and multi-group analysis was performed to test the difference between two invariance models. The findings indicate a greater weight in facilities and employees of the quality perceived from private low-cost fitness centres and a greater weight in programmes from public fitness centres. Furthermore, the relationship between the variables' overall quality, perceived value, satisfaction and future intentions had a greater influence in private low-cost fitness centres than in public centres.

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1. Introduction

According to the International Health, Racquet & Sportsclub Association (I.H.R.S.A.) (2016), the fitness industry continues to boom. In Europe the number of participants and the number of facilities continues to grow (I.H.R.S.A., 2016). Specifically, in Spain, growth in sports participation is becoming increasingly evident as participation has grown considerably in the past years (European Commission, 2014). This growth has been brought about by the increase of sports and physical activity promotion in public and private entities favouring a higher rate of physical activity (Clavel, Iglesias-Soler, Gallardo, Rodriguez-Cañamero, & García-Unanue, 2017). In the case of the public offer in Spain, the main managers are the local entities (town councils) that reserve in their urban planning plans pieces of land necessary for the construction and management of sports facilities. Their main objective is to develop sports promotion

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programmes (Consejo Superior de Deporte, 2017). While it is true that local authorities invest in increasing sports, investment by the state has declined in recent years (Ministerio de Educación, Cultura y Deporte, 2017) and this situation could have an impact on the consumers' perception of sports facilities. In relation to the private offer, the great growth of low-cost fitness centres in Europe (Europe Active, 2015, Powers & Greenwell, 2016) and in Spain (Valcarce, López, & García-Fernández, 2017) should be noted. Characteristics defining these low-cost fitness centres include: the ability to operate the entire club with a single person as staff; a gym-only proposition; heavy technology and web use; a price point set at a minimum of 50% lower than the industry average; and a facilities design which is very well cared for (Algar, 2011; García-Fernández et al., 2017a). Although the price offered by this new model of sports business is competitive, the type of sports offer and the number of staff that work for the client is limited and, consequently, could have an impact on customer loyalty. Therefore, the main characteristics that differentiate both models in Spain are, on the one hand, the variety of services that they offer (more sports programmes in public fitness centres), the price and the number of people working (in both cases less than in low-cost fitness centres) and the design of the sports facility (more cared for in low-cost fitness centres). Thus, although there is an increase in participants in public and private fitness centres (European Commission, 2014; I.H.R.S.A., 2016), different studies have revealed a lack of customer loyalty (e.g., Clavel et al., 2017; García-Fernández, Gálvez-Ruíz, Fernández-Gavira, & Vélez-Colon, 2016; MacIntosh & Law, 2015), which makes it a highly important variable to analyse (García-Feranández, Bernal-García, Fernández-Gavira, & Vélez-Colon, 2014). In fact, in both public facilities (whose objective is to develop sports programmes) and private sports facilities (whose aim is economic gain), customer loyalty is paramount for clients to continue practising sports and this results in a greater economic benefit (Reichheld, 1996). This situation reflects the need to study client loyalty and the variables which influence client behaviour (García-Fernández et al., 2014).

Among the variables analysed in the fitness sector, quality and satisfaction stand out for their strong relationship with future intentions (García-Fernández, Gálvez-Ruiz, Vélez-Colon, & Bernal-García, 2017b; Polyakova & Mirza, 2016). Furthermore, the recent literature on sports management demonstrates an increased interest in the analysis of perceived value as a decisive variable for client loyalty to a sports organisation (Calabuig, Prado-Gascó, Crespo, Núñez-Pomar, & Añó, 2016; García-Fernández et al., 2017a). For this reason, the study of quality, perceived value and satisfaction are important to managers of both public and private fitness centres, in order to understand client perceptions and establish corrective actions.

Although customer loyalty in both sports organisations should be a priority (Clavel et al., 2017), the inherent characteristics of each organisational model could have an impact on the final behaviour of the sports user. For this reason, the analysis of how quality, perceived value and satisfaction are related to fidelity in each type of fitness centre would help the managers of these organisations to contemplate the most specific actions to be implemented. In this way, the objective of this study was to analyse the relationship between quality, value, satisfaction and the future intentions of clients of public and private low-cost fitness centres and their differences. The study analyses causal relationships in clients according to the business model of a public or private low-cost fitness centre. The main contribution of this paper is to analyse two different business models in the fitness industry through a multi-group analysis. Also, due to limited research on the emerging low-cost fitness centres, another contribution of this work is to find out how the variables mentioned above influence the

behaviour of this new sports consumer, contributing knowledge to the literature in sports management. Similarly, although there are a wide variety of studies that analyse fidelity models in different sectors, the sports management literature does not have studies that verify the relationships between the variables proposed.

The article is organised as follows. Section 2 focuses on the relevant literature concerning perceived quality, perceived value, satisfaction and future intentions. Likewise, the hypotheses are proposed. Section 3 explains the methodology. Section 4 presents the results of the study. Section 5 provides the discussion and conclusions.

2. Theoretical background and hypotheses

2.1. Perceived quality of fitness centres and its relationship with client value and satisfaction

Zeithaml (1988) defines perceived quality as a global judgement or attitude relative to the superiority of a service. In the fitness industry, perceived quality has been one of the most studied variables emerging from the decade of the 1980s, yet there has not been an agreement on the dimensions about its composition (Polyakova & Mirza, 2016). There are a variety of tools that have been employed in an effort to study quality. Chelladurai, Scott, and Haywood-Farmer (1987) were pioneers in analysing quality with the Scale of Attributes of Fitness Services (S.A.F.S.), previously developed in the Scale of Quality in Fitness Services (S.Q.F.S.) by Chang and Chelladurai (2003). Kim and Kim (1995) proposed the Quality Excellence of Sports Centres (Q.U.E.S.C.), which was then adapted by Papadimitriou and Karteroliotis (2000) with the use of the Fitness and Sport Service Quality scale (F.I.T.S.S.Q.). Similarly, other studies have analysed quality in Greek fitness centres (Alexandris, Dimitriadis, & Kasiara, 2001), South African fitness centres (Dhurup, Singh, & Surujlal, 2006), Spanish centres (García, Cepeda, & Martín, 2012) and Cypriot centres (Tsitskari, Antoniadis, & Costa, 2014). In each of these, the dimensions varied depending on the scale's adaptation.

Other studies of the fitness industry stem from Brady and Cronin's (2001) proposal which results from the interactions of physical quality, environment quality and outcome quality and, in particular, due to their direct applicability, those of Alexandris, Zahariadis, Tsorbatzoudis, and Grouios (2004) and Ko and Pastore (2005). The dimensions mentioned above are adapted to staff interaction, facilities and expected results, which are decisive in the fitness industry (Chelladurai & Chang, 2000; Papadimitriou & Karteliotis, 2000). In addition, recent studies such as those of Avourdiadou, Laios, Kosta, and Theodorakis (2014), Gonçalves, Biscay, Correia, and Diniz (2014) and García-Fernández et al. (2017a), verified how the quality was composed of these dimensions in public, private and low-cost fitness centres, respectively.

It is important to point out how satisfaction has received growing interest in the academic literature, being considered as an antecedent of loyalty (Oliver, 1999). Satisfaction is considered to be a response or a post-consumption evaluation (Kotler, 1991). Published studies have addressed the relationship between quality and satisfaction, with quality as an antecedent of satisfaction (Polyakova & Mirza, 2016). Its importance centres on the understanding that satisfied clients respond positively in economic and competitive situations

by increasing the volume of product acquisition, a drop in communication cost and the attraction of new clients (Payne & Pennie, 2005).

Likewise, there is evidence within the fitness sector of the causal relationship between quality and satisfaction. Although work has been done on public fitness centres (Avourdiadou & Theodorakis, 2014), the majority have analysed this relationship in private facilities (García et al., 2012; García-Fernández et al., 2016, 2017b; Theodorakis, Howat, Ko, & Avourdiadou, 2014). This fact indicates a lack of studies in the public sector and therefore there is a gap in the affirmation of this relationship in this business model.

Similarly, perceived value has been recognised as the core of an organisation's global strategy, earning the title of 'the heart of modern approximation to marketing' (Nilson, 1992, p. 32). Zeithaml (1988, p. 14) defines it as the 'global evaluation by the consumer of the utility of a product, based on the perception of what is received and what is given'. Such global valuing is founded on what the client is willing to offer with regard to what s/he is going to receive in return (Oliver, 1999). The causal relation between quality and perceived value has received attention recently, understanding quality as a determinant factor of perceived value (Teas & Agarwal, 2000). In fact, it is widely known that value is a consequence of quality (Cronin, Brady, & Hult, 2000).

Different studies have been published within the context of fitness centres (e.g., Bodet, 2012; Ferrand, Robinson, & Valette-Florence, 2010). Amongst them, the causal relation has declined, making perceived value a consequence of quality in private facilities (García-Fernández et al., 2016, 2017a, 2017b; Theodorakis et al., 2014), public facilities (Murray & Howat, 2002) and with consumers from both type of centres (Nuviala, Grao-Cruces, Pérez-Turpin, & Nuviala, 2012).

Furthermore, perceived value and satisfaction have presented a causal relationship between both variables. Woodruff and Gardial (1996) state that their affinity is fundamentally due to a natural relation since both concepts are built upon evaluative perceptions. In prior publications concerning this matter, what has received greater acceptance is the understanding that satisfaction is the consequence of perceived value (Zeithaml & Bitner, 1996). In the same way, there is evidence with clients from public (Calabuig, Núñez-Pomar, Prado-Gascó, & Añó, 2014; Murray & Howat, 2002) and private fitness centres (García-Fernández et al., 2016, 2017a, 2017b; Theodorakis et al., 2014), which address the positive and direct relationship between value and client satisfaction.

2.2. *Value, satisfaction and future intentions in fitness centres*

A number of studies have focused on the positive relationship between perceived value and client behaviour intentions (Cronin et al., 2000). In particular, Lewis and Soureli (2006) declare that perceived value is the most determinant factor for a client to re-purchase a product. In the case of studies conducted at fitness centres, although there are studies that have not positively related these variables (García-Fernández et al., 2017b), most studies confirm a positive and direct relationship between perceived value and future intentions in public fitness centres (Calabuig et al., 2014; Murray & Howat, 2002) and private fitness centres (García-Fernández et al., 2016).

Likewise, Galen, Dean, and Janet (2005) state that satisfaction is a prediction of future intentions and a satisfied client tends to share his/her experiences with five or six people

and an unsatisfied client with ten (Zairi, 2000). If a client is satisfied, it is more likely that the services or product will be repurchased or reused (Bernhardt, Donthu, & Kennett, 2000).

The relationship between satisfaction and a client's loyalty or future intentions has been studied by the sports sector with many approaches. Moreover, it is as of late one of the most verified relationships in the fitness sector. Several studies comprehensively affirm this direct relationship in public (Avourdiadou & Theodorakis, 2014; Calabuig et al., 2014; Murray & Howat, 2002) and private sporting facilities (García et al., 2016, 2017a, 2017b; Theodorakis et al., 2014).

2.3. Hypotheses and theoretical model

The literature reviewed provides knowledge of the relationships between the variables to be analysed. This study presents a model of relationships between overall quality, perceived value, satisfaction and future intentions to be tested in two different business models of fitness centres. Firstly, although there are studies that have investigated the dimensionality of perceived quality in fitness centres (e.g., Chang & Chelladurai, 2003; Tsitskari et al., 2014), few investigations have asserted the dimensionality of the perceived quality in facilities, employees and programmes in public, private and low-cost fitness centres (Alexandris et al., 2004; Avourdiadou et al., 2014; García-Fernández et al., 2017a; Gonçalves et al., 2014). Similarly, the literature on sports management has revealed an interest in the relationship between perceived quality and customer satisfaction. In fact, previous studies affirmed the positive and direct relationship between perceived quality and satisfaction (Theodorakis et al., 2014). For its part, the study of perceived value has increased its interest in the sports sector. Specifically, work performed at fitness centres confirms that perceived value is a consequence of perceived quality (García-Fernández et al., 2017a, 2017b). In turn, perceived value influences client satisfaction (Theodorakis et al., 2014), by stating that there is a positive and direct relationship with satisfaction and future intentions (Calabuig et al., 2014; Murray & Howat, 2002). Finally, the proposed model incorporates a final relationship between customer satisfaction and future intentions, due to its direct and positive relationship (Theodorakis et al., 2014).

Based on the above definition and the suggested relationship of the variables in the literature, the following hypotheses can be formulated (Figure 1):

Hypothesis 1a. There is a direct and positive relationship between the perceived quality of the facilities and the overall quality of public fitness centres.

Hypothesis 1b. There is a direct and positive relationship between the perceived quality of the facilities and the overall quality of private low-cost fitness centres.

Hypothesis 2a. There is a direct and positive relationship between the perceived employee quality and the overall quality of public fitness centres.

Hypothesis 2b. There is a direct and positive relationship between the perceived employee quality and the overall quality of private low-cost fitness centres.

Hypothesis 3a. There is a direct and positive relationship between the perceived quality of programmes and the overall quality of public fitness centres.

Hypothesis 3b. There is a direct and positive relationship between programmes and the overall quality of private low-cost fitness centres.

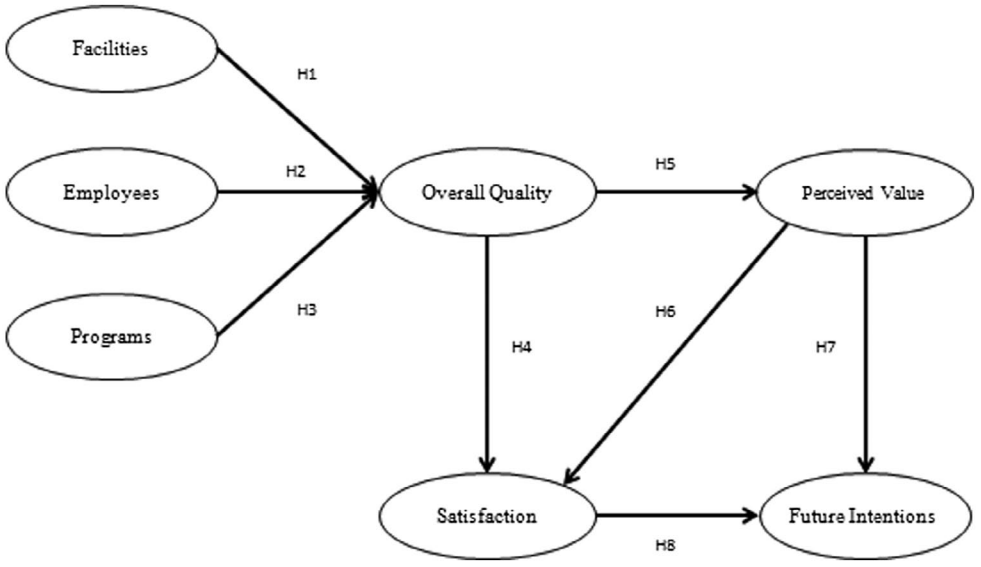

Figure 1. Hypothesised model. Source: Authors' calculations.

Hypothesis 4a. There is a direct and positive relationship between the overall quality and satisfaction of public fitness centres.

Hypothesis 4b. There is a direct and positive relationship between the overall quality and satisfaction of private low-cost fitness centres.

Hypothesis 5a. There is a direct and positive relationship between the overall quality and the perceived value of public fitness centres.

Hypothesis 5b. There is a direct and positive relationship between the overall quality and the perceived value of private low-cost fitness centres.

Hypothesis 6a. There is a direct and positive relationship between the perceived value and the satisfaction of public fitness centre clients.

Hypothesis 6b. There is a direct and positive relationship between the perceived value and satisfaction of private low-cost fitness centre clients.

Hypothesis 7a. There is a direct and positive relationship between the perceived value and future intentions of public fitness centres.

Hypothesis 7b. There is a direct and positive relationship between the perceived value and future intentions of private low-cost fitness centres.

Hypothesis 8a. There is a direct and positive relationship between satisfaction and future intentions in public fitness centres.

Hypothesis 8b. There is a direct and positive relationship between satisfaction and future intentions in private low-cost fitness centres.

3. Methodology

3.1. Participants

A convenience sample of 1805 clients (753 were from four private low-cost facilities and 1052 from six public facilities) was used for this study. The fitness centres analysed are

geographically located in the fourth Spanish city with the highest number of low-cost fitness centres (Valcarce et al., 2017). In total, 992 (54.9%) were women and 813 (45.1%) were men. According to sample categories, public sporting facilities had 62.6% (n = 661) women and 37.4% (n = 391) men participating. Participants from private low-cost facilities consisted of 44% (n = 331) women and 56% (n = 422) men. The specific data of the sample can be seen in Table 1.

3.2. Measurement

The questionnaire intended to assess customers' perceptions of perceived quality (facilities, employees and programmes) adopting the measures of Brady and Cronin (2001) which contain 15 items and four items geared to measure overall quality (Oliver, 1997). Four other items measured perceived value (Zeithaml, 1988). Satisfaction was measured with four items from the study by Oliver (1997). Finally, behaviour intentions were measured by four

Table 1. Distribution of sample according to gender, age, academic studies, length of membership and weekly frequency.

	Public fitness		Low-cost fitness		Total	
	n	%	*n*	%	*n*	%
Gender						
Male	391	37.4	422	56.0	813	45.1
Female	661	62.6	331	44.0	992	54.9
Total	1052	100	753	100	1805	100
Age						
Less than 20 years	39	3.7	74	9.8	113	6.3
From 21 to 30 years	118	11.2	395	52.6	513	28.4
From 31 to 40 years	104	9.9	175	23.3	279	15.4
From 41 to 50 years	109	10.4	70	9.3	179	9.9
More than 50 years	682	64.8	38	5.0	720	39.8
Total	1052	100	753	100	1805	100
Academic studies						
Elemental	298	28.4	2	0.2	300	16.6
Primary	214	20.3	20	2.7	234	13.0
Secondary	165	15.7	158	21.0	323	17.9
University	211	20.1	315	41.8	526	29.1
Professional studies	143	13.6	194	25.8	337	18.7
Masters	21	1.9	64	7.0	85	4.7
Total	1052	100	753	100	1805	100
Length of membership						
0 to 6 months	181	17.2	469	62.3	650	36.0
7 to 12 months	198	18.8	135	17.9	333	18.4
13 to 18 months	41	3.9	42	5.6	83	4.6
19 to 24 months	162	15.4	66	8.8	228	12.6
24 to 36 months	178	17.0	25	3.3	203	11.3
More than 36 months	292	27.7	16	2.1	308	17.0
Total	1052	100	753	100	1805	100
Weekly frequency						
Once/week	10	1.0	6	0.8	16	0.9
Twice/week	436	41.4	20	2.7	456	25.3
Three times/week	453	43.1	122	16.2	575	31.8
Four times/week	37	3.5	227	30.1	264	14.6
Five/more times/week	116	11.0	378	50.2	494	27.3
Total	1052	100	753	100	1805	100

Note: *n*, frequency.
Source: Authors' calculations.

items offered by Zeithaml, Berry, and Parasuraman (1996). All the scales have been used in other fitness studies (Alexandris et al., 2004; Avourdiadou & Theodorakis, 2014; García-Fernández et al., 2016, 2017a, 2017b; Theodorakis et al., 2014). All the items were evaluated with a nine-point Likert scale ranging from (1) completely disagree to (9) completely agree.

3.3. Procedure

The process of data collection consisted of contacting public and private fitness centres in the same municipality or county. In the case of public centres, a meeting with the highest ranked employee was requested from the town hall, and for private centres the general managers of each centre. After the meetings and after having obtained a positive response to participating in the study, details such as time commitment and the dates to administer the questionnaire (for one week, during the morning and the evening) were coordinated by three pecialized researchers.

3.4. Analysis data

The data were analysed using S.P.S.S. and A.M.O.S. 21.0 (S.P.S.S., An I.B.M. Company, Chicago, IL). First, the confirmatory factor analysis (C.F.A.) was used to evaluate the structure of the measurement model proposed in each centre (public fitness and private low-cost fitness). The internal consistency of the constructs was measured through composite reliability (Hair, Black, Babin, & Anderson, 2009). Having tested the structure of the model, a descriptive analysis for each dimension was conducted and the two-sample T-test was used to compare the groups, also testing the effect size (Cohen, 1988).

Convergent validity was evaluated through the average variance extracted (A.V.E.), while discriminant validity was established when the A.V.E. for each construct exceeded the squared correlations between that construct and any other (Fornell & Larcker, 1981). Finally, a multi-group analysis was performed to test the difference between two invariance models (public and low-cost). Each model's invariance was tested by comparing the unconstrained model with the model constraining the structural weights (Loehlin, 2003). We do not rely on the χ^2, as it is judged to be too restrictive; instead, we count on the change in the C.F.I. value (Byrne, 2009), which has to be lower than .01 (Cheung & Rensvold, 2002).

The adequacy of the model was analysed based on a set of fit indexes using the maximum likelihood method. Goodness of fit indexes were assessed with the ratio of chi-square to its degrees of freedom (χ^2/df), C.F.I. (*comparative fit index*), I.F.I. (*incremental fit index*), T.L.I. (*Tucker-Lewis Index*) and R.M.S.E.A. (*root mean square error of approximation*). An appropriate adjustment was considered when values were less than 3 for chi-square and degrees of freedom (Kline, 1998), above .90 for the C.F.I., I.F.I., T.L.I. and I.F.I. indexes (Hair et al., 2009) and equal or inferior to .08 for R.M.S.E.A. (Arbuckle, 2008).

4. Results

4.1. Measurement model for fitness centres

The confirmatory factor analysis was conducted for each group of fitness centres with the purpose of testing the psychometric properties in each group. The measurement model

for the public fitness group as well as that of private low-cost fitness indicate an acceptable adjustment in the indexes considered (Table 2). The value χ^2/df was situated above the criteria 3.0 (Kline, 1998) for both groups although this indicator has been shown to be sensitive to the sample size (Hair et al., 2009) and the present study was developed with a large sample. The C.F.I., I.F.I. and T.L.I. values in both groups were greater than the minimal recommended threshold of .90 (Hair et al., 2009). The R.M.S.E.A. index offered a good adjustment (Arbuckle, 2008), obtaining an index of .07 for both groups, providing evidence of a satisfactory adjustment.

As shown in Table 3, all items showed high factor loadings (above criteria .50; Hair et al., 2009), ranging from .763 to .951 for the public fitness centres sample and .563 to .957 for the low-cost fitness centres sample, indicating that each item is appropriately captured in its respective factor. The composite reliability values exceeded .70 (Hair et al., 2009) in each one of the constructs of both groups. The average variance ranged between .64 and .84 for the public fitness group and between .54 and .82 for the low-cost fitness group, values greater than the recommended standard of .50 indicating adequate convergent validity (Fornell & Larcker, 1981) (Table 3).

The mean scores of each dimension are superior in general terms in the public fitness group (Table 4). The highest valuation was found in *programmes* in both groups (public: $M = 8.51$, $SD = 1.29$; private low-cost: $M = 7.91$, $SD = 1.13$). Yet, the lowest valuation differs in both groups: *facilities* for public ($M = 7.10$, $SD = 1.68$) and *overall quality* for the private low-cost sample ($M = 7.19$, $SD = 1.20$). The two-sample T-test was used to test for mean differences with regards to the type of centre, obtaining significant differences in all dimensions, the effect size being medium or low in all cases (Cohen, 1988).

To test the discriminant validity, we examined the average variance extracted (A.V.E.) and compared the square root of the A.V.E. (i.e., the diagonal in Table 5) with the correlations between the constructs (i.e., the off-diagonal values in Table 5). The square root of the A.V.E. in all constructs exceeds the value 0.5 and each is greater than the correlation between the constructs. In order to demonstrate discriminant validity, the diagonal values should be greater than the off-diagonal values (Fornell & Larcker, 1981).

4.2. Structural model

The structural model test includes an evaluation for the adjustment of each group, as well as relationships of latent constructs. The adjustment of the models was acceptable for the public fitness group [$\chi^2(423) = 3352.84$ ($p < .001$); $\chi^2/gl = 7.92$; C.F.I. = .92; T.L.I. = .91; I.F.I. = .92; R.M.R. = .200; R.M.S.E.A. = .08 (C.I. = .079, .084)] as well as for the private low-cost fitness group [$\chi^2(423) = 2341.29$ ($p < .001$); $\chi^2/gl = 5.53$; C.F.I. = .92; T.L.I. = .92; I.F.I. = .92; R.M.R. = .127; R.M.S.E.A. = .08 (C.I. = .075, .081)]. The coefficients for each model are shown in Table 6. For *perceived quality*, the trajectory analysis demonstrated that *facilities*

Table 2. Goodness-of-fit indexes for public and low-cost fitness models.

Model	χ^2	df	χ^2/df	C.F.I.	I.F.I.	T.L.I.	R.M.S.E.A. (C.I.)
Public fitness	2973.91	413	7.20	.93	.93	.92	.07 (.074–.079)
Low-cost fitness	2137.97	413	5.17	.93	.93	.92	.07 (.071–.079)

Notes: χ^2 = chi-square; df = degrees of freedom; C.F.I. = comparative fit index; I.F.I. = incremental fit index; T.L.I. = Tucker-Lewis Index; R.M.S.E.A. = root mean square error of approximation; C.I. = confidence interval.
Source: Authors' calculations.

Table 3. Factor loadings (λ), composite reliability (CR) and average variance extracted (A.V.E.).

	Public fitness			Low-cost fitness		
Constructs/items	λ	C.R.	A.V.E.	λ	C.R.	A.V.E.
Facilities (F)		.90	.64		.85	.54
1. Fitness centre facilities are attractive	.791			.760		
2. Fitness centre facilities are spacious	.797			.563		
3. Fitness centres are clean	.763			.766		
4. The fitness centre equipment is in good condition	.858			.829		
5. The fitness centre environment (temperature, air) is good.	.783			.721		
Employees (E)		.94	.75		.94	.76
6. Employees respond quickly to customer needs	.879			.866		
7. Employees work with enthusiasm	.912			.903		
8. Employees are educated	.873			.879		
9. Employees help customers feel comfortable	.889			.899		
10. Employees are experts	.778			.800		
Programmes (P)		.93	.73		.94	.77
11. Physical activity programmes help me increase my energy	.832			.862		
12. Physical activity programmes help me improve my health	.853			.915		
13. Physical activity programmes help me improve my humour	.838			.869		
14. Physical activity programmes help me improve my psychological well-being	.867			.864		
15. Physical activity programmes help me improve my fitness	.869			.869		
Overall Quality (O.Q.)		.96	.86		.94	.80
16. The level of programmes and services of this fitness centre are excellent	.896			.838		
17. The level of programmes of services in this fitness centre are too high	.943			.892		
18. The level of services and the quality of programmes in this fitness centre are very high	.940			.933		
19. The programmes and services of this fitness centre are of a high level	.925			.903		
Perceived Value (P.V.)		.95	.83		.91	.73
20. The programmes and services of this fitness centre have a great value	.926			.842		
21. The programmes and services of this fitness centre are worth what they cost	.891			.818		
22. What I get from this fitness centre and what it costs, offers me value	.921			.840		
23. In general, the value of programmes and services in this fitness centre is high	.909			.910		
Satisfaction (S)		.95	.81		.95	.82
24. I am satisfied with the programmes and services of this fitness centre	.937			.874		
25. I am happy with the programmes and services of this fitness centre	.881			.861		
26. I am pleased to have taken the decision to become a member of this fitness centre	.916			.946		
27. My decision to be a member of this fitness centre was successful	.874			.937		
Future Intention (F.I.)		.95	.84		.95	.82
28. I will make positive comments to a friend about the programmes and services of this fitness centre	.915			.943		

(*Continued*)

Table 3. (*Continued*).

	Public fitness			Low-cost fitness		
Constructs/items	λ	C.R.	A.V.E.	λ	C.R.	A.V.E.
29. If you ask me, I would recommend this fitness centre	.951			.957		
30. I will continue to participate in the programmes and services of this fitness centre	.900			.831		
31. I would sign up for this fitness centre if I unsubscribed	.889			.876		

Notes: λ, factor loading; C.R., composite reliability; A.V.E., average variance extracted.
Source: Authors' calculations.

Table 4. Descriptive statistics of dimensions and differences between both types of centres.

	Public fitness		Low-cost fitness				
Constructs	*M*	*S.D.*	*M*	*S.D.*	t (df)	*p*	*d*
Facilities	7.10	1.68	7.33	1.15	3.281 (1803)	.001	0.07
Employees	8.29	1.29	7.73	1.26	9.263 (1803)	.000	0.21
Programmes	8.51	1.04	7.91	1.13	11.647 (1803)	.000	0.26
Overall quality	7.70	1.52	7.19	1.20	7.517 (1803)	.000	0.17
Satisfaction	7.67	1.72	7.41	1.18	3.529 (1803)	.000	0.08
Perceived value	8.22	1.33	7.70	1.22	8.451 (1803)	.000	0.19
Future intentions	8.37	1.27	7.84	1.30	8.707 (1803)	.000	0.20

Notes: *M*, mean; *S.D.*, standard deviation; t(df), T-test (degrees of freedom); *p*, significance; *d*, Cohen's d.
Source: Authors' calculations.

Table 5. Correlation and square root of the average variance extracted (A.V.E.).

Public fitness	F	E	P	O.Q.	P.V.	S	F.I.
F	**.64**						
E	.10	**.75**					
P	.05	.35	**.73**				
O.Q.	.15	.15	.24	**.86**			
P.V.	.09	.09	.12	.20	**.83**		
S	.11	.28	.40	.38	.28	**.81**	
F.I.	.10	.21	.22	.28	.21	.61	**.84**
Low-cost fitness							
F	**.54**						
E	.36	**.76**					
P	.23	.34	**.77**				
O.Q.	.41	.35	.32	**.80**			
P.V.	.49	.46	.36	.67	**.73**		
S	.41	.43	.36	.53	.69	**.82**	
F.I.	.33	.36	.29	.43	.59	.82	**.82**

Notes: A.V.E., average variance extracted; F, facilities; E, employees; P, programmes; O.Q., overall quality; P.V., perceived value; S, satisfaction; F.I., future intentions.
Source: Authors' calculations.

and *employees* have a positive relationship in both models, with the private low-cost group having the highest effect ($\beta = .43$; $p < .001$ and $\beta = .23$; $p < .001$, respectively). The public group did not demonstrate a significant relationship between the *employees* and *perceived quality* ($\beta = .05$; $p = .147$). However, the public group demonstrated a major influence in the case of *programmes* ($\beta = .47$; $p < .001$) versus private low-cost ($\beta = .29$; $p < .001$). The relationship between *perceived quality* and *perceived value* was positive and significant in

Table 6. Summary results of the structural model for each group.

		Public fitness			Low-cost fitness		
H	Relationship	Confirmed (a)	β	Z-value	Confirmed (b)	β	Z-value
1	F – O.Q.	Yes	.35***	11.72	Yes	.43***	10.27
2	E – O.Q.	No	.05	1.45	Yes	.23***	5.51
3	P – O.Q.	Yes	.47***	12.65	Yes	.29***	8.45
4	O.Q. – S	Yes	.55***	19.65	Yes	.21***	3.47
5	O.Q. – P.V.	Yes	.60***	20.91	Yes	.90***	25.80
6	P.V – S	Yes	.33***	11.96	Yes	.70***	10.93
7	P.V. – F.I.	Yes	.06*	2.24	No	.04	.902
8	S – F.I.	Yes	.81***	28.04	Yes	.90***	18.74

Notes: H, hypothesis; F, facilities; E, employees; P, programmes; O.Q., overall quality; P.V., perceived value; S, satisfaction; F.I., future intentions.
*$p < .05$; ***$p < .001$.
Source: Authors' calculations.

both models (public: $\beta = .60$; $p < .001$; low-cost: $\beta = .90$; $p < .001$). The same occurred with the relationship between *perceived value* and *satisfaction* (public: $\beta = .33$; $p < .001$; low-cost: $\beta = .70$; $p < .001$), and between *satisfaction* and *future intentions* (public: $\beta = .81$; $p < .001$; low-cost: $\beta = .90$; $p < .001$). In all three cases (H5, H6 and H8), the effects were stronger in the private low-cost group. In contrast, the relationship between *perceived quality* and *satisfaction*, although significant in both models, turned out to be stronger in the public group ($\beta = .55$; $p < .001$) versus the private low-cost group ($\beta = .21$; $p < .001$). Lastly, the two models represented a very weak effect between *perceived value* and *future intentions* (public: $\beta = .06$; $p < .025$; low-cost: $\beta = .04$; $p < .367$), suggesting low significance in the public group.

4.3. Comparison between public fitness centres and private low-cost fitness centres

In the comparison between the model's invariance between the groups of fitness centres, both the unconstrained model [$\chi^2(826) = 5111.88$ ($p < .001$); $\chi^2/gl = 6.19$; C.F.I. = .93; I.F.I. = .93; T.L.I. = .92; R.M.S.E.A. = .05 (C.I. = .052, .055)] and the model constraining the structural weights [$\chi^2(850) = 5295.10$ ($p <. 001$); $\chi^2/gl = 6.23$; C.F.I. = .92; I.F.I. = .92; T.L.I. = .92; R.M.S.E.A. = .06 (C.I. = .057, .060)] showed acceptable adjustments. A comparison of the changes in the C.F.I. index was conducted (Byrne, 2009), being inferior to .01 (Cheung & Rensvold, 2002), which indicated that the factor structure is established in two independent samples (Loehlin, 2003), in this case, the public and private low-cost centres (Figure 2).

5. Discussion and conclusions

To date, there exists a gap in the sports management literature to comprehensively study the relationships of quality, perceived value, satisfaction and future intentions in a model that is adjusted to public and low-cost fitness centres (García-Fernández et al., 2017a). The results of this study have contributed evidence that confirms the conclusions of previous studies with regard to loyalty models, and shows that the future intentions of fitness consumers depend on quality, perceived value and satisfaction. Nevertheless, the results have shown that the relationships depend largely on the business model.

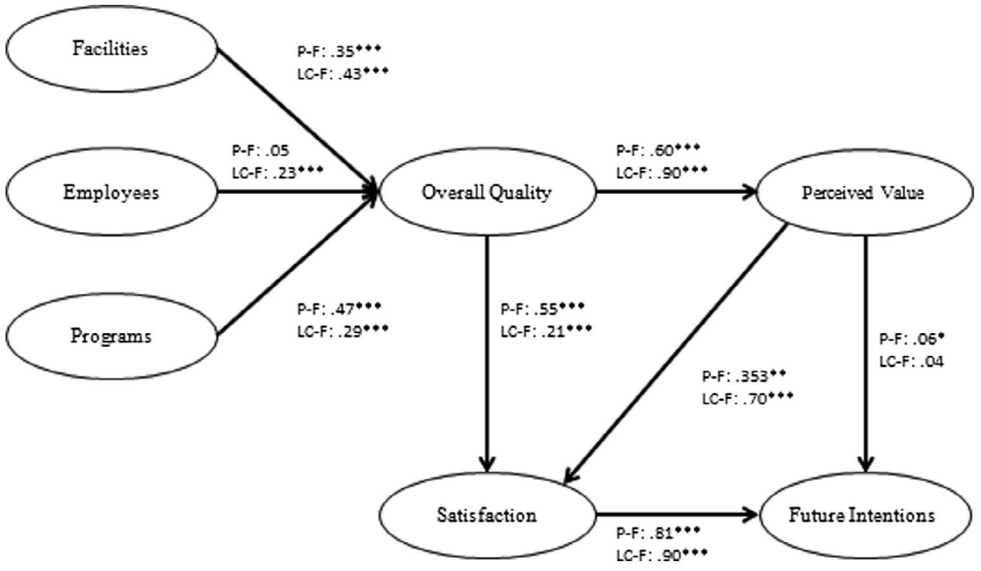

Figure 2. Standardised estimates of the structural models. Source: Authors' calculations.
Notes: P.F., public fitness; L.-C.F., low-cost fitness; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. Unconstrained model: $\chi^2(826) = 5111.88$ ($p < .001$); $\chi^2/gl = 6.19$; C.F.I. = .93; I.F.I. = .93; T.L.I. = .92; R.M.S.E.A. = .05 (C.I. = .052, .055). Constraining the structural weights: $\chi^2(850) = 5295.10$ ($p < .001$); $\chi^2/gl = 6.23$; C.F.I. = .92; I.F.I. = .92; T.L.I. = .92; R.M.S.E.A. = .06 (C.I. =.057, .060).

The findings demonstrate that facilities and programmes complement each other in overall quality for clients in both business models (Alexandris et al., 2004). Comprehensively, the private model has a greater weight in facilities as a factor that is determinant of overall quality. Similarly, within the public model, programmes have a major impact on overall quality. Just as notable is the finding that suggests employees have no impact on overall quality, in contrast to the private model (Chang & Chelladurai, 2003), as the results demonstrate programmes in the private model have a major impact on overall quality.

The results confirm the relationship between overall quality and satisfaction, resulting in a strong relationship with public facilities (Avourdiaou & Theodorakis, 2014). Likewise, the relationship between overall quality and perceived value is confirmed with private low-cost facilities demonstrating a stronger relationship (García-Fernández et al., 2016, 2017a, 2017b; Theodorakis et al., 2014) and there being a weaker relationship in public centres (Murray & Howat, 2002). Although the relationship between perceived value and satisfaction was direct and positive in both models (Avourdiadou & Theodorakis, 2014; Theodorakis et al., 2014), the results indicate a stronger relationship in private facilities. In the same way, the findings demonstrate that perceived value does not have a significant relationship with future intentions in private facilities, as affirmed by Theodorakis et al. (2014). Notwithstanding this, the relationship did exist in public centres as previously indicated by Murray and Howat (2002) and Calabuig et al. (2014). To finish with the relationship of the model tested, satisfaction related positively to future intentions in public and private, low-fit fitness centres. This finding corroborates the relations of both variables irrespective of the business model (Avourdiadou & Theodorakis, 2014; Calabuig et al., 2014; García-Fernández et al., 2016, 2017a, 2017b; Theodorakis et al., 2014).

In terms of its implications for management, this study reveals the differences in the management of fitness centres depending on the management model. Specifically, the first data to highlight are the differences of consumers depending on the business model. Thus, the low-cost model has been characterised by serving young clients, male or female, under 40 years old, having higher education and with short-term attendance at the facility. In contrast, public facilities have a greater number of women over 50, having elementary studies and long-term attendance at the fitness centres. These profiles show the need for managers to analyse their clients' habits through strategies of segmentation to consider their offer of sports services. In this way, the loyalty model tested has shown that managers of private facilities should emphasise the care of their infrastructure, programmes and employees as these play a decisive role in overall client quality. In particular, managers must take care of the installations since it is the dimension with a greater weight on the general quality. Hence, the results have shown the importance in private facilities of the relationship between perceived quality, perceived value and satisfaction on future intentions, showing that customers are very rigorous and critical with them when they make purchase decisions. This is not the case in public facilities, where managers will have to emphasise more the programming of the sports service due to its influence on overall quality and its relation with satisfaction. So, public managers will have to make efforts both in the programmes and in the facilities, leaving the human resources of the facility as a last necessity. In this way, the analysis of clients in the public fitness centres shows a lower relation between the general quality and the perceived value, due to their not evaluating in depth the general benefits against the perceived sacrifices that make up the perceived value (Zeithaml, 1988). Therefore, the findings have shown that private managers have to take better care of all the details so that customers continue to consume their services, unlike public managers who should direct their efforts towards good sports programmes. While this study has contributed to the sports management literature, it does have certain limitations. The scale used to measure perceived quality was composed of three dimensions (facilities, employees and programmes). This fact could subtract information from the perception of other dimensions of the consumer. Equally, the scales used to measure the value, satisfaction and future intentions had four items and therefore reduced a greater understanding of the consumer. In addition, the study was conducted in a city in the south of Spain and is therefore not generalisable. Future investigations should focus on implementing scales that allow for a better understanding of the client in each centre. Therefore, future work should correctly choose scales of the variables analysed in this study, thereby collecting more information on the sports services offered by both public and private centres. Similarly, although it is true that the fitness centres analysed were located in the fourth city with the greatest number of sports facilities in Spain (Valcarce et al., 2017), it would be necessary to corroborate if this fidelity model was also the same in other Spanish cities and in different countries.

We can conclude that customer loyalty in both public fitness centres and low-cost centres depends on the positive perception of quality, value and satisfaction. Nonetheless, depending on the business model, relationships might or might not be connected.

Disclosure statement

No potential conflict of interest was reported by the authors.

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