

The effect of perceived quality and customer engagement on the loyalty of users of Spanish fitness centres

Perceived quality and the loyalty of users

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El efecto de la calidad percibida y el compromiso del cliente en la lealtad de los usuarios de centros de fitness españoles

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Abstract

Purpose – The purpose of this paper is to analyse the influence of perceived quality and customer engagement on perceived value and satisfaction in a model to evaluate loyalty in users of fitness centres.

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Ethical approval: all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration. In this sense, an electronic informed consent was given by participants for participation. Thus, confidentiality and privacy were ensured and personal information was not disclosed.

Availability of data and materials: The data that support the results of the present study are available on request from the corresponding author. The data are not publicly available in order to respect the privacy of the research's participants.

Conflict of interest: On behalf of all authors, the corresponding author states that there is no conflict of interest.



Design/methodology/approach – Through an online questionnaire, the study uses a large sample of 6,584 users from 44 low-cost fitness centres from different cities in Spain. After validating the measurement model, the hypotheses were tested through structural equation (SEM) modelling technique, noting the existence of significant relationships.

Findings – The results showed that two dimensions of perceived quality have a positive influence on perceived value (employees) and satisfaction (facilities). However, the enthused participation dimension of customer engagement also indicated an important impact on perceived value and satisfaction, thus confirming the influence of this dimension in the context of sports services for users' loyalty.

Originality/value – With a large sample, the importance of this study lies in the use of strategies to achieve a greater influence on perceived value and satisfaction, with the aim of increasing customer loyalty in fitness centres. This is why, in addition to the service quality, the influence of the customer engagement dimensions is included, which have not been previously analysed in this emerging business model.

Keywords Perceived quality, Customer engagement, Perceived value, Satisfaction, Loyalty, Fitness industry
Paper type Research paper

Resumen

Propósito – El propósito de este trabajo es analizar la influencia de la calidad percibida y el compromiso del cliente sobre el valor percibido y la satisfacción en un modelo para evaluar la lealtad en usuarios de centros de fitness.

Diseño/metodología/enfoque – A través de un cuestionario online, el estudio utiliza una muestra amplia de 6.584 usuarios de 44 centros de fitness low-cost de diferentes ciudades de España. Tras validar el modelo de medida, las hipótesis fueron contrastadas utilizando análisis de ecuaciones estructurales, observándose la existencia de relaciones significativas.

Hallazgos – Los resultados mostraron que dos dimensiones de la calidad percibida tienen una influencia positiva en el valor percibido (empleados) y la satisfacción (instalaciones). Sin embargo, la dimensión de participación entusiasta del compromiso del cliente también indicó un impacto importante en el valor percibido y la satisfacción, lo que confirma la influencia de esta dimensión en el contexto de los servicios deportivos para la fidelización de los usuarios.

Originalidad/valor – Con una extensa muestra, la importancia de este estudio radica en el uso de estrategias para lograr una mayor influencia en el valor percibido y la satisfacción, con el objetivo de fidelizar a los clientes de los centros de fitness. Por eso, además de la calidad del servicio, se incluye la influencia de las dimensiones del compromiso con el cliente, que no han sido analizadas previamente en este modelo de negocio emergente.

Palabras clave Calidad percibida, Compromiso del cliente, Valor percibido, Satisfacción, Lealtad, Industria del fitness

Tipo de papel Trabajo de investigación

1. Introduction

The fitness industry is currently one of the industries with the largest increase in participants worldwide (Foroughi *et al.*, 2019). Currently, there are 63.1 million fitness centre users in Europe, with a total of 63,830 fitness centres, generating a total revenue of 28 billion euros (EuropeActive and Deloitte, 2023). In turn, this industry has been the subject of numerous studies in recent years that analyse the loyalty chain (Yoshida *et al.*, 2023). To this end, different measurement models have been validated with the aim of establishing the best management systems and strategies based on different dimensions.

However, regarding customer engagement, most of the existing literature has focussed, on the one hand, on conceptualising, delineating and identifying the dimensionality of the term, leading to different definitions and conceptualisations, and on the other, on the analysis of the consequences for companies (Vivek *et al.*, 2012), than to customer-based research (Prentice and Correia, 2018). For this reason, authors such as Vivek *et al.* (2014) suggest that more studies are needed to examine its influence on other variables, including satisfaction and perceived value when representing consequences of customer engagement (Brodie *et al.*, 2011; Hollebeek, 2013).

Customer engagement, in fitness industry, encourages participation in sports activities, promoting social relationships and, ultimately, increasing consumer loyalty in fitness centres

(García-Fernández *et al.*, 2020) by developing a sense of brand ownership. In this sense, Kim *et al.* (2013) suggests these variables could become positive antecedents of behavioural intention and, consequently, of consumer loyalty. Additionally, consumer non-transactional behaviour with engagement is useful to explain how consumers and companies create new value propositions in non-transactional exchanges between buyers and sellers (Yoshida *et al.*, 2014). This allows for the creation of positive social exchanges between organisations and their consumers. That is why customer engagement, in addition to attracting customer purchases and brand loyalty (Prentice *et al.*, 2019), could create a sustainable competitive advantage through lower customer churn, highly involved customers, creative customers of value, more sales and a stronger loyalty base (Itani *et al.*, 2019).

Within the context of sports services, the literature has focussed on mainly on a loyalty model, based on the evaluation of the perceived quality of the service and its influence on perceived value, satisfaction and future intention (e.g. García-Fernández *et al.*, 2018b; Jeon *et al.*, 2021; Sevilmiş *et al.*, 2022). Furthermore, within the loyalty model in fitness centres, studies show included dimensions of service experience (Baena-Arroyo *et al.*, 2020), service convenience (García-Fernández *et al.*, 2018a), corporate image (Alguacil *et al.*, 2022), or even consumer motives (Teixeira and Correia, 2009), being very few studies in this context include customer engagement in loyalty models. Therefore, and despite the emergence of conceptual studies related to customer engagement, research in which scales have been developed and tested is relatively scarce (McDonald *et al.*, 2022; Vivek *et al.*, 2014), existing therefore a gap in the literature focussed on the fitness industry and sports services in terms of evaluation tools that allow a greater knowledge of customer engagement and its influence on the main dimensions that lead to the future intention.

Considering this scenario and taking into account the increased growth of physical and sports activity in fitness centres (IHRS, 2022), this study examined how perceived quality (facilities, employees and programmes) and customer engagement (conscious attention, enthused participation and social connection) influence perceived value and satisfaction and, in turn, how satisfaction influences future intentions in consumers of low-cost fitness centres. Thus, this work offers potential contributions to research in a context of high relevance in the last decade, also providing important practical implications.

2. Literature review

Research carried out in recent decades on fitness centres has been oriented towards global studies, focussed primarily on perceived quality and perceived value (García-Pascual *et al.*, 2023). Regarding its conceptualisation, perceived quality is understood as “the result of an evaluation process in which clients compare their expectations with the service they perceive to have received” (Grönroos, 1984, p. 37). Regarding perceived value, Zeithaml *et al.* (1996, p. 14) indicated that it is a “general evaluation of a product based on the perceptions of what it receives and what it gives in return”, and Oliver (1999, p. 45) summarised it as a positive function of what the client received and a negative function of what the client sacrificed. The relationship between these dimensions has been confirmed in various studies in sport industry, such as spectators of sporting events (e.g. Calabuig *et al.*, 2014), sports facilities and organisations (e.g. Jin *et al.*, 2015) and specifically in the fitness sector (e.g. García-Fernández *et al.*, 2018a; Theodorakis *et al.*, 2014).

On the other hand, satisfaction has also been of interest in the academic literature (e.g. García-Fernández *et al.*, 2018b). According to Westbrook and Oliver (1991), satisfaction is a post-choice evaluative judgement that refers to a certain purchase (p. 84), observing a positive relationship between perceived quality and satisfaction in studies carried out in the context of sports services and fitness (e.g. Avourdiadou and Theodorakis, 2014; Tsourela, 2022). In the same way, perceived value is recognised as an indicator prior to consumer satisfaction in the

sport business industry, specifically in sports facilities in countries such as Greece (Avourdiadou and Theodorakis, 2014), Turkey (Çevik and Sevilmiş, 2022), Portugal (Carrizo and Freitas, 2016) and Cyprus (Tsitskari *et al.*, 2014b) and specifically in the fitness sector in Spain (García-Fernández *et al.*, 2018a).

The specific concept of customer engagement was introduced around 2005 amongst marketing academics (Sylvia *et al.*, 2020) and is currently an emerging research topic to test the level of interaction between customers and organisations, because of the benefits it brings: higher sales, more positive word-of-mouth, lower transaction costs (Angulo-Ruiz *et al.*, 2014), predictor of customer loyalty (Pansari and Kumar, 2017), offers a promising means to predict and explain important customer behaviours (Hollebeek *et al.*, 2014), customer retention (Torkzadeh *et al.*, 2022), or the “co-creation” of value through highly engaged customers in interactions with the organisation (Chang *et al.*, 2021), amongst others.

Amongst the variety of definitions, according to Brodie *et al.* (2011) customer engagement can be understood as “a psychological state that occurs by virtue of interactive, cocreative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships” (p. 260). Yoshida *et al.* (2014) argue that customer engagement brings together consumers’ non-transactional behaviours, thereby creating positive social atmospheres between an organisation and its consumers. In line with such non-transactional behaviour, Kim *et al.* (2016) refer to the emotionally motivating interaction experience of a consumer with a brand, whilst Beckers *et al.* (2018) stress behaviours that go beyond transactions, which Kumar and Pansari (2016) established at various levels (between customers and between customers and employees), with a later study claiming (Pansari and Kumar, 2017) that if the relationship is satisfactory and there is an emotional bond, the relationship with the client evolves towards commitment. For this reason, Wang and Chiu (2023) stated that sports service organisations must generate positive and stable relationships with their consumers in order to establish a positive relationship with the perceived value. At the same time, commitment to the client leads to greater satisfaction and perceived value (Hollebeek, 2013), being also synonymous with greater loyalty and trust (Hollebeek, 2011) and therefore is regarded as a novel approach to explaining customer value (Gligor *et al.*, 2019), without forgetting that the positive orientation towards the brand and company emanates from a commitment (Prentice and Correia, 2018). Therefore, according to Torkzadeh *et al.* (2022) and Behnam *et al.* (2023) existing ideas on what constitutes customer engagement are divergent and there is a lack of knowledge about its antecedents and consequences from the consumer perspective, highlighting the need for further empirical examinations (Dessart *et al.*, 2015).

In line with the above, the customer engagement is an interactive concept that transpires during customer/brand or firm interactions (Harrigan *et al.*, 2018; Schönberner and Woratschek, 2023), as is the case with perceived quality in requiring interaction with the service by comparing expectation with perception. Therefore, although the influence of perceived quality on value, satisfaction and future intention is a model with a long history in the specific literature in the context of the fitness industry, it is also a model with a long history in the fitness industry context, various authors point out the need to carry out empirical studies that examine the relationship between customer commitment and perceived value (Brodie *et al.*, 2011; Hollebeek, 2013; Vivek *et al.*, 2014), since these dimensions are positioned as positive antecedents of behavioural intention and, consequently, consumer loyalty (Kim *et al.*, 2013) revealing there is thus a positive relationship between customer engagement and perceived value.

Additionally, according to Brodie *et al.* (2011) customer engagement driven by particular circumstances leads to a higher perceived customer value as well as greater satisfaction (Şirin *et al.*, 2023). Likewise, Hollebeek (2013) points out that satisfaction comes as a consequence of customer commitment and, in turn, there is evidence that relates customer satisfaction with future intentions. Specifically, this relationship has been demonstrated in users of fitness

centres in countries such as Greece (Avourdiadou and Theodorakis, 2014) and Spain (García-Fernández *et al.*, 2018a).

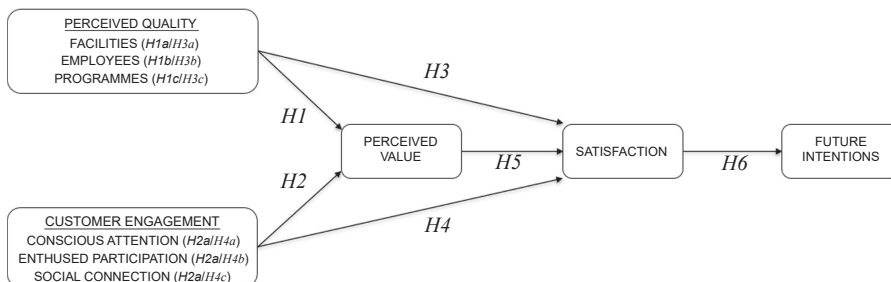
Based on the existing literature and empirical studies, this study examines whether customer engagement is positioned against perceived quality (both multidimensional variables) as a stronger predictor of perceived value, satisfaction and future intentions. These are, therefore, relationships that have not been previously used in the context of low-cost fitness centres; hence, this work can contribute to knowledge about the behaviour of customer engagement by providing highly useful information for professionals in this area: kind of fitness centres. Therefore, in the present study the following hypotheses are proposed (see Figure 1):

- H1. The dimensions of perceived quality (facilities, employees and programmes) have a positive relationship with the perceived value for customers of low-cost fitness centres.
- H2. The dimensions of customer engagement (conscious attention, enthused participation and social connection) have a positive relationship with the perceived value for customers of low-cost fitness centres.
- H3. The dimensions of perceived quality (facilities, employees and programmes) have a positive relationship on satisfaction for customers of low-cost fitness centres.
- H4. The dimensions of customer engagement (conscious attention, enthused participation and social connection) have a positive relationship with satisfaction for customers of low-cost fitness centres.
- H5. Perceived value has a positive relationship with satisfaction for customers of low-cost fitness centres.
- H6. Consumer satisfaction has a positive relationship with the future intention for customers of low-cost fitness centres.

3. Methodology

3.1 Sample and procedures

The data were collected using an online questionnaire through a convenience sampling of customers in 44 low-cost fitness centres from different cities in Spain. All the fitness centres were of 1,000 square metres or more and had the same common spaces: cardio and strength room, two or more multipurpose rooms and fitness activities (functional training, aerobics,



Note(s): Figure shows hypothesized relationship among studied variables

Source(s): Authors' own work

Figure 1.
Research model

spinning, etc.). Data collection was carried out every day of the week (including weekends) at different times (morning, afternoon and evening). Participants were informed that their response to the survey was voluntary and would be kept confidential. The sample of this study included 6,584 clients, specifically 3,324 (50.5%) women and 3,260 (49.9%) men. With regard to the age of the participants, a total of 210 (3.2%) respondents were 20 years old or less, 1,630 (24.8%) were between 21 and 30 years old, 2,032 (30.9%) were between 31 and 40 years old, 1,738 (26.4%) were between 41 and 50 years old, 765 (11.6%) were between 51 and 60 years old and 209 (3.2%) of the respondents were 60 years old or more. An overview of the participants' demographic characteristics is presented in [Table 1](#).

3.2 Measures

The scales consist of ten-point Likert items that ranged from completely disagree to completely agree. The tool used in this study comprised five sections addressing perceived quality (9 items), customer engagement (15 items), perceived value (2 items), satisfaction (3 items) and future intentions (3 items). Additionally, we obtained demographic variables such as gender, age range, length of membership and weekly frequency of usage.

Perceived quality was measured using a 9 items scale by [Brady and Cronin \(2001\)](#). It measures three dimensions: facilities (3 items; e.g. "The equipment of the fitness centre is in a good condition"), employees (3 items; e.g. "Employees help customers feel comfortable") and programmes (3 items; e.g. "Physical activity programmes help me improve my fitness conditions"). This scale has been used by [García-Fernández et al. \(2018b\)](#) to analyse different business models of fitness centres in Spain (non-profit and low-cost).

Variable		Frequency	Percentage (%)
Gender	Female	3,324	50.5
	Male	3,260	49.5
	Total	6,584	100
Age	Under 21 years old	210	3.2
	From 21 to 30 years old	1,630	24.8
	From 31 to 40 years old	2,032	30.9
	From 41 to 50 years old	1,738	26.4
	From 51 to 60 years old	765	11.6
	Over 60 years old	209	3.2
	Total	6,584	100
Length of membership	Less than 3 months	827	12.6
	3–6 months	1,200	18.2
	7–12 months	826	12.5
	13–24 months	1,707	25.9
	More than 2 years	2,024	30.7
	Total	6,584	100
Weekly frequency	Less than once/week	198	3.0
	Once/week	190	2.9
	Twice/week	1,076	16.3
	Three times/week	2,170	33.0
	Four times/week	1,590	24.1
	Five or more times/week	1,360	20.7
	Total	6,584	100

Table 1.
Sample profile and
characteristics

Note(s): The table shows the data of the sample studied
Source(s): Authors' own work

Customer engagement was evaluated through the scale of Vivek *et al.* (2014), involves three dimensions and a total of 15 items: conscious attention (6 items; e.g. “I like to learn more about this centre”), enthused participation (6 items; e.g. “My days would not be the same without this centre”) and social connection (3 items; e.g. “I enjoy this fitness centre more when I am with others”). This scale has previously been used by García-Fernández *et al.* (2020) in the context of the boutique business model, specifically in CrossFit services.

Perceived value (Zeithaml, 1988) and *satisfaction* (Oliver, 1997) were assessed through 2 items and *future intention* (Zeithaml *et al.*, 1996) through 3 items. An example of item is “The programmes and service of this fitness centre are worth what they cost” (perceived value), “I am pleased to have taken the decision to become a member of this fitness centre” (satisfaction) and “I will make positive comments to a friend about the programmes and services offered at this fitness centre” (future intention). The 3 scales have previously been used in the context of sports services (García-Fernández *et al.*, 2018b, c, 2020) (see Table 2).

3.3 Data analysis

The statistical package SPSS and AMOS (version 21.0) were used to exploit the data obtained from the distributed questionnaires. The data set was analysed using various statistical methods, such a descriptive data (frequency and percentage) for characteristics of the sample, confirmatory factor analysis (CFA) using the maximum likelihood estimation for the measurement model, internal-consistency ($\alpha > 0.70$; Chin, 2010) and composite reliability (CR > 0.70 ; Blunch, 2008) analysis, construct validity analysis and path analysis (structural model). Multiple indices were examined to assess the model’s goodness of fit: the chi-square statistic (χ^2), normed chi-square (χ^2/df), comparative fit index (CFI), Tucker–Lewis index (TLI), incremental fit index (IFI), parsimony comparative of fit index (PCFI) and root mean square error of approximation (RMSEA). Critical values recommended for the model’s fit were used: $\chi^2/\text{df} < 5$ (Bentler, 2002), > 0.90 for the CFI, TLI and IFI (Malhotra, 2010), > 0.60 for PCFI and < 0.08 for RMSEA (Hair *et al.*, 2009). The convergent validity was measured by determining the average variance extracted (AVE > 0.50 ; Fornell and Larcker, 1981) and discriminant validity was established by computing the square root of the AVE (values exceeding the correlation estimates between the relevant latent factors are indicative of discriminant validity).

4. Results

4.1 Confirmatory factor analysis and validity analyses

CFA was the statistical technique performed to determine how well the items represented the proposed constructs and the goodness-of-fit indices indicated that the model showed an acceptable fit to the data: $\chi^2/\text{df} = 3847.12/428 = 8.98$; CFI = 0.95; TLI = 0.94; IFI = 0.95; PCFI = 0.82; RMSEA = 0.06, 90% CI [0.06, 0.07]. However, all items except CE5 corresponding to the dimension conscious attention ($\lambda = 0.50$), CE9 ($\lambda = 0.49$) and CE12 ($\lambda = 0.43$) corresponding to the dimension enthused participation and S1 ($\lambda = 0.52$), showed factor loadings higher than the 0.70 needed to satisfy convergent validity and modification indices suggested allowing error terms of items CE1 and CE3 (MI = 59.61) and CE7 and CE8 (MI = 61.91) to correlate. The overall fit indices suggested a good fit of the data: $\chi^2/\text{df} = 2157.89/308 = 7.00$; CFI = 0.98; goodness-of-fit statistics (GFI) = 0.96; TLI = 0.98; IFI = 0.98; PCFI = 0.80; RMSEA = 0.04, 90% CI [0.03, 0.04]. All indices were greater than the minimum recommended threshold except the chi-square value which was slightly high. However, although the chi-square value was significant ($p < 0.001$), it is sensitive regarding the sample size and for this reason is not widely used to reject or accept the measurement model (Hair *et al.*, 2009), using a combination of indices to assess the fit to the data.

Item	Constructs and measure	λ	α	CR	AVE
<i>Perceived quality (PQ)</i>					
<i>Facilities (FAC)</i>					
PQ1	The fitness centre facilities are attractive	0.89	0.90	0.91	0.77
PQ2	The fitness centre facilities are clean	0.83			
PQ3	The equipment of the fitness centre is in good condition	0.89			
<i>Employees (EMP)</i>					
PQ4	Employees are polite	0.95	0.95	0.96	0.89
PQ5	Employees help customers feel comfortable	0.93			
PQ6	Employees are experts	0.94			
<i>Programs (PRO)</i>					
PQ7	Physical activity programmes help me improve my health	0.97	0.98	0.98	0.94
PQ8	Physical activity programmes help me improve my psychological well-being	0.97			
PQ9	Physical activity programmes help me improve my fitness conditions	0.97			
<i>Customer Engagement (CE)</i>					
<i>Conscious attention (CA)</i>					
CE1	I like to know more about this fitness centre	0.74	0.93	0.92	0.69
CE2	I like events that are related to this fitness centre	0.79			
CE3	I like to learn more about this centre	0.83			
CE4	I pay a lot of attention to anything about this fitness centre	0.90			
CE6	Anything related to this centre grabs my attention	0.88			
<i>Enthusied participation (EP)</i>					
CE7	I spend a lot of my discretionary time in this centre	0.71	0.91	0.90	0.69
CE8	I am heavily into this fitness centre	0.85			
CE10	I am passionate about this fitness centre	0.92			
CE11	My days would not be the same without this centre	0.81			
<i>Social connection (SC)</i>					
CE13	I love being in this fitness centre with my friends	0.91	0.87	0.91	0.77
CE14	I enjoy this fitness centre more when I am with others	0.80			
CE15	This fitness centre is more fun when other people around me practise too	0.90			
<i>Perceived Value (PV)</i>					
PV1	The programmes and service of this fitness centre are worth what they cost	0.92	0.93	0.93	0.88
PV2	In general, the value of programmes and services in this fitness centre is high	0.94			
<i>Satisfaction (S)</i>					
S2	I am satisfied with my decision to join this fitness centre	0.99	0.98	0.99	0.98
S3	I am pleased to have taken the decision to become a member of this fitness centre	0.98			
<i>Future Intention (FI)</i>					
FI1	I will make positive comments to a friend about the programmes and services offered at this fitness centre	0.98	0.98	0.98	0.95
FI2	If you ask me, I will recommend this fitness centre	0.98			
FI3	I would sign up for this fitness centre again if I unsubscribed	0.95			

Table 2. Factor loading, Cronbach's alpha, CR and AVE values

Note(s): λ , factor loading; α , Cronbach's alpha; CR, composite reliability; AVE, average variance extracted. The table shows the items and the factor loading, Cronbach's alpha, composite reliability, and average variance extracted

Source(s): Authors' own work

To assess the reliability, Cronbach's alpha (α) values were calculated and to estimate the CR of the different constructs, the criteria of [Fornell and Larcker \(1981\)](#) was followed. In the first case (α), values were greater than 0.70 ranging from 0.87 (*social connection*) to 0.98 (*programmes, satisfaction and future intention*); in the second case, the results were higher

than the recommended cut-off value of 0.70, ranging from 0.90 (*enthused participation*) to 0.99 (*satisfaction*), indicating that the factors were reliable. The target factor loadings for the items were highly significant ($p < 0.01$), ranging from 0.71 to 0.99 (see Table 2), demonstrating convergent validity. All the AVE values were higher than 0.50, ranging between 0.69 (*conscious attention* and *enthused participation*) and 0.98 (*satisfaction*). Finally, the square root of AVE ($\sqrt{\text{AVE}}$) of each construct exceeds the correlation between constructs, demonstrating the discriminant validity (Fornell and Larcker, 1981) (see Table 3).

4.2 Structural model and hypotheses testing

To test the proposed hypotheses that relate to the causal relationship amongst the different constructs in the model, a structural equation modelling (SEM) analysis was conducted. First, the degree of linear dependency of the indicators was checked, obtaining variance inflation factors between 1.62 and 6.27, indicating that collinearity is not a problem in our measurement model. The global evaluation of the model demonstrated a satisfactory fit in all indexes, specifically the CFI, TLI and IFI scores (0.96, 0.95 and 0.96, respectively) suggesting a good fit, the PCFI value (0.81) was also adequate and RMSEA achieved the sufficient requirement (0.07, 90% CI [0.07, 0.09]). The relative chi-square/df (χ^2/df) was within the accepted level ($1198.24/243 = 4.93$). These results supported that the proposed model revealed pertinent data considering the sample size.

Table 4 summarises the findings of the SEM analysis. The results show that H1a-b-c are supported by the data, with the three dimensions being significant and with the greatest effect for the perceived value (H1a $\beta = 0.68, p < 0.001$), whilst both the employees (H1b) and programmes (H1c) showed similar results ($\beta = 0.33, p < 0.001$ and $\beta = 0.32, p < 0.001$, respectively). On the other hand, in the relationship between the dimensions of customer engagement and the perceived value, significance was obtained only in the dimension enthused participation ($\beta = 0.15, p < 0.001$). When checking the influence on satisfaction, H3a-b were fulfilled with a greater effect of the employees dimension ($\beta = 0.13; p < 0.001$), whereas the enthused participation dimension was the only one that showed a significance in the relationship with satisfaction ($\beta = 0.05; p < 0.001$), although the effect decreases with respect to that shown on the perceived value. Finally, both H5 ($\beta = 0.76; p < 0.001$) and H6 ($\beta = 0.94; p < 0.001$) were fulfilled, showing in both cases a positive and significant effect. Altogether, the model dimensions accounted for approximately 57% of the variance in future intentions ($R^2 = 0.57$).

	S	PV	FI	CA	EP	SC	FAC	EMP	PRO
S	0.98								
PV	0.87	0.88							
FI	0.92	0.85	0.95						
CA	0.20	0.21	0.22	0.69					
EP	0.21	0.20	0.21	0.50	0.69				
SC	0.11	0.11	0.12	0.31	0.37	0.77			
FAC	0.71	0.75	0.71	0.19	0.15	0.09	0.77		
EMP	0.62	0.64	0.62	0.19	0.15	0.14	0.60	0.89	
PRO	0.57	0.62	0.57	0.23	0.16	0.12	0.54	0.62	0.94

Note(s): S, satisfaction; PV, value; FI, future intention; CA, conscious attention; EP, enthused participation; SC, social connection; FAC, facilities; EMP, employees; PRO, programmes

The table shows the discriminant validity of the results

Source(s): Authors' own work

Table 3. Discriminant validity (Fornell-Larcker Criterion)

Hypotheses	Relationships	Hypotheses	B	Z-value
H1a	FAC → PV	Supported	0.68 ^{***}	46.42
H1b	EMP → PV	Supported	0.33 ^{***}	21.60
H1c	PRO → PV	Supported	0.32 ^{***}	21.90
H2a	CA → PV	Not supported	0.05	1.98
H2b	EP → PV	Supported	0.13 ^{***}	10.92
H2c	SC → PV	Not supported	0.04	2.48
H3a	FAC → SAT	Supported	0.09 ^{***}	5.65
H3b	EMP → SAT	Supported	0.13 ^{***}	9.83
H3c	PRO → SAT	Not supported	0.02	1.67
H4a	CA → SAT	Not supported	0.01	1.77
H4b	EP → SAT	Supported	0.05 ^{***}	5.41
H4c	SC → SAT	Not supported	0.02	2.53
H5	PV → SAT	Supported	0.76 ^{***}	44.36
H6	SAT → FI	Supported	0.94 ^{***}	75.39

Note(s): H, hypothesis; FAC, facilities; EMP, employees; PRO, programmes; PV, perceived quality; CA, conscious attention; EP, enthused participation; SC, social connection; SAT, satisfaction; FI, future intention. * < 0.05; ** < 0.01; *** < 0.001

Table 4.

Summary results of the structural model

The table shows the summary results of the structural model

Source(s): Authors' own work

5. Discussion

In the current competitive market, companies depend on information and suggestions of their consumers to obtain relevant information which allows them to improve their general experience (Itani *et al.*, 2019). For this reason, the present work has analysed the relationship between the dimensions of perceived quality and customer engagement and perceived value and satisfaction and the influence of the latter on future intentions. These analyses have been carried out on a sample of users of low-cost fitness centres, providing knowledge in an industry that grows year by year. In fact, in 2021 it generated its historical maximum according to IHRSA (2022), placing the Spanish market as the third country in the European Union market in turnover volume, having in 2022 increased the volume of users in the last year until 5.4 million (EuropeActive and Deloitte, 2023). Therefore, and because there are still few studies that empirically analyse the consequences of customer engagement (Pansari and Kumar, 2017; Schönberner and Woratschek, 2023; Vivek *et al.*, 2014), their analysis in this business model represents an advance, compared to other studies, by providing a new variable that has not been used previously and that presents opportunities to improve the management of low-cost fitness centres.

In this study, the influence of customer engagement on perceived value and satisfaction is the most important finding, since it is the first empirical study to integrate this variable with other higher-order marketing constructs based on the perceptions of low-cost fitness centre customers. Therefore, these results show that the elements of customer engagement exert influences on variables important for management (McDonald *et al.*, 2022; Vivek *et al.*, 2014), this variable being an antecedent of consumer loyalty (Brodie *et al.*, 2011; Parihar *et al.*, 2019; Van Doorn *et al.*, 2010). Specifically, the results of this study suggest that this customer loyalty is formed indirectly through the influence of customer engagement on improving perceived value and customer satisfaction, with these variables acting as moderators in this relationship. These findings are in line with various studies that have highlighted that perceived value (Brodie *et al.*, 2011; Hollebeek, 2013; Vivek *et al.*, 2014) and satisfaction (Brodie *et al.*, 2011; Hollebeek, 2013; Rakhi, 2019) are consequences of customer engagement.

However, considering the multidimensional nature of consumer engagement (Hollebeek, 2011), the results of this study show that the enthused participation dimension is the only one that influences the antecedents of loyalty (perceived value and satisfaction). Therefore, understanding the dimensionality of customer engagement is useful in that sense (Vivek *et al.*, 2014) as it can help to create more effective marketing strategies. These findings suggest that customer engagement is the result of emotional experiences and is manifested in the behaviour of customers in the company (Pandita and Vapiwala, 2023; Van Doorn *et al.*, 2010), in this case indirectly through their loyalty. In fact, some authors have pointed out that enthused participation is a very similar construct to the passion of Hollebeek (2011) and to the hedonic experiences of Gambetti and Graffigna (2010). Therefore, the importance of the dimension of engagement related to enjoyment experiences is highlighted to guarantee the loyalty of clients in fitness centres.

Furthermore, taking into account that the dimensions of customer engagement depend on the context (Behnam *et al.*, 2023; Vivek *et al.*, 2014), the importance of this specific dimension may be due to the nature of sports services and their ability to generate emotions (Crespo-Hervás *et al.*, 2019) and links that other industries are not capable of achieving. This is an aspect that influences perceived value, satisfaction and, finally, the customers' continuity as sports consumers. Therefore, once again, the role of this emotional value of sport in the fitness industry is highlighted to understand the reactions of consumers after the purchase of a product or service (Pedragosa *et al.*, 2015). In addition, as Schönberner and Woratschek (2023) state, it is shown that customer engagement is a behaviour that comes not only from the rational senses but also from those that are emotional, and in this point, it can contribute to improving customer loyalty.

The results showed strong relationships between the dimensions of perceived quality and satisfaction. In this sense, although customer engagement is positioned as an antecedent of perceived value and satisfaction (Brodie *et al.*, 2011; Hollebeek, 2013), the tangible aspects of the sports service, specifically the facilities, have been shown to be what most influences perceived value. This finding has some solidity in the case of a business model characterized by the low presence of specialised personnel, this being the main cost reduction strategy, but having large spaces and a large fitness room and well-equipped facilities (Valcarce, 2016). Therefore, customers who attend this type of fitness centre, when assessing whether the service they receive is adequate for the price paid and the value it offers, usually give more importance to the quality of the facilities over other aspects such as human resources or the activities offered, even more so taking into account the increase in technology in fitness equipment in this type of sports facilities. On the other hand and within the relationship between perceived quality and satisfaction, the relationships were weaker in all dimensions than those obtained between perceived quality and perceived value, where it was not the facilities but the employees of the sports centre that showed the highest predictive power, which is in line with previous studies (Tsitskari *et al.*, 2014a).

In relation to the influence of customer engagement and perceived quality, the latter showed stronger relationships with perceived value and satisfaction. However, these results should not neglect the importance of customer engagement for customer loyalty (Brodie *et al.*, 2011; Van Doorn *et al.*, 2010), since unlike other variables that are a post-consumer state in which the customer has bought the product or service at least once, customer engagement can be a state of pre or post consumption (Parihar *et al.*, 2019). Therefore, the data from this study suggest that continuous customer engagement with various engagement strategies before, during and after a purchase transaction can improve positive word-of-mouth (WOM), customer loyalty and promotion, as well as relationships that stand the test of time and competition (Vivek *et al.*, 2014). That is why sports managers must be aware of and use marketing strategies to promote customer engagement and guarantee, in advance, high levels of perceived value and satisfaction in their customers, which will ultimately be materialised in loyalty and the recruitment of new clients.

Finally, a strong relationship has been found between perceived value and satisfaction, a relationship that has been found in the fitness sector in various previous studies (García-Fernández *et al.*, 2018a; García-Pascual *et al.*, 2023; Sevilmiş *et al.*, 2022; Theodorakis *et al.*, 2014). Likewise, the existence of a strong direct and positive relationship between the satisfaction and loyalty of the clients of these organisations was also observed, as previous studies in the fitness industry had pointed out (Avourdiadou and Theodorakis, 2014; Çevik and Sevilmiş, 2022; García-Fernández *et al.*, 2018a; Trail *et al.*, 2005). These results contribute a loyalty model for low-cost fitness centres, bringing to the debate the importance of the dimensions of the quality of services, but especially of customer engagement, as factors that influence value and satisfaction and finally their impact on loyalty.

6. Conclusions

Analysing the factors that affect the loyalty of clients of low-cost fitness centres is of vital importance because it is a business model on the rise in the sports industry. Although the promotion of perceived quality, perceived value and satisfaction are of great importance, sports managers should not forget the potential of customer engagement as a variable that has been gaining weight in recent years. The creation of marketing strategies to achieve high levels of customer engagement, making customers feel enthusiastic and passionate about the low-cost fitness centre that they attend (enthused participation) is essential. To do this, generating enriching experiences and creating a climate in which clients feel part of the centre, as well as their progress in it, are of vital importance. This may be easier to achieve if the fitness centre has good human resources and good technology to monitor the progress of its clients. Also, social networks are a key element for promoting engagement. In this way, customer satisfaction and perceived value will be fostered and, indirectly, their loyalty will be guaranteed.

In fact, specifically the quality of human resources, that is, having employees with good knowledge and social skills, is also a fundamental aspect in this type of centre to achieve customer loyalty. This fact highlights the role that human relationships play in this type of fitness centre, despite being low-cost. Finally, in this kind of fitness centre, the value of tangible elements should not be forgotten either. Particularly, the quality of the facilities turned out to be very important for these clients of low-cost centres, so care must be taken both in their design and in their maintenance and cleaning. Therefore, sports managers of low-cost fitness centres must consider all these aspects when managing them and develop marketing strategies for customer loyalty as well as attracting new customers. In addition, as a result of achieving the satisfaction and engagement of these customers, positive publicity by customers through WOM will also be an effective way to draw new customers.

7. Limitations and future research lines

This study presents a series of limitations that give rise to future study lines. In the first place, the data come specifically from low-cost fitness centres in a particular country, so they cannot be generalised to the entire population of low-cost fitness centres. Therefore, it would be interesting for future research to test the proposed model with data from fitness centres in other countries, which would provide greater external validity. Likewise, this study has not analysed whether some sociodemographic variables, such as gender, age, or length of service of clients, can influence the relationships between these variables. Consequently, future studies should analyse whether this type of sociodemographic variables moderates the relationship of the variables of the model proposed in this study, in order to understand in depth how to retain each segment of these customers. Additionally, testing the proposed model using samples from different business models (premium, women, full service, boutique, niche academy and others) would also be an interesting avenue of research.

On the other hand, and considering the large sample size, a random sample could be used which, although not without problems according to Krause and Howard (2003), allows us to counteract some causes of endogeneity (Hill *et al.*, 2020). In this sense, one of the main causes of endogeneity (selection) established by Wooldridge (2010) is avoided, related to the existing bias when the selected sample is not random (in this case, for convenience). This would make it possible to check whether the results differ from those obtained in the original study.

Finally, it should be noted that some researchers (Pansari and Kumar, 2017) have shown that committed customers can directly contribute to the success of companies via referring new customers. As a result, it would be interesting for future studies in this industry to analyse the role that customer engagement plays in attracting new customers through the analysis of the relationships between the dimensions of this variable and WOM.

8. Practical implications for management

The results of this study present a series of theoretical and practical implications. In the first place, in relation to the theoretical implications, this study shows that customer engagement is an antecedent of satisfaction, despite the fact that other studies have pointed it out as a consequence of it (Pansari and Kumar, 2017). Therefore, this relationship should be considered in future studies when analysing the relationship between these variables. Furthermore, this study empirically corroborates that customer engagement is a multidimensional construct and that its importance varies according to the context (Vivek *et al.*, 2014). Specifically, in the case of the low-cost fitness centre industry, enthused participation was the only dimension that affected satisfaction and perceived value. In this way, it is highlighted that this dimension of customer engagement, which is the one most related to emotions in the experiences of users of these low-cost fitness centres, is a key variable for promoting loyalty. Therefore, the management and adjustment of the customer engagement strategy of low-cost fitness centres taking this dimension into account must be a fundamental part of the strategic approach of this type of business model.

Regarding the practical implications, this work has shown that customer engagement has a positive effect on perceived value and satisfaction in users of fitness centres, although analyses have shown that perceived quality has a greater weight in the performance model used and, therefore, a greater consequence on the chain of loyalty of this type of customers. Engagement strategies offer opportunities for customers to influence other customers and non-customers, especially through social connections. Additionally, engaged customers are a more credible voice for the brand, help other customers to recognise their needs and make others see how a brand can meet those needs (Vivek *et al.*, 2014).

Along these lines, a large number of customer decisions are affected by social media networks (Vohra and Bhardwaj, 2019), which is why the use of social media platforms is an important tool to generate customer engagement. In fact, it can be seen how many fitness centre chains are implementing concrete actions through social networks to improve interaction with users and, therefore, improve customer engagement. For this reason, fitness centres must continue working on strategies to improve customer engagement, for example through actions aimed at promoting participation in social networks with more attractive content, or with actions that more directly involves users. They have to also develop activities and/or events within the fitness centre in which the participation in its design by the users increases, with the aim of generating positive related experiences with the brand, or actions aimed at improving communication between fitness centre staff and users, with a high efficiency in solving problems and very close attention. In turn, and as Pandita and Vapiwala (2023) state, the sport managers must plan actions to improve customer engagement, as this will subsequently influence perceived value and ultimately customer loyalty. Amongst these actions, one can consider the invest in omnichannel customer engagement, to integrate a live

chat and chatbots to communicate with the customers, to create a strong customer loyalty programme, to create a specific customer journey in all interactions and, finally, to have Key Performance Indicators (KPIs) for measuring the actions. Whilst these actions are focussed on the management of fitness centres, managers of other businesses that also sell services can use them to improve customer engagement and ultimately increase customer loyalty.

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