

Understanding the determinants of customer loyalty in swimming pools

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Abstract

Purpose: It is widely accepted that doing exercise regularly is essential to promote physical, psychological and social well-being. Yet, often dropout rates tend to be high. The current paper analyses the potential determinants of satisfaction and loyalty in the sports and fitness context looking in particular at four main dimensions of service quality: infrastructures/physical environment, relationship with instructors/staff, outcomes achieved and customer-to-customer interaction.

Methodology: The proposed model was estimated using data collected from a sample of 384 users of four Portuguese swimming pools facilities by means of a survey questionnaire.

Findings: The majority of the hypotheses tested found support in the data. In particular, the quality of the interaction with instructors and the results obtained from exercising have a strong impact on satisfaction, which, on its turn, is highly correlated with psychological commitment and positive word-of-mouth communication.

Practical implications: Based on the findings some managerial implications can be derived. Such recommendations can enhance users' perceptions of service quality and indirectly contribute to a more regular and effective sports practice.

Originality/Value: The importance of enhancing loyalty has been emphasised in sports management literature. Yet, few studies have empirically investigated the simultaneous relationships among service quality dimensions, customer satisfaction and loyalty. This research partially addresses this gap.

Keywords

loyalty; sports and fitness; service quality; customer satisfaction; swimming pools

Introduction

It is widely accepted that doing exercise is essential to promote physical, psychological and social well-being. Therefore, over the last decades, the importance of encouraging sports practice has been stressed and governments have made important investments to improve accessibility to sports infrastructures.

In this context, there is a growing interest in studying the leisure and sports industry given its economic and social importance. The literature suggests a range of motives for sport and recreation participation, including health improvement, relaxation, socialisation and competition (Theodorakis et al., 2004).

Yet, with the exception of a few research studies focused on identifying dimensions of quality in specific services (such as fitness services, leisure services and recreation services), the literature on service quality in sports is rather scarce.

Investigating the dimensions of service quality and understanding their impact upon satisfaction and loyalty is important to overcome typically high dropout rates, which jeopardise long-term effects of practicing sport activities (Tsitskari et al., 2014a, Tsitskari et al., 2014b). In fact, several researchers (e.g. Parasuraman et al., 1988) have highlighted the relevance of understanding service quality due to its importance as a potential driver of customer satisfaction and loyalty.

The current paper analyses the determinants of satisfaction and loyalty in the sports and fitness context looking in particular at four dimensions of service quality: infrastructures/physical environment, relationship with instructors/staff members and customer-to-customer interaction. With this purpose in mind, data were collected from a sample of 384 users of four municipal swimming pools of the Centre Region of Portugal. Our study includes all physical activities related to water use: swimming classes, other sporting discipline classes (such as hydro-gymnastics) and free-use or self-oriented use. The proposed model was estimated using structural equation modelling techniques.

There is a lack of empirical studies focused on the activities/services that are offered by municipal swimming pools. Moreover, mixed results regarding the effect of different quality dimensions on customer satisfaction and on loyalty can be found in the literature. This paper addresses these literature gaps.

The remainder of the paper is structured as follows. In the next section, the link between service quality, satisfaction and loyalty is discussed based on the insights of seminal papers. Then, a literature review of relevant studies specifically focused on the sports and fitness context is conducted. The model proposed is presented in the following section. Next, data collection and analysis methods are described. Afterwards, the study main findings are presented. Finally, some conclusions are drawn.

The link between service quality, loyalty and satisfaction in brief

The relevance of understanding service quality is often justified by its importance as a potential driver of customer satisfaction and loyalty (Parasuraman et al., 1988). As Howat and Crilley (2007) sum up, satisfied customers are more likely to increase their usage of a service and to recommend the service to others, making customer retention 'highly profitable' and effective in helping gaining new customers. For customers, loyalty has also benefits in terms of time spent in searching for product information and evaluating products/services from competitors.

Grönroos (1984) conceptualised service quality as comprising both process (the physical environment and the staff) and outcome quality, which he referred to as technical quality. As

Parasuraman et al. (1988, p. 6) stated, perceived service quality is “a global judgment or attitude relating to the superiority of a service” and is usually assessed by confronting expectations and perceptions of how well the service has performed. According to Zeithaml et al. (2006, cited in Veerasamy et al. 2013: 100), “expectations are beliefs about service delivery that serves as standards against which performance is judged”. Customer expectations are formed a priori based on past experiences, personal needs, word-of-mouth from other customers (in particular those from friends and acquaintances) and external communication from service providers (promotion in particular). On the other hand, customer perceptions are defined by Zeithaml and Bitner (2000, cited in Veerasamy et al., 2013, p.100) as “the subjective assessments of actual service experiences”. In assessing service quality according to the so-called ‘disconfirmation paradigm’, studies based on the SERVQUAL instrument, proposed by Parasuraman, Berry and Zeithalm in the eighties, dominate. Yet, alternative models exist, most of them associated with the performance-based approach, which argues that service quality is better measured using performance perceptions only (Cronin and Taylor, 1992). This is notably the case of the SERVPERF scale.

In most empirical studies, satisfaction is regarded as a mediator of the service quality - loyalty relationship (Kyle et al., 2010). As Oliver (1980) puts it, satisfaction is a cognitive and affective reaction to a service incident. In this sense, it is the result of both the process and the outcome phases of the service experience (Oliver, 1997, cited in Howat and Crilley, 2007).

Marketing literature points out to the existence of two main conceptualisations of satisfaction: need-satisfaction and appraisal satisfaction (Manell, 1999, cited in Theodorakis et al., 2004). Need-satisfaction is associated with the idea of motivation and regards satisfaction as a result of meeting or satisfying corresponding needs. It follows from this perspective that satisfaction is evaluated against the expected outcome. On the other hand, appraisal satisfaction is closer to the service quality construct. Moreover, as Oliver (1997, cited in Theodorakis et al., 2015) points out, satisfaction can be conceptualised at two levels: micro (as a response to a transaction-specific experience) and global (as a result of the customer’s cumulative experiences with a specific service).

In what loyalty is concerned, as suggested by Reichheld (2003), it “is the willingness of someone (...) to make an investment or personal sacrifice in order to strengthen a relationship”. When conceptualising it, two main dimensions are usually identified (Dick and Basu, 1994; Kyle et al, 2010): the attitudinal dimension and the behavioural dimension. The attitudinal dimension corresponds to psychological commitment and is represented by two major indicators of customer retention: customers’ intention to repurchase and customers’ willingness to recommend the service to other prospective customers (Howat and Crilley, 2007). On the other hand, the behavioural dimension is measured using indicators of the way the service is consumed, such as actual purchase or use frequency, duration and consistency.

Review of relevant literature focused on the sports and fitness context

Investigating the link between service quality, satisfaction and loyalty in the sport and leisure industry is particularly important. In fact, the sport industry (including health clubs, gyms, pools and other services) faces particularly high dropout rates, which, given the high costs of capturing new users, should encourage organisations to understand what drives customers’ loyalty.

In the sport and leisure context, Beard and Ragheb (1980, p. 22) defined satisfaction as: “the positive perceptions or feeling which an individual forms, elicits, or gains as a result of engaging in leisure activities and choices”. Howat and Crisley (2007) point out that satisfaction for aquatic centre customers at the process delivery level comes from specific

attributes of the service during the participation phase (e.g. friendliness of reception staff, social interaction with other customers), while at the outcome level corresponds to feelings of well-being resulting from exercising.

As mentioned earlier, according to the needs-satisfaction perspective, satisfaction is evaluated against the expected outcome. In the fitness case, for example, different kinds of reasons for exercising exist, such as physical change (embracing both beauty and functional health), mental change (including harmony and relaxation), and pleasure derived from social interaction, for instance. If, on the other hand, the appraisal perspective is used, satisfaction is the result of the evaluation that the customer makes of what he/she received in comparison to what he/she was expecting.

The factors to consider when assessing quality of leisure and sport services should naturally reflect their features. Leisure and sport services tend to be contact-intensive and suffer from considerable fluctuations on demand levels, throughout the day and the year. Following the dimensions suggested in Dotchin and Oakland (1994) model, leisure and sport centres can be characterised as low in terms of labour intensity (considering the ratio of labour costs incurred to the value of plant and equipment which is used), high in contact (meaning that the consumer is present in the system for a long time in service provision), and high in interaction (since the consumer actively intervenes in the service process to change the content of the service).

In what the identification of quality dimensions in sport and fitness services is concerned, there is a relative consensus around the importance of considering three main components suggested by Brady and Cronin (2001): physical elements, relational elements and outcomes (Alexandris et al., 2004; Kyle et al., 2010; Theodorakis et al., 2014). As Tsitsakari et al. (2014a) stress, both servicescape and relational quality play an important part in influencing customers' perceptions. It is rather intuitive that customers value the creation of a warm and friendly atmosphere in the sports facilities (including aspects such as cleanliness and good operating conditions of equipment). Moreover, physical elements provide tangible clues that customers use to 'pre-assess' the expected quality of intangible services prior to their consumption and to guide purchase/choice behaviours. Additionally, customers acknowledge the key role of staff expertise and behaviour to their physical and psychological well-being. The importance of outcomes was emphasised by Alexandris et al. (2004). 'Outcome Quality' emerged as an important factor to assess service quality in sports along with physical environment and interaction quality.

Both quality of the experience and outcome have been identified as the most important attributes of service quality among sport event consumers (Kelley and Turley, 2001). Tsitsakari et al. (2014a) have recently reported the results of their study applied to customers of Cyprian fitness centres, showing that not only the three main quality dimensions mentioned before are valid, but also service quality is (even if moderately) an antecedent of satisfaction and commitment. *Employees* have emerged as a key determinant of customer satisfaction and commitment. *Outcome* too was found to significantly contribute to customer satisfaction/dissatisfaction. In the same track, Theodorakis et al. (2015) investigated the specific factors of events participation that influence event satisfaction. Among them is interaction with others. The importance of others had already been suggested by Chang and Chelladurai (2003) in their research aimed at developing a scale of fitness-service quality. From a confirmatory factor analysis the following nine-dimensional scale emerged: (1) service climate, (2) management commitment to service quality, (3) programming, (4) personal interaction, (5) task interaction, (6) other clients, (7) service failure, (8) service recovery, and (9) perceived service quality.

Some studies following more closely the SERVQUAL instrument can be found in the literature. Most of them call attention to the need of adapting its dimensions and items to the

sports context (Tsitskari et al., 2006). As Voon et al. (2014) note, the SERVQUAL instrument is focused on what happens during the service experience, or the “process” of the service, since four of the five SERVQUAL dimensions are process dimensions, namely tangibles, assurance, empathy and responsiveness. Crompton et al. (1991) examined the stability of the SERVQUAL instrument and found statistical support for four of the five suggested factors of service quality: assurance, reliability, responsiveness and tangibles.

Alternative models have also been proposed. Ko (2000) proposed and tested the scale of service quality in participant sport (SSQPS) which measures service quality based on four generic dimensions: (a) programme quality – range of programmes, operating time and information; (b) interaction quality – client–employee interaction and inter-client interaction; (c) outcome quality – physical change, valence and sociability; and (d) environment quality – ambient condition, design and equipment. Similarly, Kim and Kim (1995) developed an instrument, entitled Quality Excellence of Sport Centers (QUESC), incorporating 11-factors and 33-item measures. The 11 dimensions were labelled: ambience, employee attitude, reliability, information, programming, personal consideration, privileges, price, and ease of mind, stimulation and convenience. Later, Afthinos et al. (2005) applied the QUESC instrument to analyse how sports services could be segmented based on socio-demographic characteristics of service users, the nature of sport service (private, public, non-for-profit) and the type of sport facility. Lam et al. (2005) developed the Service Quality Assessment Scale (SQAS) in order to determine the dimension of service quality of health-fitness clubs. The researchers found out that there are five factors that affect customers’ perceptions of the provided service quality of a fitness club: staff, programme, locker rooms, physical facility and workout facility. Papadimitriou and Karteroliotis (2000) study suggested a four-factor model (FITSSQ) based on the following constructs: instructor quality, facility attraction and operation, programme availability and delivery and other services. Other scales and instruments were also proposed to assess professional team sports and quality perceived by sports spectators, but these are beyond the focus of the current research.

Empirical studies to assess service quality of nautical services are very scarce. One of the few exceptions is that of Moreno et al. (2008). In their research focused on measuring the quality of nautical schools (which combine sport activities, accommodation and catering), the authors have identified ten quality dimensions: lessons, spare time, nautical environment, timetables, main meals, nautical equipment, complementary meals, reception services, cleanliness and theory lessons. Howat and Crilley (2007) and Howat and Assaker (2013) have also studied aquatic centres in Australia and suggest that service quality attributes in this context include the cleanliness of the pool water, facility cleanliness, and instructor experience and knowledge. In Portugal, a study was carried out in the municipal swimming pools of a large town by Oliveira (2003), who analysed the relationship between service quality and service value. The research measured service quality based on Alexandris et al. (2004) adaptation of the SERVQUAL instrument and service value based on SERV-PERVAL instrument developed by Petrick (2002). The aim was to understand which service quality dimensions had a major impact on which components of service value. Satisfaction and loyalty were not included in the study and the statistical analysis was relatively simple.

Overall, the lack of empirical studies focused on the activities/services that are offered in municipal swimming pools and the existence of mixed results regarding the effect of different quality dimensions on customer satisfaction and on loyalty justify the current research.

Proposed model

Based on the literature review, four main drivers of satisfaction are considered: relational quality, physical elements (*servicescape*), outcome quality, and customer-to-customer interaction (CCI). Therefore, with some adjustments, the Brady and Cronin (2001) framework is adopted. The main difference is the inclusion of the CCI dimension. It was decided to propose this new dimension given the importance suggested in the literature of socialization as a main factor to remain attached to an activity. In previous studies (e.g. Alexandris et al., 2004) social conditions were included in the analysis as part of the “physical environment quality dimension”, but, in the current research, it was decided to consider interaction among customers as an autonomous factor. It seems reasonable to admit that positive CCI (mainly related to the feeling of belonging to a group with similar interests) can lead to more satisfaction and, indirectly, to loyalty (see, for example, Curth et al. (2014) study within the health clubs context or Moore et al. (2005) research applied to hair salons). In line with most literature, satisfaction is regarded as a potential driver of loyalty, both as psychological commitment and positive word-of-mouth, as suggested in the attitudinal perspective. The proposed model is depicted in Figure 1.

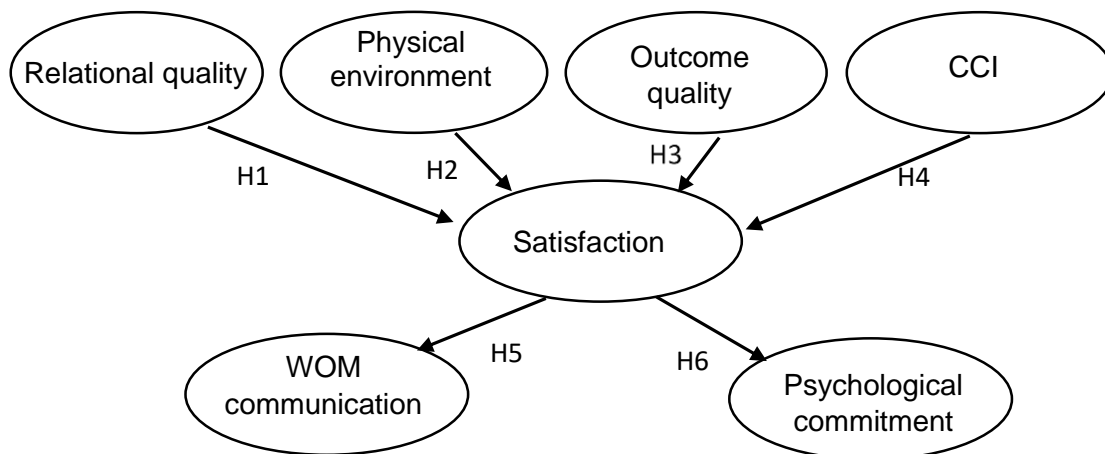


Figure 1. Proposed model

It follows a brief description of each service quality dimension:

- Relational quality corresponds to the interpersonal interactions that occur between the customer and the swimming pool staff. It is associated with the behaviours, attitudes and expertise of instructors, front-line administrative and cleaning staff. The higher the perceived quality of relational interaction, the higher customer satisfaction is expected to be (H1).
- Physical environment includes the most relevant tangible aspects that surround service provision. In the swimming pools case, these elements cover aspects such as water temperature, the quality of the equipment available, the comfort and hygiene of changing and locker rooms, etc. The level of customer satisfaction is expected to increase as the quality of these elements increases (H2).
- Outcome quality relates to the consequences of exercising, in terms of physical and psychological benefits. If the customer perceives that his/her overall well-being improves as a result of practising sport, he/she probably is more satisfied (H3).
- Customer-to-customer interaction (CCI) occurs since swimming pool customers share the facilities with other users and, in some cases, attend group classes. If CCI is

perceived as positive, the presence of other users is regarded as beneficial in terms of socialisation, integration or even as a source of additional motivation to improve the quality of sport practice. Positive CCI may thus lead to increased satisfaction (H4)

In line with most literature, which regards satisfaction as an important antecedent of loyalty, the following hypothesis are proposed:

- Satisfaction has a positive impact on (favourable) word-of-mouth communication (H5)
- Satisfaction increases psychological commitment (H6)

Table 1 describes the measurement items considered for each of the model dimensions. With the exception of the CCI scale (based on Moore et al., 2005), the remaining scales are very similar to those suggest in Alexandris et al. (2004) study.

Table 1. Scales used

Dimension	Measurement items
Relational quality	<ul style="list-style-type: none"> • Instructors respond quickly to users' requests (RQ1) • Instructors are trustful (RQ2) • Staff members are friendly (RQ3) • Staff members understand and respect users' needs (RQ4) • Staff members help users feel comfortable (RQ5) • Staff members are knowledgeable (RQ6) • Staff members provide individualised attention (RQ7)
Physical environment	<ul style="list-style-type: none"> • The facilities are attractive (PHYS1) • The facilities and equipment are well-maintained (PHYS2) • Ambient conditions are pleasant (PHYS3) • The facilities are modern with up-to-date equipment (PHYS4) • The facilities are clean (PHYS5) • The facilities are spacious (PHYS6)
Outcome quality	<ul style="list-style-type: none"> • Using this swimming pool contributes to my self-esteem (OQ1) • Using this swimming pool helps me keep healthy (OQ2) • Using this swimming pool helps me feel less stressed (OQ3) • Using this swimming improves my fitness level (OQ4)
CCI	<ul style="list-style-type: none"> • Other customers do not affect the regular functioning of swimming pool activities (CCI1) • I have developed friendships with other users I met at the swimming pool (CCI2) • I enjoy spending time with other swimming pool users (CCI3) • The other swimming pool users make my time there more enjoyable (CCI4) • There is a good chance I will run into one of my friends at the swimming pool (CCI5)
Satisfaction	<ul style="list-style-type: none"> • I am satisfied with my decision to become a user of this swimming pool (SAT1) • I feel disappointed with my decision to become a user of this swimming pool (SAT2) • If I was to choose a swimming pool again, I would choose a different one (SAT3) • My choice to become a user of this swimming pool was a wise one (SAT4)
Word-of-mouth communication	<ul style="list-style-type: none"> • I am willing to recommend this swimming pool to other people (WOM1) • I am willing to encourage friends and relatives to become users of this swimming pool (WOM2) • I am willing to say positive things about this swimming pool to other people (WOM3)
Psychological commitment	<ul style="list-style-type: none"> • It would be hard for me to quit being a user of this swimming pool (COMMIT1) • I am committed to keep being a user of this swimming pool (COMMIT2) • I am willing to do some sacrifices to keep being a user of this swimming pool (COMMIT3)

Data collection and analysis

The empirical study was carried out in four municipalities of the Centre Region (Aveiro district). A questionnaire survey was applied to the users of the four municipal swimming pools. Both individual free users and users enrolled in the various classes (swimming, water aerobics, hydrotherapy, etc.) were considered.

According to the scales adopted in the study (see Table 1 above), a questionnaire with 32 closed questions was designed. Each question was answered in a 7-points Likert scale according to the respondent level of agreement with the corresponding statement. A few questions were also included in the questionnaire with the purpose of collecting data on the demographic characteristics of the swimming pools users, frequency of use and type of class attended. A specific version of the questionnaire was prepared to be administered to parents and other accompanying persons of children under 12 years-old.

Data collection took place in May and June 2016. Questionnaires were administered using three channels: face-to-face in the swimming pools premises by one of the researchers; handed-out by the receptionists and made available online by the city hall. In all cases, procedures were implemented to ensure the confidentiality of the responses.

Around 6800 persons use the four swimming pools considered in this study. From this universe, 384 valid questionnaires were obtained, which corresponds to a response rate of around 5.6%. Table 2 shows the main characteristics of the sample.

Table 2. Characteristics of the respondents

		N. of responses	Percentage (%)
Gender	Male	138	36.0
	Female	246	64.0
Education level	Basic Education	54	14.0
	Secondary Education	75	19.6
	Higher Education	90	23.4
	Not answered	165	43.0
Time of the day	Morning	152	39.6
	Afternoon	139	36.2
	Evening	93	24.2
Frequency of use	Once a week	136	35.4
	Twice a week	210	54.7
	Three times or more a week	38	9.9
Type of class attended	Swimming lessons	247	64.3
	Group classes	109	28.4
	Free use	28	7.3
Length of use	Less than 3 months	14	3.6
	Between 3 months and 1 year	69	18.0
	More than a year	301	78.4

As it can be observed, the majority of the respondents are female and most people have high educational levels. The average age of the users is 28 years old (the youngest user is 8 months old and the oldest is 84 years old). This indicates that swimming pools are essentially attracting young people (a substantial part children and teenagers learning how to swim) and

have more difficulty in capturing mature people for other kinds of usages (such as group classes of water aerobics). Most respondents use the swimming pool twice a week and the vast majority for more than a year, which probably means that the majority of the respondents are relatively loyal users.

Data thus collected were analysed using the SPSS and the AMOS programs. The quality of the scales was assessed by computing the Cronbach-alpha and the item-total correlations. The quality of the model was also analysed based on the χ^2/df , RMSEA and CFI indexes.

Main findings

In what the main service quality dimensions is concerned, taking into account the scores obtained for each Likert-scale question (see Table 3), it is possible to state that swimming pool users have very positive perceptions of the various service elements. In fact, out of possible 7 points, means for the various measurement items range from 5.30 (*PHYS2 - The facilities and equipment are well-maintained*) to 6.57 (*OQ2 - Using this swimming pool helps me keep healthy*).

Table 3. Service quality scores

	Mean	Standard deviation
Relational quality (6,07)		
RQ1	6.07	.98
RQ2	6.30	.87
RQ3	6.24	.98
RQ4	6.00	1.02
RQ5	6.07	1.04
RQ6	6.02	1.00
RQ7	5.78	1.17
Physical environment (5.55)		
PHYS1	5.57	1.41
PHYS2	5.30	1.41
PHYS3	5.97	1.11
PHYS4	5.40	1.42
PHYS5	5.56	1.45
PHYS6	5.55	1.35
Outcome quality (6.48)		
OQ1	6.30	.91
OQ2	6.57	.67
OQ3	6.51	.72
OQ4	6.54	.68
Customer-to-customer interaction (5.98)		
CCI1	5.84	1.08
CCI2	6.19	.90
CCI3	5.87	1.13
CCI4	5.85	1.10
CCI5	6.16	.88

Outcome quality is also the dimension with the highest overall score, indicating that respondents are pleased with improvements they feel in their physical and psychological conditions that result from using the swimming pool. Relational quality is the second best dimension according to users' views. Results show that users think instructors are trustful and friendly (RQ2 and RQ3) and try to give individual attention to each user, although they might not always achieve such purpose (RQ7). CCI items indicate that users value the friendships they have developed with other users (CCI2 and CCI5), even if the presence of other customers occasionally might affect service quality levels (CCI1). Physical environment is the lowest ranked dimension, with an overall score of 5.55. Users are somehow worried with the maintenance of facilities and equipment (PHYS2) and with the existence of not so up-to-date infrastructures (PHYS4). This finding may point out to the lack of local government resources to invest in this area in recent years, contrarily to what happened in the late nineties and beginning of the twenty-first century.

Similarly, satisfaction and loyalty scores are high (see Table 4). Satisfaction items get overall better scores than loyalty items. Users are particularly pleased with the decision they made of practising aquatic activities in the swimming pool (SAT1). Recommendation levels are equally high (around 6 out of 7). Psychological commitment, while remaining very significant, gets comparatively lower scores.

Table 4. Satisfaction and loyalty scores

	Mean	Standard deviation
Satisfaction (6.05)		
SAT1	6.32	.82
SAT2	6.15	1.48
SAT3	5.57	1.77
SAT4	6.17	.90
Word-of-mouth communication (6.02)		
WOM1	6.10	1.00
WOM2	6.05	1.02
WOM3	5.91	1.12
Psychological commitment (5.80)		
COMMIT1	5.56	1.50
COMMIT2	5.77	1.45
COMMIT3	6.07	1.01

Prior to model estimation, it was necessary to assess the psychometric features of the proposed scales. As shown in Table 5, except for the psychological commitment scale (which still has an acceptable Cronbach-alpha score), all dimensions exhibit high consistency indexes, well above the cut-off point suggested of 0.7.

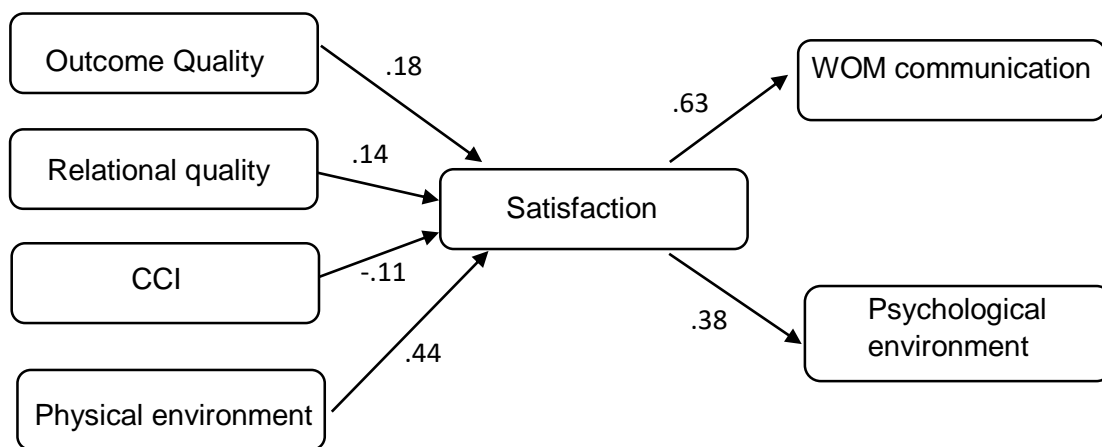
Table 5. Internal consistency of the scales

Dimension	Cronbach-alpha
Relational quality	0.87
Physical environment	0.93
Outcome quality	0.88
CCI	0.84
Satisfaction	0.70
WOM communication	0.95
Psychological environment	0.67

In order to estimate the proposed model, confirmatory factor analysis was used. Factor loadings for each item (not presented here due to obvious constraints) are all above 0.4, as suggested in most literature. Model goodness-of-fit coefficients are very satisfactory ($X^2/df = 3.26$; CFI = 0.88 and RMSEA = 0.08). Moreover, all model dimensions are positively and significantly correlated with each other.

The path coefficients for the structural equation model are depicted in Figure 2. Three of the four service quality dimensions proposed indeed have a positive impact on satisfaction. Looking at the p-values associated with each path coefficient (all below 0.05) it is possible to conclude that data supports all the hypotheses put forward (see Figure 1) with the exception of H4. In fact, the existence of a negative association between CCI and satisfaction contradicts the theoretical arguments found in the literature and findings from previous studies (even if conducted within different contexts). Therefore, further evidence is necessary to shed some light into the matter.

Figure 2. Structural equation model estimation (path analysis)



Conclusions

The aim of the current study was to investigate the determinants of customer loyalty in the sports and leisure context. In particular, the links between service quality dimensions, satisfaction and loyalty were analysed with reference to municipal swimming pools.

A questionnaire survey based on Brady and Cronin (2001) framework was applied to a sample of 384 users of four different municipalities of the Centre Region of Portugal. A tentative new dimension was added to Brady and Cronin model – Customer-to-Customer Interaction -, which was expected to further contribute to customer satisfaction and thus, indirectly, to loyalty. Structural equation modelling was applied to estimate the embedded path coefficients.

It was found that users have very positive perceptions of the service provided by municipal swimming pools, in particular in what relational quality is concerned. The consequences of swimming activities over physical and psychological well-being indicators are also highly valued. The weakest point refers to some physical environment features calling attention to the need of renovating some infrastructures and carefully maintaining some equipment. Thus, some implications for the municipalities involved can be derived in terms of resources allocation. Investing more on the variables with a strongest impact on users' satisfaction can

enhance users' perceptions of service quality and indirectly contribute to a more regular and effective sports practice.

Data gives support to the vast majority of the hypotheses proposed and the overall model-fit indexes are promising. In particular, the three service quality dimensions suggested by Brady and Cronin are valid in the swimming pools context. In addition, the link between satisfaction and (attitudinal) loyalty is supported. Only the CCI-satisfaction link finds no support in the data. Specific sample features might be contributing to this. The unexpected result should be further investigated in future studies.

The current study makes a significant contribution to the sports management literature by analysing the simultaneous relationships among service quality dimensions, customer satisfaction and loyalty, a surprisingly overlooked topic.

On the other hand, some research limitations can be highlighted. First, the study was conducted in four relatively homogenous municipalities and findings generalisation has to be dealt with care. Besides, although the explanatory power of the model is clearly acceptable, some relevant links and/or additional dimensions might have been omitted. Further studies can be useful in this regard.

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