Examining the relationship between perceived service quality, satisfaction, and renewal intention in Portuguese fitness centers

Cláudia Dias¹, Arnaldino Ferreira², Artur Romão Pereira³ y António Manuel Fonseca⁴

Abstract
This study adopted the service quality model proposed by Chang, which specifies a three-stage systems view of the fitness services as inputs, throughputs and outputs, to analyze the relationships between service quality (inputs), customer satisfaction (throughputs) and renewal intention (outputs). Two-hundred and sixty three subjects completed the Portuguese versions of the Scale of Quality in Fitness Services, the Clients Satisfaction Scale, and the Renewal Intention Scale. The results showed that personal involvement satisfaction was predicted by a combination of task interaction, perceived service quality and contact with other clients; service satisfaction was predicted by perceived service quality, management commitment to service quality and interpersonal interactions, and renewal intention was predicted by service satisfaction. Accordingly, these results can make an important contribution to the retention of customers in fitness clubs, suggesting that, to increase customers’ satisfaction with their own personal involvement and with the services provided, managers should be committed to implement quality initiatives, but also pay attention to the human factor. The results are discussed in view of the literature on the subject and the different perspectives of customers themselves and the clients’ task and interpersonal interactions with the service employees.

Keywords: Service quality, satisfaction, renewal intention, fitness

In the last few decades, the fitness industry has witnessed a remarkable growth in participation and interest all over the world (García-Fernández, Gálvez-Ruiz, Fernández-Gavira and Vélez-Colón, 2016; Lagrosen and Lagrosen, 2007), with statistical indicators pointing out that the number of health clubs, gyms, and other fitness centers, as well as the amount of people deciding to join a fitness center, have risen significantly in the past 30 years. In 2013 alone, the health club industry attracted 140 million members and generated nearly $78 million revenues worldwide (International Health, Racquet, and Sportsclub Association [IHRSA], 2014).

In view of this immense profitability, it is not surprising that competition in this sector becomes fiercer every day, with fitness centers struggling to gain new clients and, especially, to hold on to the members they already have. Indeed, evidences suggest that marketing resources are better allocated, and a better return will be achieved, by investing in existing customers (i.e., retaining participants and transforming them into loyal customers) rather than by acquiring new ones (Elben, 2000). In other words, customer retention is critical for future profitability and viability (Lam, Zhang and Jensen, 2005). Hence, in order to understand and reduce the high customer turnover, researchers in this area have been trying to better comprehend the antecedents of customers retention, focusing particularly on service quality and customer satisfaction as precursors of the long-term lucrativeness and financial performance of an organization (Babakas, Bienstock and Van Scotter, 2004; Shonk, Wallace Carr and De Michele, 2010).

Traditionally service quality was defined as the comparison between customers’ expectations and the service they have received (Parasuraman, Berry and Zeithaml, 1988). More recently, some researchers criticized the need to compare the customers’ perceptions with their expectations, stating that service quality should be understood as a process whereby customers either compare the performance with ideal standards or simply rate their perceptions of the quality of a series of attributes for a product or service (Zeithaml, Bittner and Gremler, 2006). As a consequence, the idea that service quality respects to a multidimensional global judgment or attitude about the superiority of a service became consensual (García-Fernández, Fernández-Gavira and Bernal-García, 2014; Gencer, 2011).

Over the last years, service quality has become crucial to many organizations, being considered one of the best tools to sustain and increase the number of customers, develop competitive advantage and generate sustainable revenue (Babakas et al., 2004; Soita, 2012; Yu, Zhang, Kim and Huang, 2014).
On the other hand, customer satisfaction is the overall assessment of the service provider in terms of the customers’ cumulative experiences with a specific service (Li and Petrick, 2010; McDougall and Levesque, 2000). Research has supported that perceptions of service quality increase the feelings of satisfaction, which, in turn, determine customer’s future intentions and behaviours towards the service provider (Brady and Robertson, 2001; Howat et al., 2002; McDougall and Levesque, 2000; Murray and Howat, 2002). In such case, customers are more likely to become involved, to buy the service repeatedly or to take part in services offered by the organization (and even to experiment other products or services offered by the same company) (Serrano-Gómez, Rial Boubeta, García-García and Gambau i Pinasa, 2013; Theodorakis, Howat and Avoordiados, 2014). Moreover, customers transmit positive word-of-mouth information more often than negative information, pay for the benefits that they receive, and are more open-minded of price increases (Lam et al., 2005; Yu et al., 2014; Zeithaml et al., 2006).

Nonetheless, it should be noted that the context of service provision in fitness clubs is complex and unique in the sense that it requires physical interaction between the provider and the customer and members are actively involved in the production and consumption of the services (Chang and Chelladurai, 2003; Lagrosen and Lagrosen, 2007). In order to meet the needs and expectations of the customers, fitness-service operations require further and particular research (Lam et al., 2005; Theodorakis et al., 2014) to understand how fitness centers’ customers evaluate their services and to identify strengths and areas for improvement (i.e., which components of those services contribute more significantly to their customers’ perceptions and final satisfaction) (Alonso Fernández, Rial Boubeta and Rial Boubeta, 2016). This will allow to better allocate resources to increase retention of members and improve their competitive advantage (Albayrak and Caber, 2014; McDougall and Levesque, 2000; Petrick and Backman, 2002).

The purpose of the current study was to evaluate service quality and customer satisfaction as antecedents of renewal intention, determining if and how these three constructs interacted between themselves. To accomplish these goals, we adopted the framework proposed by Chang (1998; Chang and Chelladurai, 2003), which includes a three-stage (or systems) view of the dimensions of fitness services. Specifically, this framework conceive the elements in fitness service operations as inputs, throughputs and outputs. The inputs correspond to service development and/or designing stage, where management inputs to the delivery system comprises the development of service climate, a commitment to service quality, and the design of the services. The throughputs are the service experience itself, where inputs are operated and converted into outputs, entangles the contact with facilities and equipment (i.e., the physical environment), service failures and the actions taken in response to them, and the interactions between the customer and the service provider(s) and between the clients. Finally, the outputs correspond to results of the service, such as profits and renewal intention. According to Chang (1998), customers evaluate what they receive at the output stage, but also at the input and throughput stages of service delivery. These evaluations have an impact on their satisfaction judgements, both with the services provided and with their personal involvement with the fitness center, and, eventually, on their behavioural intentions of renewing their membership.

In sum, this framework permits to explore in detail which service quality components can contribute more significantly to the satisfaction of customers and to their renewal intention thought the identification of areas that are weak and in need of attention in different stages of the service provision. It is very important for an organization to determine which components of a product or attributes of a service significantly contribute to customer satisfaction (Petrick and Backman, 2002), and, alongside, to renewal intention (which is essential to a continued stream of profitability). Zeithaml et al. (2006) commonly cited economic benefits of customer retention include (a) reduced marketing and administrative costs, (b) the ability to maintain margins without reducing prices, (c) increased purchases over time, and (d) reduced costs to attract new customers.

To date, numerous studies used have focused on identifying dimensions of quality in the sport and fitness industries (e.g., Alexandris et al., 2004; Chang and Chelladurai, 2003; Lagrosen and Lagrosen, 2007; Lee, Kim, Ko and Sagas, 2011). However, the existing research can be considered rather disparate and no agreement regarding the dimensions of quality in the area has been reached (Lam and Ocker, 2004; Polyakova and Mirza, 2016). According to Ferrand, Robinson and Valette-Florence (2010), determining which attributes of a service are important still presents challenges when seeking to uncover the likely impact on future intention. In addition, few investigations tried to investigate the relationship between the specific dimensions of service quality, satisfaction and renewal intentions proposed by Chang (Chang and Chelladurai, 2003).

Responding to the need for further empirical investigation, the present study, by adopting Chang’s (2000) model, investigates the relationship among service quality, satisfaction, and behavioral intention in fitness centers currently operating in Portugal. It is vitally essential for fitness centre managers to comprehend and measure the impact of different service quality dimensions on the satisfaction of their customers and revisit intentions. In this context, it is expected that the results of this study will help clarify the role of key drivers that explain customer renewal intentions, providing fitness center industry with insightful information and acting as a diagnostic tool that will permit managers to deliver more effective services to customers in fitness clubs and organizations.
through the original scale encompasses five items, the RIS, is composed of four items aggregated in one dimension. Respondents rate how each statement generally applies to them on a seven-point scale ranging from (1) Completely Disagree or Completely False to (7) Completely Agree or Completely True.

Data Collection and Analysis
This study was approved by the Faculty of Sport, University of Porto (Portugal) Research Ethics Committee. Along with the paper-and-pencil questionnaire, participants received an accompanying letter that explained the purpose of the survey and assured anonymity. They were instructed to place the completed questionnaires in an urn for confidentiality of responses.

The SPSS statistical package was used to perform the statistical analysis. Descriptive statistics were used to analyse the data, including frequencies, percentage, means, and standard deviations. In order to analyse the relationships between service quality, satisfaction and renewal intention, three linear regression analyses were performed. First, two regressions were performed on the relationships among the two dimensions of satisfaction (dependent variable) and the nine service quality dimensions (independent variable); afterwards, we conducted a regression to analyse the relationships between renewal intention (dependent variable), and the two satisfaction dimensions (independent variable). The regressions were performed separately to examine each dimensions potential unique contribution. For all tests, a significance level of .05 was used.

Results
The descriptive statistics for all the psychological variables in this study are presented in Table 1. In general, the results revealed a very favourable assessment of the two fitness centres involved in this study. Nevertheless, when analysing service quality, the interpersonal interaction dimension, representative of the throughout stage of service delivery, positively stood out from the rest. Inversely, the contact with other clients was the dimension of service quality least positively evaluated. Also, customers’ satisfaction with their personal involvement was somewhat higher than the satisfaction with the services provided.

Table 1

<table>
<thead>
<tr>
<th>SCALES Sub-Scales</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
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<tbody>
<tr>
<td>SCALE OF QUALITY IN FITNESS SERVICES</td>
<td>Management Commitment to Service Quality</td>
<td>5.66</td>
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<td></td>
<td>Service Climate</td>
<td>5.87</td>
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La incidencia de las situaciones psicomotrices de expresión sobre los estados de ánimo de los estudiantes universitarios

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<tr>
<td><strong>Program - Activities</strong></td>
<td></td>
<td>5.75</td>
<td>± 1.01</td>
</tr>
<tr>
<td><strong>Interpersonal Interaction</strong></td>
<td></td>
<td>6.11</td>
<td>± 1.01</td>
</tr>
<tr>
<td><strong>Task Interaction</strong></td>
<td></td>
<td>5.89</td>
<td>± 1.10</td>
</tr>
<tr>
<td><strong>Contact With Physical Environment</strong></td>
<td></td>
<td>5.57</td>
<td>± 1.52</td>
</tr>
<tr>
<td><strong>Contact With Other Clients</strong></td>
<td></td>
<td>5.20</td>
<td>± 1.27</td>
</tr>
<tr>
<td><strong>Service Failure and Recovery</strong></td>
<td></td>
<td>5.47</td>
<td>± 1.27</td>
</tr>
<tr>
<td><strong>Perceived Service Quality</strong></td>
<td></td>
<td>5.75</td>
<td>± 1.30</td>
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**CLIENTS SATISFACTION SCALE**

| Service Satisfaction | 5.98 ± 1.19 |
| Personal Involvement Satisfaction | 6.13 ± 0.84 |

**RENEWAL INTENTION SCALE**

| Renewal Intention | 6.15 ± 1.25 |

The results of the first regression analysis revealed a high multiple correlation ($R = .94$) between the dependent variable (service satisfaction) and the nine quality dimensions considered as independent variables (Figure 1). The values for the coefficient of determination ($R^2$) and for the adjusted coefficient of determination ($R^2_a$) were also reasonably high, implicating that the service quality dimensions explained a high proportion of service satisfaction. Nonetheless, the analysis of the Beta values showed that only those values related to management commitment with service quality, interpersonal interaction and perceived service quality were significant. In other words, these variables seemed to be the most important service quality variables in determining customers’ service satisfaction.

With regard to personal involvement satisfaction, not all variables showed a statistically significant regression value (Figure 2). In effect, only task interaction, contact with other clients and perceived service quality dimensions had a significant influence on customers’ satisfaction towards their personal involvement with the fitness center. In any case, it should be noted that, in comparison with the previous analysis, where service satisfaction was the dependent variable, the proportion of personal involvement satisfaction variance explained by the service quality variables was lower.
Finally, the results of the third regression analysis showed that service satisfaction, but not personal involvement satisfaction, predicted renewal intention, explaining a high proportion of variance (Figure 3).

![Diagram showing regression analysis and relationships between variables](image)

**Figure 2.** Regression analysis ($F; R; R^2; R^2_a; \beta$ [standardized regression values]). Dependent variable: Personal Involvement Satisfaction. Independent variables: Quality sub-scales.

**Figure 3.** Regression analysis ($F; R; R^2; R^2_a; \beta$ [standardized regression values]). Dependent variable: Renewal Intention. Independent variables: Satisfaction sub-scales.

The results suggest that, in general, customers had a very favourable impression and were very satisfied with the services provided by their fitness centers, corroborating earlier studies (e.g., Brady and Robertson, 2001; Grönroos, 2015; Howat et al., 2002; McDougall and Levesque, 2000; Murray and Howat, 2002; Zeithalm et al., 1996). On the other hand, the high renewal intention was not consistent with the indication that, in fitness centers, the retention rates are usually very low (Alexandris, Zahariadis, Tsorbatzoudis and Groui-
such differences can be explained by the remarkable growth in fitness centers (i.e., appropriation of the service provider, more refined marketing resources, etc.) over the last years, particularly in the private setting (Yu et al., 2014), the context where this study was conducted.

Furthermore, as regards the service quality dimensions, interpersonal interactions - representing the throughput stage of service delivery -, clearly stood out. Past research has shown that interpersonal interactions are associated with a set of employees' attributes, including courtesy and honesty, provision of prompt services, and willingness to help the client and satisfy their wishes, behaviours with a positive impact on the customers' perceptions of service quality (Chang and Chelladurai, 2003). In this sense, our results suggest that participants had a high level of perception regarding the relational skills of the staff (namely the employees, teachers, instructors and other workers of the fitness centers) involved in this study. On the other hand, clients' perceptions about the contact with other clients was the least favourably evaluated dimension. This dimension respects the relationship between customers throughout the service provision and may be negatively influenced by the language and/or behaviour of some (e.g., improper use of the facilities, monopolization of certain apparatus) disturbs other customers (Chang, 1998). Contrariwise, it can be positively influenced if the attitudes and behaviours of the other clients are perceived favourably, or if they constitute an incentive or support (e.g., assistance in handling the equipment or programming a machine).

As regards the association between the constructs of service quality satisfaction and renewal intention, the findings corroborated that service quality perceptions influence satisfaction (Alexandris et al., 2004; García-Fernández et al., 2012), which, in turn, affects customers' future intentions in the sense that more satisfied customers have more favourable behavioural intentions towards the permanence in the organization (Babakas et al., 2004; Brady and Robertson, 2001; Howat et al., 2002; MacDougal and Levesque, 2000; Murray and Howat, 2002; Shonk et al., 2010; Zeithaml et al., 2006).

Specifically concerning customers' satisfaction with their personal involvement in the fitness center, the results accentuated the significance of the interface between the service provider and the client, namely regarding the task, and between the clients themselves (both in the throughput stage), concomitantly with a high level of perception about service quality (in the output stage). Bearing in mind that personal involvement satisfaction is related to the participation of the clients in the production of the service, which (also) includes the setting of personal goals (e.g., performance and skill improvement, commitment to physical activities) (Chang, 1998; Chang and Chelladurai, 2003), it is not surprising that this variable was predicted mainly by the employee's performance of the tasks associated with the service (e.g., if the client wants to lose weight, he or she values, above all, information about equipment and exercise routines that will allow him or her to achieve that goal). Yet, the interactions between the clients, such as disrespectful or rude behaviours of some clients towards others the service experience, should also be taken into account.

As regards service satisfaction, the results emphasized the importance of the customers' overall impression of the inferiority or superiority of the services provided (i.e., perceived service quality). This overall impression seemed to be associated with the commitment of the management to implement quality initiatives (i.e., operational and strategic options) in the input stage, and with the customers' interpersonal interactions with the staff (i.e., employees' willingness to help, provision of prompt services, courtesy, flexibility, etc.) during the throughput stage. Confirming our results, Chang (1998) found similar relationships between the above-mentioned dimensions of quality and a latent construct of overall quality.

From a practical standpoint, this study may assist fitness center managers, providing meaningful information for a better understanding of the customers and the development of effective management strategies, confirming Chang and Chelladurai's (2003) claims about the possibility that the nine dimensions identified in the input-throughput-output conceptualisation of the fitness service system can be used individually for diagnosing specific processes in a fitness operation. Specifically, the results suggest that, in order to increase customers' satisfaction, especially regarding their satisfaction with the services provided, managers should begin by examining their own commitment in providing such quality services (i.e., their operational and strategic options, either regarding the clients and/or the staff). In addition, special attention should be paid to the interactions between the client and the service employees - both regarding the task in hand and interpersonal interactions -, and the interactions amongst the clients themselves. Alongside with customers' overall impression of the services provided, these aspects might be determinant vis-à-vis customers' satisfaction with the services and with their personal involvement and, ultimately, with their renewal intention.

In other words, managers should commit themselves to implement operational and strategic quality initiatives which aim to improve overall service quality, and to create an environment where employees feel connected to the organization and to the customers. This environment can be achieved by establishing and maintaining a customer-oriented approach, in which the strategies for improving quality are part of the organization's strategy. Customer-contact employees focus on delivering a superior service quality, try to grant the customers' needs and wishes, spend sufficient time with the customers, and present detailed information about the services delivered, doing everything they can to identify and amend service gaps and recover situations where something went wrong. Besides, it is also crucial that they take an interest in the customers, are courteous and flexible, and are willing to help and attentive to any source...
of dissatisfaction regarding the interactions amongst the clients. After identifying members who may be dissatisfied or are less tolerant, for example, employees spend sufficient time with them, presenting more information about the services available, and dealing with their requests and complaints (Karatepe, 2011). However, special attention should be paid to the customers’ perceptions of what constitutes the core service, in the sense that different customers may perceive different targets of the same service as the core service (Chang and Chelladurai, 2003).

Along these lines, and in view of the importance of the human element in the reliability of the services delivered, it is imperative to recognize the significance and value of the employees, training them and guaranteeing that they respond appropriately, working hard and enthusiastically. Managers could implement and promote specific training programs (i.e., addressing not only product knowledge and technical skills but also interpersonal skills and effective customer management), and teach the staff how to manage customers based on a differentiated approach appertaining to service quality dimensions in different segments (García-Fernández et al., 2012; Karatepe, 2011). Along these lines, Chang and Chelladurai caution that the focus on the individual client may be most appropriate when a service is provided on an individual basis (e.g., fitness instruction to an individual customer), a customisation that would certainly change the nature of the service and its context from one client to another to suit the distinctive needs and/or preferences of the individual client. Moreover, managers should use management audits to repeatedly evaluate and oversee the whole service environment from the perspective of the customers (Kim, LaVetter and Lee, 2006).

Conclusions

In sum, the results of the present study suggest that the enhancement of service quality is a crucial strategy for increased levels of customer satisfaction and the establishment of a long-term relationship. Specifically, a continuous improvement in aspects such as employee commitment and training, and the individualization of treatment can help fitness centres satisfy their members’ expectations and improve their perceptions about the quality of the services. If customers are satisfied, especially if they are satisfied with the services provided, there is an increased probability that they will renew their membership.

On the other hand, it should be noted that, in the present study, data were collected from a convenience sample of customers from two fitness centres. Hence, the results are indicative and results and generalisations should be taken with great care. Further research should replicate this study in public fitness centers, using a broader sample, and in different sociocultural settings (i.e., across cultures), so that service characteristics and their influences on customer’s satisfaction can be compared. Another limitation is that this was a cross-sectional study, and so we did not evaluate service quality in a longitudinal fashion. Longitudinal research is needed to identify critical changes over time that will enable researchers and managers to satisfy consumers’ needs and enhance their fidelity to the service provider.

Examinando la relación entre la calidad del servicio, la satisfacción y la intención de renovar en centros de fitness portugueses

Resumen
Este estudio adoptó el modelo de calidad de servicio propuesto por Chang, lo cual especifica una visión sistémica en tres etapas de los servicios de fitness como inputs, throughputs y outputs, para analizar las relaciones entre la calidad del servicio (inputs), la satisfacción y la intención de renovación (outputs). Doscientos sesenta y tres sujetos completaron las versiones portuguesas de la Scale of Quality in Fitness Services, de la Clients Satisfaction Scale y de la Renewal Intention Scale. Los resultados mostraron que una combinación de interacciones relacionadas con la tarea, la calidad del servicio y el contacto con otros clientes eran los antecedentes más importantes de la la satisfacción con el envolvimiento personal. Además, la calidad percibida del servicio, el compromiso de la gerencia con la calidad del servicio y las interacciones interpersonales eran las variables más influyentes en la predicción de la satisfacción con el servicio; finalmente, la satisfacción con el servicio antecedía la intención futura. Estos resultados pueden aportar una importante contribución a la retención de clientes en clubes de fitness, sugiriendo que, para incrementar la satisfacción de los clientes con su envolvimiento personal y con los servicios prestados, los gestores deben no sólo comprometerse a implementar iniciativas de calidad, pero también prestar atención al factor humano, particularmente a las interacciones entre los propios clientes y a las interacciones interpesso- nales y relacionadas con la tarea de los clientes y con los miembros del staff.

Palabras clave: Calidad de servicio, satisfacción, intención de renovación, fitness

Análise da relação entre a qualidade de serviços, a satisfação e a intenção de renovar em centros de fitness portugueses

Resumo
Este estudo adotou o modelo de qualidade de serviços proposto por Chang, o qual especifica uma visão sistémica dos serviços de fitness em três fases, como inputs, throughputs e outputs, para analisar as relações entre a qualidade de serviços (inputs), satisfação (throughput) e intenção de renovação (saídas). Duzentos e sessenta e três sujeitos completaram as versões portuguesas da Scale of Quality in Fitness Services, da Clients Satisfaction Scale e da Renewal Intention Scale. Os re-
sultados mostraram que a satisfação com o envolvimento pessoal era predita por uma combinação de interação na tarefa, qualidade de serviços e contato com outros clientes; a satisfação com os serviços era predita pela qualidade de serviços, compromisso da gestão com um serviço de qualidade e interações interpessoais; finalmente, a atenção à renovação era predita pela satisfação com os serviços. Assim, estes resultados podem dar um contributo importante para a retenção de clientes em clubes de fitness, sugerindo que, para aumentar a satisfação com o seu envolvimento pessoal e com os serviços prestados, os gestores devem comprometer-se com a implementação de iniciativas de qualidade, mas também prestar a atenção a o fator humano, nomeadamente às interações entre os próprios clientes e às interpessoais (pessoais e relacionadas com a tarefa) entre os clientes e o staff.

**Palavras-chave:** Service quality, satisfaction, renewal intention, fitness

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