## An analysis of active consumer behavior in a fitness boutique: satisfaction levels, perceived quality dimensions, and dropout reasons

Un análisis del comportamiento del consumidor en activo de una fitness boutique: niveles de satisfacción, dimensiones de

la calidad percibida y motivos de abandono \*Silvio Addolorato , \*\*Nerea Hormigón-Gimeno

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Abstract. The European fitness market is experiencing continuous growth, prompting enhancements in service quality at boutique gyms. These establishments are recognized for their personalized attention, professional staff, and innovative technology use. The perceived quality in these gyms significantly influences client satisfaction and loyalty, which are critical for retention. The aim of the contribution is to understand satisfaction levels, perceived quality dimensions, and dropout reasons inside this business model. The study sample comprises 67 adults, aged 18 to 70 years, predominantly aged 41-50. The EPOD2 Questionnaire and Dropout Reasons Scale were utilized for data collection. An analysis of a boutique fitness center in Zaragoza (Spain), indicates high demand, particularly among women. Most users positively rate the service, especially commending the staff, though communication is rated lower. Higher satisfaction is associated with increased loyalty, and reasons for dropout include distance and congestion, consistent with previous studies. The study has some limitations, including: sample size, gender imbalance, and a lack of longitudinal data. Further approaches should encompass larger samples, longitudinal designs, and broader comparisons to enhance the understanding of satisfaction and loyalty in boutique fitness centers.

Keywords: consumer behavior, dropout reason, fitness boutique, fitness industry, satisfaction level, quality dimension

**Resumen.** El mercado europeo del fitness experimenta un crecimiento continuo, lo que impulsa la mejora de la calidad del servicio en gimnasios boutique. Estos centros se distinguen por su atención personalizada, profesionalidad y el uso de tecnología innovadora. La percepción de calidad en estos gimnasios influye en la satisfacción y lealtad de los clientes, aspectos cruciales para la retención. El objetivo de la contribución es comprender los niveles de satisfacción, las dimensiones de calidad percibida y las razones de deserción dentro de este modelo de negocio. La muestra del estudio incluye 67 adultos, cuyas edades oscilan entre los 18 y 70 años, predominando aquellos de 41-50 años. Se utilizó el Cuestionario EPOD2 y la Escala de Motivos de Abandono. El análisis de un centro fitness boutique ubicado en Zaragoza (España) revela una alta demanda, especialmente entre mujeres. La mayoría de los usuarios valoran positivamente el servicio, destacando al personal, mientras que la comunicación recibe una valoración más baja. La fidelización se relaciona con una mayor satisfacción, y los motivos de abandono incluyen la lejanía y la congestión, coincidiendo con estudios previos. El estudio presenta limitaciones: tamaño muestral reducido, desproporción de género y enfoque longitudinal. Se sugieren abordajes futuros con muestras mayores, investigaciones longitudinales y comparaciones más amplias para mejorar la comprensión de la satisfacción y fidelización en centros de fitness boutique.

Palabras clave: comportamiento del consumidor, fitness boutique, industria del fitness, motivo de abandono, nivel de satisfacción, dimensión de calidad

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#### Introduction

## Fitness boutique business model and selected performance environment

The European fitness market continues to grow over the years (Rodón & Ortiz, 2023). This increase in competition has sparked an interest in improving the quality of service offered, regardless of the chosen niche of operation. In this context, Veiga and their research group (2023) identified five relevant trends: functional training, small group personal training, personal training, hiring certified professionals, and strength training with free weights. Additionally, boutique fitness centers have recently been studied as a new variant of premium gyms (Addolorato et al., 2022). According to Rada and Szabó (2022), Deloitte predicted in 2022 that one of the seven factors impacting the fitness sector would be intermediaries promoting visits to boutique studios to highlight the qualitative differences that these business models offer as a distinguishing point compared to existing ones. Moreover, these authors emphasize that a fully online fitness world is still far from

emerging, with the most likely scenario being the strengthening of the hybrid model, typical of boutique centers among others. In this regard, Pedragosa and Barbosa (2022) recommend that fitness centers invest in innovative technological services to increase their business benefits. They argue that financial investment is rewarded with more identified and committed members, resulting in innovative gyms continuously adapted to the market.

It is noteworthy that regular users of boutique gyms perceive "environment" and "equipment" as among the most important aspects of quality (Polyakova & Ramchandani, 2023). Similarly, studies conducted by Romero and their research team (2015) indicate that both the attention provided to users by the center's staff and specialized personnel are determining variables for users. There is no doubt that the proper management of human resources in a premium fitness center of this type influences the positive perception of consumers and can be a fundamental element in preventing high staff turnover (Zapata-Sánchez & Gálvez-Ruiz, 2019). Focusing on articles that address this boutique business model in the fitness industry, the eight main domains identified are as follows (Addolorato et al., 2022): customer orientation (attention to detail), differentiation/segmentation, location, methodology (rigorously defined systems), optimization (human resources, spaces, etc.), proactive competition avoiding "fearsome" rivalry, and finally, specialization of the proposal while also offering variety. It is important to highlight that trends such as personal training and functional physical training remain relevant in the global fitness space (A'Naja et al., 2024).

Regarding the environment where the present research is conducted, the city of Zaragoza (Spain) is an ideal setting for studies of this nature. As Vozpópuli (2014) states, this provincial capital meets the conditions to represent the Spanish average well. Furthermore, as reflected by Estrada-Marcén et al. (2019), Zaragoza is seen as a representative city of the Spanish socioeconomic reality due to its intermediate size and strategic location between crucial areas such as Madrid, Barcelona and the Basque Country. Its average income is slightly higher than the national average, which makes it a suitable reference for general/sectoral market studies. Along the contribution, for privacy reasons, the selected center will be referred to as OFS.

# Service quality and quality in fitness (perceived, satisfaction, and intention to leave)

Service quality in sports has gained relevance due to several factors (Grönroos, 2007; Keller et al., 2013; Kotler & Keller, 2016; Zeithaml, 1990). Firstly, the increase in competition makes it crucial to stand out by offering highquality services. Secondly, modern consumers have high expectations in terms of quality and experience (Pedragosa & Correia, 2009). Customer retention is fundamental because retaining satisfied customers is more cost-effective than attracting new ones. Additionally, a clear focus on quality strengthens reputation and brand. Finally, it is imperative to comply with safety and health regulations. In summary, a high-quality sports service meets the demands and expectations of users (Imbroda, 2014). Moreover, perceived quality influences satisfaction, loyalty, reputation, competitive differentiation, and continuous service improvement. Perceived quality is defined as the consumer's judgment about the excellence or superiority of a product/service (Zeithaml, 1990). The "quality gap", described by Parasuraman, Zeithaml, and Berry (1988), refers to the difference between customer expectations and their perception of the actual service quality received. In a study by Arias-Ramos (2016), differences were found between the perceived quality and satisfaction of users in private and public sports centers, with perceived quality being better in private centers for most attributes, except for equipment. Service quality in sports encompasses everything from facilities to user experience, which is crucial for satisfying customer needs and fostering loyalty. Academic literature and the sports industry have shown a growing interest in this topic, as highlighted by Rial et al.

(2008) and Tsitskari et al. (2006). These studies demonstrate a multidimensional structure in evaluating service quality, addressing aspects such as customer satisfaction, facility management, and loyalty to sports services. It is essential to underscore the significance of indicators that assess emotional value as predictors of user loyalty. Following these indicators, user satisfaction emerges as the second most crucial variable influencing loyalty in private fitness centers (García-Pascual et al., 2020).

Two key antecedents in relation to the most relevant studies are presented below:

- The SERVQUAL model by Parasuraman, Zeithaml and Berry (1988) is an influential theoretical framework for evaluating service quality, including in sports centers, and has been widely used in sports facilities (Blanco et al., 2004). This model is based on the comparison between expectations and actual service perception and defines perceived quality in five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. These dimensions offer a comprehensive framework for evaluating and improving sports service quality, helping to design strategies that meet user needs and expectations, promoting a positive experience and loyalty to the services.

- Research on customer satisfaction in sports facilities: According to Dos Santos (2016), customer satisfaction in sports facilities is a positive response resulting from the service encounter. Gym owners need to know this degree of satisfaction to maintain or improve their offerings. Studies have identified key factors such as facility quality, cleanliness, comfort, accessibility, environment, and staff treatment, which influence consumer satisfaction and loyalty (Pedragosa et al., 2015). Various evaluation scales have been developed, such as SERVPERF (Cronin & Taylor, 1992), Qsport-10 (Rial et al., 2010), CECASDEP (Gálvez-Ruiz & Morales, 2011), CALIDFIT (García-Fernández et al., 2012), and EPOD2 (Nuviala et al., 2013). Ramirez et al. (2017) compared these questionnaires, detailing their dimensions, application areas, and number of items.

The study of service quality in sports centers is necessary due to the significant instability in customer retention. García-Fernández et al. (2012) found an annual turnover rate of 37.5%, with only 21.6% of users remaining at a center for more than three years. Initial research on quality focused on the nature of services and how to measure it, but it has evolved towards more complex models that relate quality to customer satisfaction and future intentions, seeking customer loyalty (Setó, 2004). In this regard, López-Cruz (2017) emphasizes that customer service quality is crucial in the globalization era, where customers have multiple options. This statement is especially valid in the fitness sector, due to the intangibility of its services. Focusing further on the fitness sector, significant differences in age and gender exist. In their study, Nuviala et al. (2008) found that women tend to be more critical than men regarding the organization's image and the

evaluation of sports professionals in facilities offering directed activities, such as maintenance and follow-up services. Similarly, García-Fernández et al. (2014) identified that the customer profile in low-cost fitness centers with the highest perceptions of quality and loyalty consists of women over the age of 51 who have been members for more than one year and actively engage with the facility's Facebook profile and website. Furthermore, Cano-Coyle et al. (2024) noted that women exhibit a more favorable perception of the quality of facilities and services in municipal sports centers. According to Ortega et al. (2021), women place greater importance on the instructor's musical domain, and users over 30 prioritize the dedication shown by the fitness instructor. Thus, it appears evident that the fitness instructor will play a fundamental role in the perception of service quality. In the study conducted by Vila-Lorenzo and Guzmán (2024), it is concluded that in premium fitness centers, the users highly prioritize the experience and professional attitude of staff, with a particular emphasis on the interpersonal connection established with trainers. This aspect is especially valued by female clients, underscoring the critical role of trainerclient relationships in enhancing user satisfaction in such settings. Additionally, the study by Calesco and Both (2021) concluded that clients with a higher education degree, those who have been practicing physical exercises for a longer time, and those who frequent a greater number of gyms have a more critical perception of service quality.

Furthermore, the findings of Eskiler and Safak (2022) show that clients who perceive a high-quality experience attribute it to high-quality client-employee and client-client interactions. These factors could increase the likelihood of clients becoming loyal customers due to improved service outcomes. The article by Lagrosen and Lagrosen (2007) develops and presents a framework for fitness quality management. The identified quality dimensions are "pleasure", "mental change", and "physical change". Additionally, the main enablers are defined as "relational" and "technical" competence. According to Teva-Villén et al. (2014) and García and Llopis (2011), the reasons for dropout were studied through the "Survey on Sports Habits in Spain", with 64% caused by lack of free time, 35% by lack of facilities and means, 43% by lack of interest, 26% by lack of training, 24% by lack of financial resources, 13% by lack of assistance, and 7% by other reasons. Teva-Villén et al. (2014) conclude that the main reasons for dropout are economic, followed by overcrowding and available materials. The international association EuropeActive (2023) reports an increase in the fitness business in Europe from 62.9 million in 2022 to 67.6 million in 2023.

Generally, the literature indicates that customer retention is an indicator of the concept of loyalty (Clavel San Emeterio, 2017). According to Reichheld (1996), companies that achieve high levels of customer retention experience greater productivity and will obtain higher profit margins. However, studies like that of Pinillos (2004) reveal high dropout rates among young people aged 16 to

24 (52%) compared to those over 29 (29%). Retention improves with increased attendance frequency, being 78.2% for those who attend three times per week. In line with Vasconcelos et al. (2024), factors influencing user satisfaction levels are strongly linked to the frequency of use, which, in turn, is associated with higher adherence rates in outdoor gyms. This aligns with findings from the IHRSA report (2018), one of the first international sectoral "health consumers" proceedings focused on this topic, which indicates that fitness industry studies have consistently demonstrated a direct relationship between the frequency of facility use and member retention. In essence, the more frequently a member utilizes the facility, the greater the likelihood of maintaining their membership. Customer loyalty is crucial to preventing dropout (Clavel San Emeterio et al., 2016; Oliveira et al., 2021), and user behavior can be predicted without considering psychological variables, based on historical data (Clavel San Emeterio et al., 2019; Rondón-Herrán & Ortiz-Villavicencio, 2023). Yeomans et al. (2023) highlight quality, value, satisfaction, loyalty, and behavior as key factors in member retention. Regarding this application, studies have been carried out on the creation of predictive models of losses in sports centers, which concludes that each model is specific to each sports center "extraction", although it considers certain common variables among business models (Clavel San Emeterio et al., 2016; 2019; Clavel San Emeterio, 2017).

#### **EPOD2** and dropout reasons questionnaires

The EPOD2 questionnaire has been utilized in various studies within the sports services sector. Nicolás-López and Escaravajal-Rodríguez (2020) employed this questionnaire to assess the sports services at the University of Espinardo (Murcia, Spain). The findings indicate high customer satisfaction with the services, although there are noted areas for improvement such as materials and suggestion mechanisms. Similarly, Chacón-Sevilla et al. (2023) found that most variables received significantly positive ratings, with specific areas needing improvement within some dimensions. Regarding gender and age differentiation, Nuviala et al. (2021) reported that users of organized sports activities have a very positive perception of the service. Women tend to rate the quality and value more favorably, and younger users have a lower estimation of value. Overall, there are positive evaluations of the service, particularly regarding human resources. Additionally, significant differences were observed based on sex, age, and educational level (Reyes et al., 2022).

The "Scale of Reasons for Dropout" has primarily been used to evaluate the reasons for physical activity dropout among adolescents, though it has potential utility in fitness centers. According to Nuviala et al. (2012a), "the final instrument comprises five dimensions and twelve items, representing a 45.45% reduction in items without altering the scale's psychometric properties." Nuviala et al. (2012b) investigated the relationship between perceived quality and sports dropout. Their results show that 40% of adolescents have abandoned sports, with perceived quality being good overall; the "technical" factor received the highest ratings, while "sporting spaces" were rated the lowest. A correlation was found between service quality and dropout, with lower-rated sports services exhibiting higher dropout rates. Males and younger individuals have higher participation rates and lower dropout percentages (Nuviala et al., 2012c). Additionally, Martínez-Baena et al. (2012) identified that the reasons for dropout among adolescents include lack of time and insufficient facilities, despite their interest in the activity. Therefore, this theoretical framework focuses on the concept of quality and its antecedent studies, research on dropout and retention, as well as boutique centers and the analysis of studies using the EPOD2 quality questionnaires, which are key tools for the present research.

Following an analysis of the state of the art, the main and secondary objectives of this research are outlined:

- Measure the general satisfaction perception of users at the OFS boutique fitness center through the dimensions of the EPOD2 questionnaire, considering practice days, tenure, training time slot, and age (predominant demographic characteristics, user retention rates, category differentiations, communication aspects performed by the center, loyalty levels, etc.);

- Compare the results with other studies of similar characteristics, proposing new starting points to improve service quality at OFS.

#### Methodology

#### Sample and contextualization

Of the 230 users of the center, the number of questionnaires completed after the field work was 67, which means that the sample corresponds to 29.13% of the total users. The inclusion criteria were that they had to be OFS users and participation was voluntary and anonymous, without receiving any incentive in return.

The total sample of the study comprises 67 adults aged between 18 and 70 years, with 56.7% aged between 41 and 50 years, 25.4% aged between 31 and 40 years, 9% aged between 18 and 30, 4.5% aged between 51 and 60, and 4.5% aged between 61 and 70 years. Although the fitness center is equally open to both genders, it is noteworthy that the participants consist of 57 women (85.1%) and 9 men (13.4%), reflecting the actual user demographics of this type of sports center. The selected sample is not biased based on the gender of participants but rather mirrors the clientele attracted by this type of center/business model.

It is observed that 46.3% of users live in the same district as the sports center, and 70.1% arrive on foot. Most of them train twice a week (41.8%), and the most popular activity is group functional training (73.1%; nearly threequartes of the achieved sample). In addition, 43.3% of clients have been attending the center for 2 to 3 years, which is remarkable given that the average lifespan of clients is usually 15.5 to 36 months (Bedford, 2009). The most popular time to train is in the afternoon (16:00-20:00 hours), with 53.7% of users attending during this period.

The offerings of the fitness center include: 1) group training sessions (up to 6 people: pilates, hypopressives, functional training, and training for pregnant women); 2) personal training sessions (hypopressives, functional, and pregnant training); 3) pair training sessions (hypopressives, functional, and pregnant training). Operating within the fitness boutique (and premium) framework, it is essential to highlight that, despite the initially diverse and specialized services, the offerings are based on three fundamental pillars: hypopressives, functional training, and pregnant training (pilates being an additional service). The method represents the product-service, while the group size differentiates the approach and focus.

#### Validated tools

An ad hoc questionnaire was administered, encompassing sociodemographic questions related to age, gender, type of activity practiced, frequency in hours of weekly practice, duration of current membership since the last enrollment, district of residence, mode of transportation to the training center, and usual training time slot.

Additionally, the questionnaire included dimensions related to the participants' historical sports activity in other centers, such as the number of years spent training in gyms and the reasons for leaving previous fitness centers. This section was based on the "Scale of Reasons for Dropout from Sports Centers" by Nuviala and collagues (2012). The 22 items forming this questionnaire were utilized, divided into five factors (Nuviala et al., 2012): satisfaction, enjoyment, practice, economy, and leisure. Responses were recorded on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Moreover, the quality of sports services at OFS was measured using the EPOD2 questionnaire by Nuviala et al. (2013). This questionnaire comprises three areas (perceived quality, satisfaction, and perceived value), which are interrelated to understand the future behaviors of service users, as these areas affect their conduct. The questionnaire includes 25 items across eight dimensions. The complete version of the questionnaire was used to study user satisfaction comprehensively (Nuviala et al., 2013): trainer (e.g., "I am happy with the treatment received from the trainer"), facilities (e.g., "the changing rooms are sufficiently clean"), sports equipment (e.g., "there is enough equipment for training"), activities (e.g., "the activity is enjoyable"), communication (e.g., "there is a means to convey suggestions"), organization staff (e.g., "the treatment from the organization staff is pleasant"), satisfaction (e.g., "choosing this center was a good decision"), and value (e.g., "I am satisfied with the quality/price ratio of the activity"). The item "the activity offer is continuously updated" was excluded, as this gym model does not fit the low-cost typology and typically does

not include general (non-specific) directed activities among its offerings. Data were collected using Likert scale response items, ranging from 1 (strongly disagree) to 5 (strongly agree).

#### Data processing and analysis

Before commencing the research, we contacted the boutique gym OFS to explain the study and its objectives. Upon receiving their consent and assurance of data confidentiality, we proceeded to develop the questionnaire using Google Forms for distribution at the center. Once the questionnaire was finalized, we began collecting data. Initially, the questionnaire was disseminated to all OFS users via the company's corporate email, which they distributed themselves. The email, as well as the questionnaire itself, provided information about the research study to ensure participants were well-informed. Later, reminders were sent by the CEO of the center to collect any further responses. This process lasted one month.

After collecting all the questionnaires, the data were transferred to an Excel file using binary coding to facilitate subsequent analysis with SPSS (IBM SPSS Statistics, Version 27). We conducted both descriptive and inferential analyses of various variables. In the descriptive analysis, we examined the descriptive statistics of both dimensions and items, specifically measures of central tendency and dispersion (mean and standard deviation), as well as checked for data normality (skewness and kurtosis). The internal consistency of the different dimensions was assessed using Cronbach's Alpha. For the inferential analysis, we employed the non-parametric Mann-Whitney U test to compare independent samples, which is appropriate given the Likert scale used. We examined differences based on the number of training days, years of membership at the center, training time slots, and age.

#### Results

#### Sociodemographic factors and microenvironment

First, has been approached the sociodemographic data, followed by the descriptive and inferential analyses results of the various dimensions that comprise the administered questionnaire. Understanding the environment where OFS is located is essential for interpreting the results. The boutique fitness center is situated in the South District of Zaragoza (Autonomous Community of Aragon, Spain; regional capital with less than 700,000 inhabitants), 6 kilometers from downtown. While it is part of Zaragoza's outskirts, the communication with the city center is excellent due to the construction of a direct tram line a few years ago. Additionally, there is high demand for sports services from the neighborhood residents. The neighborhood is semi-new, with increasing commerce, though many commercial spaces remain vacant. The available services are gradually increasing but not significantly. Within the same district, the fitness boutique offerings are limited, although there are more options in the surrounding neighborhoods.

As defined in the methodology section (*Sample and contextualization*), the activity offerings at the center heavily cater to the female demographic, dedicating many hours to functional training, hypopressive exercises, and prenatal training. This focus is due to several reasons: a higher demand for personalized training from women; a growing interest among women in staying active and healthy; and a high maternity rate in the district (Table 1).

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Socio	domographic

Sociodemographic tra	its.				
GENDER	Ν	%	RETENTION FRAME	Ν	%
Female	57	85.1	Less than a year	25	37.3
Male	9	13.4	1-2 years	13	19.4
N/A	1	1.5	2-3 years	29	43.3
AGE (y/o)	Ν	%	ACTIVITY (training)	Ν	%
18-30	6	9	Personal	10	14.9
31-40	17	25.4	Functional	49	73.1
41-50	38	56.7	Pilates	14	20.9
51-60	3	4.5	Hypopressives	16	23.9
61-70	3	4.5	Pregnancy	1	1.5
TIME PERIOD	Ν	%	DAY/S PER WEEK	Ν	%
Morning (7-12 am)	22	32.8	1	23	34.3
Midday (12-16 pm)	16	23.9	2	28	41.8
Afternoon (16-20 pm)	36	53.7	3	12	17.9
Evening (20-22 pm)	17	25.4	4	4	6

In the sociodemographic study, it is notable that nearly half of the sample (46.3%) resides in the same district where the center is located, and 28.4% come from various nearby towns. In this regard, seven out of ten users (70.1%) walk to the sports center. Furthermore, as shown in the table, 41.8% train at the center twice a week, 34.3% train once a week, 17.9% train three times a week, and 6% train four times a week. The most popular activity is group functional training (73.1%, almost three-quarters of the sample), followed by group hypopressive training (23.9%), group pilates training (20.9%), and personal training (14.9%). Prenatal training is the least practiced (1.5%), likely because the center has not yet fully developed this area.

As affirmed above, it is also noteworthy that 43.3% of clients have been attending the facility for between 2 and 3 years (24-36 months), which is interesting given that, according to Bedford (2009), the average lifespan of clients who pay month-to-month is between 15.5 and 36 months. Additionally, 37.3% have been attending for less than one year, and 19.4% have been attending for between 1 and 2 years. The most popular training time is in the afternoon (16:00-20:00 hours), with 53.7% of users training during this period. This is followed by morning training (7:00-12:00 hours) with 32.8%, late evening training (20:00-22:00 hours) with 25.4%, and finally, midday training, with 23.9% of the sample.

#### Perceived quality, satisfaction and dropout reasons

Regarding the questionnaire on reasons for abandoning previous centers, the most common reasons, based on the

aggregate scores of responses, are: "it took too long to travel to and from the gym," "the gym was too crowded," and "I did not enjoy/find the gym stimulating."

Continuing with the descriptive analysis, and focusing on the sports service quality questionnaire (EPOD2), it is essential to highlight that the descriptive analysis and correlations between the dimensions, as presented in Table 2, reveal a mean value ranging from 4.30 to 4.81. This indicates generally positive evaluations of the service. The descriptive results for the seven scales used are displayed in Table 2, along with the univariate normality (skewness and kurtosis) and reliability (last column). The dimension of personnel received the highest average rating (M = 4.81; SD = 0.468), while communication received the lowest, although this dimension still achieved a high measure (M =4.30; SD = 0.817). All seven dimensions showed data within the univariate normality range suggested by Finney and DiStefano (2006) (skewness values between -3 and 3; kurtosis values between -7 and 7). Reliability values (Cronbach's alpha) were high:  $\alpha = 0.960$  for the trainer,  $\alpha$ = 0.844 for facilities,  $\alpha$  = 0.949 for equipment,  $\alpha$  = 0.938 for activities,  $\alpha = 0.589$  for communication,  $\alpha = 0.988$  for personnel, and  $\alpha = 0.945$  for satisfaction. The lower reliability value for the communication dimension is attributed to its composition of only two items, which still allows for a reliable assessment (Table 2).

Table 2.

EPOD2 dimensions descriptive analysis.

Dimensions	Ν	А	SD	As	K	α
Trainer/s	67	4.62	.781	-2.291	4.496	0.960
Facility/ies	67	4.41	.684	852	416	0.844
Equipment/s	67	4.61	.627	-1.618	1.529	0.949
Activity/ies	67	4.57	.774	-2.210	4.251	0.938
Communication	67	4.30	.817	-1.167	.980	0.589
Personnel	67	4.81	.468	-2.445	5.533	0.988
Satisfaction	67	4.74	.480	-2.315	5.366	0.945

Note: N=sample; A=average; SD=Standard Deviation; As=asymmetry; K=kurtosis

Table 3.

Descriptive analysis of the dimensions and correspondent correlations.

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Dimensions	Т	F	Е	А	С	Р	S
Trainer/s	1	.626**	.728**	.935**	.440**	.749**	.733**
Facility/ies	-	1	.741**	.577**	.251*	.506**	.451**
Equipment/s	-	-	1	.700**	.274*	.686**	.610**
Activity/ies	-	-	-	1	.416**	.751**	.773**
Communication	-	-	-	-	1	.471**	.475**
Personnel	-	-	-	-	-	1	.918**
Satisfaction	-	-	-	-	-	-	1

Remark: The letters correspond to the initials of the dimensions in the first column.

\*The correlation is significant at the 0.05 level (two-sided).

As shown in Table 3, all dimensions are significantly correlated, indicating that they each assess a closely related construct and that improvements in one dimension may significantly impact the others. The highest correlation is observed between the dimensions "Trainer/s" and "Activity/ies" (r = 0.935, p < 0.001), suggesting that the perceived quality of the trainer is positively associated with the activities conducted at the center. Therefore, this relationship may serve as a potential

point of intervention for enhancing overall satisfaction (Table 3).

Subsequently, differences in responses across various dimensions were analyzed by comparing users who engage in activities at the center once a week versus twice a week, those with less than one year at the center versus those with 2-3 years, morning exercisers versus afternoon exercisers, and users aged 31-40 years versus those aged 41-50 years (see Table 4).

In analyzing these tables, it is important to note that a lower U value (from the non-parametric Mann-Whitney U test) indicates a greater difference between the distributions of the two groups. However, the U value itself does not provide information about statistical significance; this is assessed using the associated p-value. Similarly, a higher W value (from the Wilcoxon test) may indicate differences between the medians of the two related datasets. Z values close to 0 suggest minimal or no difference between the groups, while more extreme (positive or negative) Z values indicate a greater difference. Finally, p-values below 0.05 suggest that the observed differences are statistically significant.

Focusing on the frequency of practice (Table 4), overall results indicate that satisfaction ratings are higher among users who engage in activities twice a week (M = 4.64, SD = 0.554) compared to those who practice once a week (M = 4.48, SD = 0.770). This suggests that more frequent use of the facility is associated with higher satisfaction scores. However, it is important to note that the observed differences are not statistically significant, as all p-values are well above 0.05, except for the value associated with the dimension of staff (p = 0.068), which is the closest to significance and gains much importance in the study.On the other hand, within the comparison of variables according to tenure at the center (Table 4), the results indicate that, overall, there are no significant differences in evaluations between the "Less than 1 year" group (M =4.54, SD = 0.650) and the "2-3 years" group (M = 4.57, SD = 0.705). The Z values are close to 0 for most of the evaluated aspects, suggesting minimal differences between the groups. However, it is interesting to note, for the dimension of "Satisfaction" (p = 0.051) that the pvalues are below 0.05, indicating potential significant differences between the groups in these aspects. This suggests that personal and overall satisfaction of users might be related to "Tenure" (Retention). Additionally, the category "Staff" also shows a difference relatively close to significance (p = 0.111). Regarding the training time slots at the center (Table 4), the results indicate that there are no significant differences in evaluations between the "7:00-12:00" group (M = 4.63, SD = 0.557) and the "16:00-20:00" group (M = 4.56, SD = 0.670). Although average ratings may vary slightly between time slots, these differences are not statistically significant according to the conducted tests. Ultimately, regarding the age differences (Table 4), it is important to note that the age brackets of 31-40 and 41-50 are considered because they represent

<sup>\*\*</sup>The correlation is significant at the 0.01 level (two-sided).

the most significant segments of the sample. No significant differences are observed, as the U values are relatively similar between the two groups. However, in the "Communication" variable (p = 0.390), the p-value is closer to 0.05, suggesting that this dimension exhibits the most variability in responses between age groups. The W values are similar across both age groups for most evaluated aspects, indicating no significant differences between the "31-40" (M = 4.58, SD = 0.641) and "41-50" (M = 4.50, SD = 0.730) groups. Nonetheless, for "Activities," the W value is lower in the "41-50" group, which could indicate a difference in this aspect, although it is not statistically significant.

#### Table 4.

Comparison of variables according to day/s of practice, active tenure (retention) timeframes, training time period, and age range

1 day of practice	N	A	SD	2 days of practice	Ν	А	SD
Trainer/s	23	4.57	.883	2 days of practice Trainer/s	28	4.68	.649
Facility/ies	23	4.35	.885	Facility/ies	28 28	+.68 4.49	.605
	23	4.57	.702		28	4.68	.603
Equipment/s	23	4.51	.880	Equipment/s	28 28	4.59	.495
Activity/ies Communication	23	4.20	.808	Activity/ies Communication	28 28	4.36	.859
Personnel	23	4.61	.656	Personnel	28	4.89	.315
Satisfaction	23 23	4.54	.656	Satisfaction	28 28	4.89	.315
	23			TOTAL	20		
TOTAL		4.48	.770			4.64	.554
Less than a year	Ν	А	SD	2-3 years	Ν	А	SD
Trainer/s	25	4.67	.731	Trainer/s	29	4.58	.897
Facility/ies	25	4.36	.713	Facility/ies	29	4.45	.680
Equipment/s	25	4.57	.635	Equipment/s	29	4.57	.642
Activity/ies	25	4.60	.728	Activity/ies	29	4.51	.873
Communication	25	4.30	.645	Communication	29	4.19	.967
Personnel	25	4.68	.557	Personnel	29	4.86	.441
Satisfaction	25	4.62	.547	Satisfaction	29	4.81	.436
TOTAL		4.54	.650	TOTAL		4.57	.705
7:00-12:00	Ν	А	SD	16:00-20:00	Ν	А	SD
Trainer/s	22	4.77	.511	Trainer/s	27	4.55	.832
Facility/ies	22	4.47	.656	Facility/ies	27	4.53	.601
Equipment/s	22	4.65	.519	Equipment/s	27	4.67	.555
Activity/ies	22	4.68	.537	Activity/ies	27	4.52	.827
Communication	22	4.25	.935	Communication	27	4.28	.776
Personnel	22	4.82	.395	Personnel	27	4.74	.526
Satisfaction	22	4.80	.349	Satisfaction	27	4.64	.571
							.670
TOTAL		4.63	.557	TOTAL		4.56	.070
TOTAL 31-40	N	4.63 A	.557 SD	TOTAL 41-50	N	4.56 A	.670 SD
	N 17				N 38		
31-40		А	SD	41-50 Trainer/s Facility/ies		А	SD
31-40 Trainer/s Facility/ies Equipment/s	17 17 17	A 4.62 4.51 4.61	SD .691 .647 .568	41-50 Trainer/s Facility/ies Equipment/s	38 38 38	A 4.55 4.32 4.51	SD .911 .753 .713
31-40 Trainer/s Facility/ies	17 17	A 4.62 4.51	SD .691 .647	41-50 Trainer/s Facility/ies	38 38	A 4.55 4.32	SD .911 .753
31-40 Trainer/s Facility/ies Equipment/s	17 17 17	A 4.62 4.51 4.61	SD .691 .647 .568	41-50 Trainer/s Facility/ies Equipment/s	38 38 38	A 4.55 4.32 4.51	SD .911 .753 .713
31-40 Trainer/s Facility/ies Equipment/s Activity/ies	17 17 17 17	A 4.62 4.51 4.61 4.52	SD .691 .647 .568 .714	41-50 Trainer/s Facility/ies Equipment/s Activity/ies	38 38 38 38	A 4.55 4.32 4.51 4.49	SD .911 .753 .713 .887
31-40 Trainer/s Facility/ies Equipment/s Activity/ies Communication	17 17 17 17 17	A 4.62 4.51 4.61 4.52 4.24	SD .691 .647 .568 .714 1.091	41-50 Trainer/s Facility/ies Equipment/s Activity/ies Communication	38 38 38 38 38 38	A 4.55 4.32 4.51 4.49 4.20	SD .911 .753 .713 .887 .740

Remark: A=Average; SD= Standard deviation.

Table 4.

Comparison of variables according to day/s of practice, active tenure (retention) timeframes, training time period, and age range

Days of practice	Т	F	E	А	С	Р	S
Mann-Whitney U	310.500	292.500	310.500	308.000	277.000	255.500	281.500
Wilcoxon W	586.500	568.500	716.500	714.000	553.000	531.500	557.500
Z	271	592	252	290	897	-1.823	836
p-value (critical level of contrast)	.787	.554	.801	.772	370	.068	.403
Tenure (retention)	Т	F	Е	А	С	Р	S
Mann-Whitney U	360.000	335.000	350.500	349.500	358.000	300.500	260.000
Wilcoxon W	795.000	660.000	785.500	784.500	683.000	625.500	585.000
Z	055	505	230	246	081	-1.593	-1.952
p-value (critical level of contrast)	.956	.614	.818	.806	.935	.111	.051
Training time	Т	F	Е	А	С	Р	S
Mann-Whitney U	261.000	281.000	276.000	267.500	289.500	283.000	261.000
Wilcoxon W	639.000	534.000	529.000	645.500	667.500	661.000	639.000
Z	908	344	483	658	159	402	816
p-value (critical level of contrast)	.364	.731	.629	.510	.874	.688	.415
Age	Т	F	Е	А	С	Р	S
Mann-Whitney U	321.500	282.000	319.500	315.000	277.500	309.000	315.500
Wilcoxon W	1.062.500	1.023.000	1.060.500	468.000	1.018.500	1.050.000	1.056.500
Z	034	793	071	158	860	367	153
p-value (critical level of contrast)	.973	.428	.944	.875	.390	.714	.878

Remark: T=trainer; F=facilities; E=equipment; A=activities; C=communication; P=personnel; S=satisfaction

#### Discussion

The presented results offer a comprehensive view of the demographics and preferences of users at the OFS sports center, as well as their satisfaction with the services provided. Starting with the sociodemographic analysis, it is noteworthy that the center predominantly attracts female clientele, which aligns with its activity offerings targeted at women, such as Pilates, hypopressives, and prenatal training. Additionally, there is a noticeable trend towards longer tenure at the center, with a significant proportion of users having attended for between 2 and 3 years (43.3%), surpassing the average retention rate in Spain, where only 21.6% of users remain at a center for more than three years (García et al., 2012). The same evaluated index (retention rate) concerning satisfaction has been examined in only one

scientific study, where it was found to have a positive and significant correlation of 63% (Gonçalves et al., 2016). This relationship will be explored in greater detail in the following paragraph.

#### Satisfaction levels

The report by Arias-Ramos (2016) indicates that perceived quality is generally higher in private centers compared to public ones, a finding that is also reflected in the evaluation of the OFS center. The satisfaction analysis results for the center provide a detailed view of how users perceive the services offered. The EPOD2 questionnaire, used to assess various dimensions of the service, reveals a high overall rating. All dimensions of the questionnaire received mean scores above 4, indicating a generally positive perception from users. This finding aligns with studies by Nicolás-López and Escaravajal-Rodríguez (2020) and Chacón-Sevilla et al. (2023), which also report high levels of satisfaction with services in their respective contexts. Users who are willing to pay a higher price for the service tend to expect superior quality, which translates into greater satisfaction.

Regarding satisfaction based on attendance, users who visit the gym twice a week tend to show higher satisfaction compared to those who attend only once a week, although these differences do not reach statistical significance. Additionally, while other studies have identified significant differences in satisfaction based on age -for instance, Aparicio-Chueca et al. (2021) suggest that younger users tend to have a more positive perception of the service- our study did not find significant differences in this regard. This lack of significant findings may be attributed, among other factors, to the limited sample size obtained.

### Perceived quality dimensions

Focusing more closely on the dimensions of perceived quality, the descriptive analysis of the EPOD2 questionnaire reveals positive evaluations across all assessed areas. The dimension of "staff" received the highest rating in the analysis, suggesting that the interaction and treatment by the staff are highly satisfactory for users. Reyes et al. (2022) confirm that, in most cases, ratings related to human resources variables are very positive. The same applies to the study by Nuviala et al. (2008), with human resources being the strong point of the organization. Vila-Lorenzo and Luján-Guzmán (2024) also emphasize that for premium clients, the professional experience and attitude of the staff are crucial, which is reflected in the high ratings obtained. This highlights the importance of staff quality in the user experience, a finding that aligns with previous research by Nicolás-López and Escaravajal-Rodríguez (2020). It is important to note that in some studies, women tend to be more critical than men when evaluating sports coaches in group activities (Nuviala et al., 2008). However, gender analysis could not be performed in our study due to the significant predominance of female participants in the sample, making comparisons and generalizations of the results across genders unfeasible. In contrast, the "communication" dimension received a slightly lower rating compared to the average of other dimensions in the study. Although this rating remains within an acceptable range, Nicolás-López and Escaravajal-Rodríguez (2020) also noted the need to study and improve aspects related to feedback channels. It is worth noting that in the study by García-Fernández et al. (2014), customers who more frequently engaged with the Facebook profile and website of low-cost fitness centers reported more positive perceptions of the facility and its services. This highlights the importance of investing in communicationrelated training within fitness centers. Studies like that of Gómez-Chávez et al. (2022) emphasize the need to update the training of physical activity graduates to align with new forms of communication, public opinion, and influence in the fitness and digital marketing sectors.

Significant differences were found in satisfaction levels between users with different lengths of membership at the center; users who have been members for 2-3 years rated the center more favorably than those who have been members for less than 1 year. This indicates that customer loyalty may be associated with overall satisfaction, essential in predicting users loyalty (García-Pascual et al., 2020). Similarly, Alguacil-Jiménez et al. (2023) conclude that prior membership is important in premium centers but not in low-cost models. Similarly, in outdoor gyms, higher usage levels are associated with increased user satisfaction (Vasconcelos et al., 2024). This is a crucial aspect, as Clavel San Emeterio's (2017) adaptation of the customer retention benefit model suggests that the longer customers remain engaged, the greater the value they provide at a consistent cost.

The correlations between different dimensions reveal that the quality of staff is positively related to overall user satisfaction. This suggests that improvements in one service dimension, such as staff quality, can positively impact other service areas, underscoring the importance of a comprehensive approach to quality management. It can be concluded that enhancing the quality of staff has a significant influence on the perception of other service dimensions. Therefore, implementing regular feedback mechanisms to evaluate staff performance, as well as offering periodic training programs to enhance trainers' interpersonal and technical skills, should be considered. These measures will help ensure that the service quality remains consistently high.

### Dropout reasons

Regarding the reasons for dropout, the "Reasons for Dropout" questionnaire provides valuable insights into why users cease attending the gym. The most frequently mentioned reasons include the time required for commuting to and from the gym and congestion within the facilities. These findings are consistent with results from previous studies (García-Ferrando & Llopis, 2011; Teva-Villén et al., 2014). These factors represent the primary reasons why OFS users have discontinued their memberships at other sports centers. Therefore, it is essential to ensure that communication channels, public transportation access, and parking facilities near the center are efficient and convenient. Additionally, it is crucial to design more personalized activities that avoid overcrowding in training spaces. Addressing these issues is likely to significantly enhance the user retention rate.

#### Conclusion

In conclusion, this study has provided a detailed overview of the demographics, preferences, and satisfaction of users at the OFS sports center. The results indicate that the center primarily attracts women, which aligns with its focus on female-oriented activities such as functional workouts, hypopressives, and prenatal training. Furthermore, there is a notable trend toward longer retention, with a significant proportion of users attending the center for two to three years, surpassing the average retention rate in Spain. This suggests that the center is effective in retaining its users. Regarding service evaluation, the EPOD2 questionnaire results reveal a generally high assessment, with all dimensions receiving average scores above 4. This reflects a widespread positive perception among users and is consistent with previous research indicating high satisfaction levels in private sports centers. Particularly noteworthy is that the "Personnel" dimension received the highest average rating, suggesting that interactions with the center's staff are highly satisfactory for users. Previous studies also emphasize the importance of staff quality in overall service perception, indicating that improvements in staff quality can significantly positively impact other service dimensions.

Although other studies have found significant differences in satisfaction based on age, this study did not observe such differences, suggesting that other factors may influence users' overall satisfaction more significantly. However, the "Communication" dimension received a slightly lower, though still acceptable, rating, indicating room for improvement in areas related to suggestion mechanisms and communication with users. Correlations between different service dimensions show that the perceived quality of the trainer is positively related to user underscoring the importance satisfaction, of a comprehensive approach to service quality management. Enhancements in one dimension may positively affect other areas. Regarding attendance frequency, satisfaction tends to be slightly higher among users who attend the center twice a week compared to those who attend only once, although these differences are not statistically significant, suggesting that other factors may also influence user satisfaction.

Finally, significant differences were found in satisfaction between users with different lengths of membership, indicating that customer retention is associated with overall satisfaction. This finding highlights the importance of effective customer retention strategies to maintain high levels of satisfaction. It is valuable to highlight several practical implications that could enhance the perceived quality of services at this center. Key strategies include offering incentives to long-term users, such as discounts, additional benefits, or premium memberships to encourage retention; promoting ongoing staff training; implementing regular user feedback systems to assess staff performance; fostering two-way communication through mobile applications that encourage user interaction; and providing personalized follow-up for new members during their initial months of membership.

In summary, the study emphasizes the importance of maintaining a comprehensive approach to service quality management, with particular attention to staff quality and user communication. Additionally, it is essential to acknowledge a range of limitations and future research directions to achieve more robust conclusions regarding user satisfaction in sports centers.

#### Limitations and further investigation lines

Despite the results obtained, this study has several limitations that must be considered when interpreting the findings. Firstly, the small sample size limits the generalizability of the results, 29.13% (almost three out of ten) of the users who make up the fitness center participated. While efforts were made to mitigate this restriction through correlation analyses between dimensions and population groups, it remains a significant limitation affecting data representativeness. Additionally, the sample is predominantly female, reflecting the nature of the OFS sports center, which is primarily focused on female-oriented activities. This gender imbalance may influence the results and limit the applicability of the findings to a more gender-balanced population.

The study was conducted over a relatively short period, which constrained the coverage of all initially intended areas. This temporal limitation affects the depth of analysis and the breadth of data collected. Nonetheless, the results provide a solid foundation for future studies with a broader scope. Furthermore, comparing these findings with other similar studies was challenging due to the scarcity of research on private sports centers. This lack of research limits the contextualization and external validation of our findings, highlighting the need for more studies in this sector to allow for more robust comparisons. These factors suggest the need for future research with larger and more diverse samples, as well as extended data collection periods. Such studies would yield more generalizable and comparable results, enhancing the understanding of satisfaction and service quality in private sports centers. Longitudinal studies would be valuable for observing changes in user satisfaction and retention over time, providing deeper insights into loyalty dynamics and factors influencing long-term user retention. Additionally, investigating the reasons behind higher satisfaction among users with longer tenure compared to those with shorter tenure could identify specific strategies contributing to this

loyalty and how they can be replicated for new users. It would also be beneficial to conduct a detailed evaluation of the communication aspects that received slightly lower ratings. Proposing enhancements to suggestion mechanisms and overall communication with users could significantly improve satisfaction levels. This could include providing training on new digital applications specifically designed for the fitness sector, which would facilitate more effective interaction and feedback between users and the facility. Moreover, future research could explore how age affects the perception of service quality, as other studies have found significant differences that were not observed in this study. Including more detailed age segmentations might provide further insights. Furthermore, segmenting the profiles of users who demonstrate longer-term engagement with the boutique center could be highly beneficial for designing targeted marketing campaigns aimed at attracting prospective users with similar characteristics. This strategy may contribute to increasing retention rates by focusing on individuals more likely to exhibit long-term loyalty.

Although not statistically significant, the "Personnel" dimension received high ratings, suggesting the evaluation of continuous training programs for staff and their impact on user satisfaction.

Lastly, comparative studies of OFS's satisfaction and retention strategies with other sports centers, including both private (beyond the boutique model) and public centers, could identify successful practices that could be adopted and adapted to improve the service at the fitness center in relation to consumer engagement.

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