Article

Effects of Service Quality and Service Convenience on Customer Satisfaction and Loyalty in Self-Service Fitness Centers: Differences between Staffed and Unstaffed Services

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Abstract: As an emerging model, self-service fitness centers are reshaping the consumer fitness experience globally. Recognizing the pivotal role of customer loyalty in the sustainable operation and management of fitness service enterprises, this study aims to uncover the factors and mechanisms affecting loyalty in these centers. Specifically, it addresses how service quality, convenience, and customer satisfaction influence Word-of-Mouth intentions and repatronage intentions while examining the differences in these relationships under service methods with staff and without staff. Employing PLS-SEM, an empirical analysis of 552 customer questionnaires from four self-service fitness centers in China's top-tier cities was conducted. The results underscore positive correlations among the constructs in the structural model, emphasizing the significance of enhancing service quality and reducing customer efforts in loyalty management. Notably, service convenience emerged as a crucial driver of service quality. This convenience, mediated by service quality and satisfaction, significantly promotes Word-of-Mouth intentions and repatronage intentions. Additionally, marked differences were observed in these relationships based on the presence or absence of staff. This study investigates customer loyalty in self-service fitness centers for the first time, analyzing the differences in these relationships based on service methods with or without staff offering targeted strategies for fitness centers leveraging self-service technologies.

Keywords: service quality; service convenience; satisfaction; loyalty; behavioral intentions; self-service fitness center

1. Introduction

Leisure activities, such as fitness, are widely acknowledged to have positive impacts on individuals' physical and mental health, as well as their mood [1]. Fitness centers have emerged as pivotal players in this scenario, evolving into a conventional service to fulfill public fitness requirements [2]. Given the challenges of new customer acquisition and high attrition rates among existing customers in fitness center operations, customer loyalty becomes especially crucial in an intensely competitive industry environment [3]. With the rise in consumers' disposable income and further improvement in their quality of life, the propensity to participate in fitness activities and expectations for service quality at fitness centers have simultaneously increased. Hence, businesses are compelled to formulate customer-centric strategies, fulfilling customer expectations to carve a competitive advantage. Research indicates that service quality is among the primary factors influencing customer satisfaction, customer retention, and the long-term profitability of an organization [4–6]. Therefore, to foster customer loyalty and ensure sustainable operations, fitness centers must excel in service quality management [7].

Simultaneously, due to the profound impact of emerging technologies on people's lifestyles, consumers' demand for convenience has become more pronounced, especially concerning time-saving and effort reduction [8]. To meet consumers' requirements for

convenience, the service industry has begun to invest more resources in improving service delivery, such as incorporating e-commerce, mobile payment, round-the-clock operation hours, data-driven recommendations, and various applications, shifting their service strategy towards customer-centricity and convenience [9]. Research indicates that highly convenient services significantly contribute to enhancing consumers' behavioral intentions and loyalty [10].

In recent practice within the fitness service industry, the outbreak of COVID-19 has further accelerated this change. During the pandemic, the normal operation of fitness centers was heavily impacted due to strict restrictions on face-to-face service interactions, leading fitness centers to actively seek technology innovations to change service methods. Among these, technologies that enable service delivery without face-to-face interaction between customers and staff, such as self-service technologies, have been widely welcomed. In response to this change, previous studies have discussed the impact of some technologies on service management and marketing in fitness centers, such as virtual fitness classes, apps, and wearable devices [11–13]. The research results highlight the significant influence of convenience and service quality under these technology adoptions on customer satisfaction, future behavioral intentions, and willingness to continue participating in fitness activities. However, no research to date has explored the impact of self-service technology (SST) on service management in fitness services.

After the pandemic, more fitness centers began to fully adopt SST for service provision. In China, self-service fitness centers have become an important channel for promoting sports industry growth and have received strong support from government policies [14]. Empirical studies in other service industries have shown that the adoption of self-service technology not only changes the way customers and staff interact but also effectively enhances customer satisfaction and loyalty [15,16]. Self-service convenience stores, self-service gas stations, and self-service hotels have become typical applications of self-service technology. With the rapid development of the self-service fitness service model globally [3], consumers' acceptance of using technology for fitness activities is gradually increasing. Therefore, it is becoming increasingly important to research customer loyalty towards self-service fitness centers and explore how to improve their operational management level. Given the profound change of SST on the way of service interaction, understanding consumers' attitudes towards different service interaction methods in the self-service fitness environment also shows research and practical significance.

Therefore, this study aims to analyze the factors and mechanisms affecting customer loyalty in the current self-service fitness centers through the relationships among service quality, service convenience, customer satisfaction, Word-of-Mouth (WOM) intentions, and repatronage intentions. In addition, testing the impact of different service methods, with or without the presence of staff, on the above relationships is another important theme of this study. In this process, we also make the following contributions. Firstly, loyalty measurement is carried out through two independent behavioral intention structures, repatronage intentions and WOM intentions, rather than a single aggregate structure, thereby improving measurement accuracy and providing a more specific understanding of customer loyalty [17]. Furthermore, this study further explores the influence relationship between service convenience and service quality, narrowing the gap in related research in the fitness service field. The research results contribute to understanding customer loyalty in self-service fitness centers while also providing actionable suggestions for managers to allocate human resources rationally and enhance sustainable operation capability.

The remainder of the article is structured as follows: Section 2 defines key constructs, examines their interrelationships, and presents research hypotheses and the conceptual model. Section 3 outlines the research methodology. Section 4 details the findings. Section 5 delves into their implications. Finally, Section 6 concludes with limitations and future research suggestions.

2. Theoretical Foundation and Hypothesis Development

2.1. Self-Service Technology and Self-Service Fitness Centers

Self-service technology (SST) refers to those technological interfaces that enable users to obtain services directly in most cases without the need for staff participation [18]. This concept was first proposed by Dabholkar to explain the self-service process involving technological interfaces [19]. Compared to traditional face-to-face service interactions, SST transfers some of the service processing responsibilities to customers, reducing reliance on staff. Today, SST is widely used in various industries. For example, in the hotel and tourism industry, customers can independently complete check-in, check-out, ticketing, and ordering services through SST [20].

SST offers numerous benefits to service providers, including cost reduction, enhanced service quality, efficiency, and productivity [21–23], and bolstered corporate image that attracts new customer segments [24]. Concurrently, it provides greater convenience for consumers in terms of location, accessibility, time, and cost savings [25,26]. By standardizing services and reducing the impact of human factors on the service experience, SST is perceived to better fulfill customer needs, thereby improving customer satisfaction and loyalty [27]. However, customers' attitudes towards this unstaffed service are not always positive. Existing studies have investigated customer acceptance of self-service from perspectives of technology readiness [28], technological characteristics [29], and consumer traits [30]. Other researchers have explored the impact of self-service on customer satisfaction and loyalty in different service sectors, such as postal services and online retail [31,32], and how various factors, such as the presence of staff and locational convenience, affect customers' attitudes towards SST usage [33]. These prior studies demonstrate that customers' attitudes towards self-service are not static but are influenced by the specific service environment and service delivery circumstances. Currently, research results related to self-service in the fitness service environment and customers' views on different service interaction methods are not clear.

Against the backdrop of digital transformation, numerous global large-scale chain fitness centers have begun to actively adopt the self-service model, such as Anytime Fitness in the United States, JOYFIT and Fastgym24 in Japan, The Gym Group and PureGym in the United Kingdom, and Supermarket and Lefit in China. In China, fitness centers that only provide fitness space, based on the Internet of Things and Internet technologies, can implement remote automated control of lighting, access control, and air conditioning ventilation systems, enabling the fitness centers to operate 24 h a day on a self-service basis. These fitness centers are known as self-service fitness centers, unstaffed fitness centers, or 24 h fitness centers [34]. This model leverages high-quality group classes as a competitive strategy, with class retailing and membership fees as the core profit model. Through applications and online platforms, self-service fitness centers offer efficient course scheduling and virtual guidance, while big data analysis provides customers with personalized fitness suggestions. In the physical fitness environment, self-service kiosks, smart access controls, vending kiosks, and other self-service facilities simplify the process of customer registration, booking, and payment, enabling unstaffed operations. However, this does not imply that customers lack support during fitness activities. On the contrary, dedicated staff monitor the fitness center remotely to ensure customer safety and smooth service delivery. Customers can also contact customer service via telephone or onsite communication devices. Staff can arrive on-site within a short period to handle relevant matters. This mode of service ensures customer support while providing flexible self-service.

2.2. The Relationship between Service Quality, Customer Satisfaction, and Behavior Intentions

The perceived service quality largely determines consumer satisfaction [35]. In this context, understanding consumers' perceptions of service quality is crucial for sports and fitness centers aiming to enhance management efficiency and maintain competitiveness, becoming a focal point in contemporary service quality management [36,37]. Research on service quality stems from the development of the service concept. Due to the intrin-

sic characteristics of services, such as the intangibility of production and consumption, inseparability or simultaneity, heterogeneity or variability, and perishability, the quality practices adopted for services must differ from those for tangible products [38]. Thus, the accurate measurement of service quality is challenging. Against this backdrop, early studies presented varying perspectives or methods for defining and measuring service quality. Initially, researchers defined it as the gap between customer expectations and their perceptions of actual service performance [38,39]. Building on this, Parasuraman et al. expanded the concept of service to five dimensions of service quality, including tangibles, reliability, responsiveness, assurance, and empathy, and designed the SERVQUAL tool, which measures service quality across these five dimensions [38]. However, the tool's validity and applicability encountered criticism from some researchers. For instance, Cronin and Taylor's study suggested that the SERVPERF scale, which concentrates on perception, demonstrated superior validity in assessing service quality compared to SERVQUAL [40]. Therefore, Cronin et al. proposed conceptualizing service quality as a consumer's perception structure based on performance [41], while the specific dimensions should vary depending on the service context [42]. For instance, within the fitness service field, researchers have developed new assessment tools due to SERVQUAL's inability to provide dimensions specific to the context of fitness centers, such as the QUESC scale developed by Kim et al. for Korean sports center service quality [43], the SSQRS leisure sports service quality scale proposed by Ko et al. [44], and the SQAS service quality assessment scale established by Lam et al. based on American fitness centers [45]. In recent years, the most common concept of service quality has been placing quality within the context of the service domain from the customer's perspective. According to Zeithaml and others [37], "Only consumers can judge quality; all other judgments are essentially irrelevant."

Previous research has emphasized the crucial role of customer satisfaction. Studies have shown that customer satisfaction assists businesses in establishing long-term, beneficial relationships with their customers. This is specifically reflected in behaviors and intentions that demonstrate loyalty, such as repeat purchases, revisits, and customer retention [46–48]. If businesses fail to meet customer needs as efficiently as their competitors, they risk losing market share, customers, and investors [49]. Early studies believed that there was a significant similarity between customers' perceived service quality and satisfaction. However, now, these two concepts have been identified as two distinct structures. For instance, Zeithaml and others argue that satisfaction pertains to the customer's evaluation of a specific transaction. This requires prior experience as a foundation because this evaluation is based on consumers' previous expectations, while service quality can be perceived without the need for direct experience [6]. Currently, based on prior research from both cognitive and emotional perspectives [50,51], customer satisfaction is defined as consumers' evaluation and emotional response to a product or service [52]. In terms of measurement scales, customer satisfaction is typically divided into transaction-specific satisfaction and cumulative satisfaction. The former involves the evaluation of a specific product or service, while the latter entails an overall assessment of a product or service [53]. Of the two, cumulative satisfaction has proven to be more stable and effective in predicting customer loyalty [54,55] and has been widely adopted in studies within the fitness service domain [3,56,57]. Therefore, in this study, customer satisfaction is defined as the overall assessment by customers of the fitness center and its service experience.

The relationship between service quality and customer satisfaction has been empirically supported in early studies, with service quality widely regarded as a significant predictor of customer satisfaction [58]. For instance, the study by Rust and Oliver suggested that customer satisfaction is directly dependent on service quality [59]. In the relationship between service quality and customer loyalty, Taylor et al. observed that service quality should directly influence customer satisfaction, which in turn elevates customer loyalty [60]. In the fitness service domain, Foroughi et al. underscored the positive correlation between service quality and customer satisfaction in the context of Malaysian fitness centers [61]. A recent review study further confirms that customers' positive percep-

tions of the service quality in fitness centers lead to increased customer satisfaction [62]. Therefore, self-service fitness centers that provide superior service quality are more likely to boost customer satisfaction. Based on the above theories and research, we propose the following hypothesis:

H1. *There is a positive correlation between service quality and customer satisfaction.*

Loyalty is often defined in the literature as "a steadfast commitment to re-purchase a favorite product or service in the future, despite situational influences and marketing efforts that might cause switching behavior" [52]. There are mainly two perspectives on measuring loyalty: the behavioral perspective and the attitudinal perspective. The behavioral perspective emphasizes customers' actual behaviors, such as the frequency and persistence of purchasing behavior [63]. The attitudinal perspective, on the other hand, focuses on customers' behavioral intentions, such as the willingness to repatronage services or recommend them to others [5]. Oliver suggested that actual behavior is often guided by behavioral intentions [55], a viewpoint also supported by attitude-behavior theories and goal theories [64]. Therefore, by comparison, the attitudinal perspective is often considered more helpful for a more comprehensive understanding of loyalty formation. In this study, we follow this perspective. In the prior studies on attitude structure, Zeithaml et al. pointed out that repatronage intentions and WOM intentions are key indicators to assess customer loyalty [5]. These two indicators are related to customer retention and are widely used in the sports and fitness service domain [65,66]. However, due to the lack of significant association between repatronage intentions and WOM intentions, researchers suggest treating them as two separate structures for deeper analysis [17,67]. This study follows this suggestion.

Service quality has been proven to have a positive impact on customer loyalty, especially in relation to repatronage intentions and WOM intentions. Bitner et al. found that service quality has a direct impact on customers' WOM and repurchase intentions [68]. Empirical research conducted by De Ruyter et al. under five different service environments reached similar conclusions [69]. This relationship has been verified in recent empirical studies, such as enhancing customer recommendations and revisiting intentions by improving service quality in self-service [27] and the direct connection between e-service quality and customers' green purchase intentions [70]. In the field of fitness services, a study by Zopiatis et al. on the environment of hotel fitness centers found that the dimension of fitness facilities in service quality has a direct impact on customers' future intentions [71]. Therefore, a high level of perceived service quality by customers could potentially contribute to more positive behavioral intentions. Based on the aforementioned research, we propose the following hypotheses:

H2a. *There is a positive correlation between service quality and customers' WOM intentions.*

H2b. *There is a positive correlation between service quality and customers' repatronage intentions.*

2.3. The Relationship between Service Convenience, Service Quality, Customer Satisfaction, and Behavioral Intentions

Research has pointed out that time scarcity is a significant issue faced by consumers worldwide [72]. The aspiration to minimize the expenditure of time and effort has increasingly become a key demand of consumers towards service providers. Consequently, service convenience has been widely incorporated into service and management research in recent years. Service convenience refers to consumers' perception of the time and effort required to purchase or use a service [73]. This definition, proposed by Berry et al., has been widely accepted. Service convenience is divided into five dimensions: decision convenience, access convenience, transaction convenience, benefit convenience, and post-benefit convenience, which encompass the entire process of customers selecting services, accessing services, transacting services, benefiting from services, and maintaining relationships with

service providers. Studies have indicated that the evaluation of service convenience must be combined with the specific service environment and consumer experience [74]. For instance, in the context of e-retail services, the convenience of decision-making, transactions, benefits, and post-benefit would have a more significant impact on consumer behavior intentions [75]. In mobile banking services, users' service evaluations would be significantly influenced by access, transactions, benefits, and post-benefit convenience [76]. Therefore, the five-dimensional structure of service convenience may not be applicable to all services. A similar situation may occur in a self-service fitness center. Factors such as operating hours, service methods, and automated payment methods may affect customers' perceptions of convenience. Hence, further analysis of the service convenience in self-service fitness centers is needed.

Previous research has emphasized the direct relationship between service convenience and service quality [73]. In some service industries, such as mobile phone services and retail banking services, the dimensions of convenience have had a positive impact on the perception of service quality [77]. Similarly, Reynaldo et al. found in their study on long-distance logistics services that the perceived service convenience enhanced the perceived service quality [78]. These studies suggest that convenient services might improve perceived service quality by reducing customers' investment in time and effort [79]. However, the influence of service convenience on service quality in the fitness service field has rarely been touched upon in current research. As self-service fitness centers gain a competitive edge by offering highly convenient services, we infer that customers might consider service convenience an essential factor when assessing service quality. Based on the above discussion, we propose the following hypothesis:

H3. *There is a positive correlation between service convenience and service quality.*

Existing research has observed a direct relationship between service convenience and customer satisfaction, encompassing both physical services and online services [80,81]. For instance, Bi et al., in their study on online tourism shopping services for the elderly, and Benoit et al., in their study on in-store services, both found that the dimensions of service convenience had a significant impact on customer satisfaction [82,83]. In the field of fitness services, research by García-Fernández et al. showed that besides decision convenience, the dimensions of access, transaction, benefit, and post-benefit convenience had a direct and significant impact on customer satisfaction in low-cost fitness centers, subsequently influencing customer loyalty [3]. Given the potential of convenient service delivery in an SST environment to improve customer satisfaction, we propose the following hypothesis:

H4. *There is a positive correlation between service convenience and customer satisfaction.*

Service providers are advised to always prioritize offering convenient services, as it directly influences customer loyalty [73]. Some prior research has examined the impact of service convenience on the behavioral intentions aspect of customer loyalty. For instance, studies by Ozturk et al. in hotel booking services and Eryiğit et al. in the field of e-services have both demonstrated that service convenience directly influences consumers' repurchase and referral intentions [84,85]. Similarly, in the fitness service field, a study by Baena-Arroyo et al. on fitness centers in Spain showed a positive and significant direct relationship between service convenience and customers' future intentions [12]. These studies suggest that customers who perceive higher service convenience are more likely to generate behavior intentions favorable to service providers [75]. Thus, we propose the following hypotheses:

H5a. *There is a positive correlation between service convenience and customers' WOM intentions.*

H5b. *There is a positive correlation between service convenience and customers' repatronage intentions.*

2.4. Relationship between Customer Satisfaction and Behavioral Intentions

Positive customer experiences with a service often increase their intentions to maintain a relationship with an organization. Therefore, customer satisfaction is usually seen as a direct influencing factor of customer loyalty [86,87]. In measuring the behavioral intentions aspect of loyalty, researchers have confirmed the direct impact of customer satisfaction on repatronage intentions or WOM intentions. For instance, a study by Slack et al. found that supermarket customers' satisfaction significantly affects their WOM and repurchase intentions [88]. Lin et al.'s research revealed that for less experienced low-cost airline passengers, their satisfaction significantly directly affects their referral intentions [89]. In the fitness service field, a study on the loyalty of users of fitness channels on social media platforms points out that when users feel satisfied, they are more willing to recommend the fitness channel to others and continue to use the channel [90]. Therefore, we believe that satisfied customers are more likely to enhance their loyalty to the organization and show positive behavioral intentions. Based on the above research, we propose the following hypotheses:

H6a. *There is a positive correlation between customer satisfaction and customers' WOM intentions.*

H6b. *There is a positive correlation between customer satisfaction and customers' repatronage intentions.*

2.5. The Mediating Role of Service Quality and Customer Satisfaction between Service Convenience and Behavioral Intentions

Based on the discussed impact relationships among service convenience, service quality, customer satisfaction, and behavioral intentions, i.e., service convenience can positively impact service quality and customer satisfaction [78,81], and the latter can enhance customers' WOM intentions or repatronage intentions [70,86]. We further speculate that there may exist a chain-like mediating impact relationship, i.e., a high level of service convenience might act as a driving factor, enhancing customers' evaluations of service quality, subsequently improving customer satisfaction, and ultimately influencing customers' WOM intentions and repatronage intentions. This impact relationship reveals the possible path for service convenience to influence customers' behavioral intentions through service quality and emphasizes the key role of service quality and customer satisfaction in this process. Therefore, based on the above discussion, we propose the following hypotheses:

H7a. *Service quality plays a mediating role between service convenience and WOM intentions.*

H7b. *Customer satisfaction plays a mediating role between service convenience and WOM intentions.*

H7c. *Service quality and customer satisfaction play a chain-mediated role between service convenience and WOM intentions.*

H8a. *Service quality plays a mediating role between service convenience and repatronage intentions.*

H8b. *Customer satisfaction plays a mediating role between service convenience and repatronage intentions.*

H8c. *Service quality and customer satisfaction play a chain-mediated role between service convenience and repatronage intentions.*

2.6. The Moderating Role of with Staff versus without Staff Presence

Generally, the fitness service industry involves direct interactions between staff and customers. As soon as customers walk through the door, interaction occurs. Therefore, face-to-face service interaction has always been a key factor for fitness centers to establish strong customer relationships [91]. Based on this service inertia, some self-service fitness centers still arrange a few employees on-site to assist customers in using SST. Compared to without staff service methods, with staff means that customers can directly see and interact

with staff while using self-service [33]. This is similar to on-site assistance services in other industries, such as banks and supermarkets.

Previous studies have explored the impact of different service methods on customer evaluations. Empirical research in the hotel and airline service industries indicates that employee image, courtesy, and proactive response are closely associated with customer perceptions of service quality and satisfaction [92,93]. Service research in the restaurant industry has shown that direct interaction between staff and customers positively influences repatronage intentions [94]. However, over-interaction could lead to service redundancy and customer complaints, thereby reducing customer satisfaction and loyalty [95]. On the other hand, SST is enhancing service convenience by reducing and replacing staff–customer interactions [96]. This unstaffed method of service has been found beneficial for improving customers' evaluations of service quality, satisfaction, and loyalty [97]. However, customers' views on service interaction methods may vary depending on the type of service. For example, research in the retail service field found that under without staff conditions, customer satisfaction is usually lower than under with staff conditions [98]. In self-service retail stores, customers usually wish to see staff during the transaction process [96]. In the field of fitness services, staff's professional skills, social skills, and communication abilities have been observed to have a significant impact on customer satisfaction and behavior intentions [61,99]. Therefore, it is believed that the service methods, either with staff or without staff, could moderate the relationships among the constructs of service quality, service convenience, customer satisfaction, and loyalty, and we propose the following hypothesis:

H9. *The service methods of with staff and without staff have significant differences in the impact on the relationships among service quality, service convenience, customer satisfaction, WOM intentions, and repatronage intentions.*

2.7. Conceptual Model

Based on the above analysis, this study constructs a conceptual model to examine the relationships among service quality, service convenience, customer satisfaction, WOM intentions, and repatronage intentions in self-service fitness centers, as shown in Figure 1. The model posits service convenience as the independent variable, with service quality and satisfaction as mediators and WOM intentions and repatronage intentions as dependent variables. It presumes that both service quality and convenience significantly affect customer satisfaction, WOM intentions, and repatronage intentions. Service convenience positively impacts service quality, and both service quality and customer satisfaction serve as chain mediators in the relationships between service convenience and WOM intentions and repatronage intentions. This model structure expands on the research by Brady et al. and Berry et al. [73,100]. Similar models have been applied and validated in various domains, such as sports services [4,71,101].
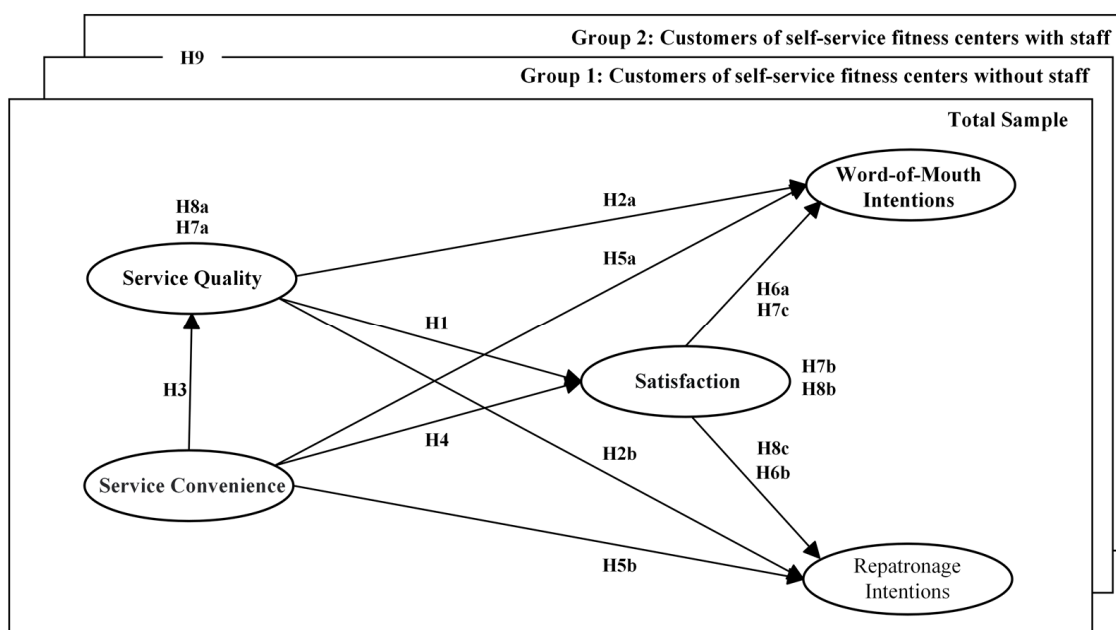
Figure 1. Conceptual Framework of the study.

3. Methods

3.1. Measures

The measurement model of this study includes five main constructs: service quality, service convenience, customer satisfaction, WOM intentions, and repatronage intentions. All the scales used have been validated in previous studies to ensure their validity and reliability. Additionally, we used nominal scales to collect demographic information such as gender, age, and education level. To quantify various responses, we employed a Likert seven-point scale (1 indicates "strongly disagree," and 7 indicates "strongly agree"). We established an expert panel consisting of two managers from self-service fitness centers, two fitness coaches, and two service design graduate students. They reviewed and revised all vague or inconsistent item descriptions with the research objectives to enhance their precision. We also conducted pre-tests to ensure the validity and reliability of all measurement tools and employed back-translation for language equivalence tests.

The measurement items for service quality were adapted from the SQAS scale developed by Lam et al. [45], encompassing six dimensions: staff, programs, locker room, physical facilities, workout facilities, and child care. This scale was constructed based on the research of Rust, Oliver, and Parasuraman [39,59]. The SQAS has now been widely used and validated in the fitness service field. For example, Eskiler et al. removed the "child care" dimension and added an "other" dimension in their study conducted in the context of an Istanbul fitness center [102]. AbouRokbah et al. used the original five dimensions and added two new dimensions, parking and social environment, in their research in women's fitness centers [103]. All these studies have demonstrated the effectiveness and reliability of the SQAS scale. At the suggestion of the expert panel, we referred to previous studies and, according to the characteristics and service content of the self-service fitness centers, added a new "self-service" dimension and eliminated the "child care" dimension as well as the "shower cleanliness" item in the "locker room" dimension. The items for the newly added "self-service" dimension are derived from the STTQUAL scale [104], based on the work of Lin and Hsieh and have been widely used in related studies of SST [30,105].

The measurement items for service convenience originated from the leisure environment service convenience scale by Chang and Polonsky, which was adapted based on Berry et al.'s suggestions for various convenience measurements [73,106]. In the fitness service environment, García-Fernández et al.'s research validated the effectiveness and reliability

of the four dimensions: access, transaction, benefit, and post-benefit, each containing two items [3]. This scale has been validated in other fitness service research [12].

The cumulative satisfaction scale consisting of four items was used to measure customer satisfaction. Respondents were asked to evaluate their satisfaction with the self-service fitness centers based on their overall experience. This measurement tool comes from the research of Oliver and Cronin et al. [52,107]. The same items have been used in existing fitness service research to measure customer satisfaction [102,108].

Customer loyalty was evaluated by measuring two behavioral intentions of customers. It has been proven that separating measurements for repatronage intentions and WOM intentions is superior to measuring loyalty through aggregate methods [17]. The measurement tool for repatronage intentions was adapted from the four-item repurchase intentions scale proposed by Oliver and Swan [109]. WOM intentions were measured using a three-item scale adapted from Zeithaml et al. [6]. In previous studies, these two scales have been considered reliable and effective [110,111].

3.2. Pre-Testing

The pre-test was conducted in two self-service fitness centers that provide different staff service methods. A total of 150 questionnaires were distributed, and 104 valid questionnaires were collected. The pre-test data were not included in the final data analysis. The collected data were subjected to Exploratory Factor Analysis (EFA) using the SPSS 27.0 program. The results showed that the Kaiser–Meyer–Olkin (KMO) measures of all variables were above 0.7, and the p-values in Bartlett's test of sphericity were less than the significant level of 0.05, indicating that the data were suitable for factor analysis. The KMO values of the "service quality", "service convenience", "customer satisfaction", "Word-of-Mouth intentions", and "repatronage intentions" scales were 0.827, 0.760, 0.840, 0.732, and 0.812, respectively. However, the maximum factor loadings of some items in the dimensions of staff (Sta2, Sta4, Sta5, and Sta8), programs (Pro5 and Pro6), locker room (LR3), physical facilities (PF3 and PF4), and self-service (Ss2) did not reach the conservative threshold of 0.60 after rotation [112], and these measurement items had a corrected item-total correlation (CITC) level of less than 0.4 in Cronbach's α reliability test [113]. Therefore, we removed these measurement items to improve reliability and revised the questionnaire for formal testing.

3.3. Sample Size Estimation

The MedPower web version of the program was used to estimate the minimum sample size required [114]. MedPower was chosen because we need to detect mediating relationships in the measurement model, and this tool can handle standardized coefficients. This method has been applied in the field of sports and health [115]. In this study, we assumed that the standardized path coefficients of the mediating effect were both 0.2 before and after, we set the desired power at 0.8 and fixed the alpha error probability at 0.05. Through these settings, the calculated sample size is 250 people. We referred to the method of prior research to double the sample size to improve the accuracy of multi-group analysis and to cope with possible invalid responses [116]. Therefore, this study needs to recruit more than 250 fitness customers in each of the two types of self-service fitness centers that provide different staff service methods.

3.4. Data Collection and Respondents

To ensure a representative sample, we collected official test data from March to May 2023 from four self-service fitness centers in two first-tier cities in southern and northern China. These fitness centers all belong to the two largest chain fitness brands in China. The number of monthly active customers in each fitness center ranges from 400 to 600, and similar pricing strategies are adopted. Based on the research objectives, the chosen fitness centers can be divided into two categories according to the method of staff service:

two of them offer without staff services, and the other two have a small number of on-site service staff.

Before starting the data collection, we first contacted the person in charge of each fitness center and explained the purpose and process of the research. After getting their approval, we collected data through electronic questionnaires and posted questionnaire survey notices with QR codes inside each fitness center. To protect the participants' right to information, we clarified the purpose of the research and data collection, voluntary participation, and anonymity in the notice. To incentivize respondents and increase the validity of the questionnaire, customers who completed the questionnaire had a chance to win a functional beverage.

A total of 552 valid questionnaires were received from both types of self-service fitness centers. Of the respondents, 315 were male (57.1%) and 237 were female (42.9%). In terms of age, most respondents were aged between 30–39 (48.9%), while the rest were distributed among the age groups of 18–29 (37%), 40–49 (10.5%), and over 50 (3.6%). Regarding education level, 0.5% of the respondents had received primary education, 17.2% had received middle school education, 37% had high school education, and 45.3% had received university or higher education.

Specifically, 269 valid questionnaires (48.7%) and 283 questionnaires (51.3%) were collected from self-service fitness centers without staff (group 1) and with staff (group 2), respectively. We used a chi-square test to examine the differences in gender, age, and educational level distributions between the groups, as shown in Table 1. The results indicate no significant differences in the basic characteristics of the respondents under the two different staff service methods ($p > 0.05$).

Table 1. Respondent Profile and Chi-Square Test Results for Different Sample Groups.

Variable	Category	Total Sample		Grp1 (without Staff)		Grp2 (with Staff)		χ^2	p
		n	%	n	%	n	%		
Gender	Male	315	57.1	144	53.5%	171	60.4%	2.674	0.102
	Female	237	42.9	125	46.5%	112	39.6%		
Age	18–29	204	37.0	100	37.2%	104	36.7%	3.335	0.343
	30–39	270	48.9	132	49.1%	138	48.8%		
	40–49	58	10.5	31	11.5%	27	9.5%		
	50 and above	20	3.6	6	2.2%	14	4.9%		
Education level	Elementary School	3	0.5	2	0.7%	1	0.4%	1.594	0.661
	Middle School	95	17.2	48	17.8%	47	16.6%		
	High School	204	37.0	93	34.6%	111	39.2%		
	College and Above	250	45.3	126	46.8%	124	43.8%		

3.5. Common Method Bias

Harman's single-factor test was used to examine the potential common method variance issue in the study. After conducting a factor analysis on all the items in the measurement model, the results of the principal component analysis indicated that the variance contribution rate of the first factor was 26.042%, which is lower than the 50% threshold. This implies that the single-factor bias is less than 50%; hence, common method bias is not a major concern in this study [117].

3.6. Data Analysis

This study adopted Partial Least Squares Structural Equation Modeling (PLS-SEM) to implement the two main steps of data analysis, which include the evaluation of the measurement model and the structural model [118]. Hair et al. emphasized the value of PLS-SEM for analyzing both small and large amounts of data. Moreover, compared to covariance SEM, it is more suitable for the analysis of complex models and has stronger predictive power, making it more applicable for the exploration or expansion of theoretical

models [119]. At the same time, PLS-SEM is considered more effective in testing mediation relationships, which aligns with our research purpose [120]. We used the SmartPLS 4.0 software to perform the following analysis of the obtained data, which will be detailed in the next chapter.

Firstly, we assessed the measurement model following the empirical rules for reflective measurement indicator evaluation proposed by Hair et al. [121], reporting internal consistency reliability, convergence validity, and discriminant validity. Secondly, we evaluated the structural model, again following the empirical rules proposed by Hair et al., sequentially reporting predictor collinearity, the coefficient of determination R^2 of endogenous latent variables, the effect size f^2 of exogenous constructs on the determination coefficient of endogenous constructs, the predictive relevance Stone–Geisser Q^2, and the Bootstrap method significance of path coefficients. Finally, Partial Least Squares Multi-Group Analysis (PLS-MGA) was utilized to explore the differences between the with staff and without staff service methods in the proposed model.

4. Results

4.1. Assessment of the Measurement Model

The result shows that all constructs demonstrate good reliability and convergent and discriminant validity. Firstly, concerning internal consistency reliability, the results are shown in Table 2. The minimum values for Cronbach's alpha coefficient and Composite Reliability (CR) are 0.705 and 0.836, respectively, both of which are above 0.7, indicating good consistency reliability.

Tests were conducted using outer loadings of reflective indicators and the Average Variance Extracted (AVE) to evaluate the convergence validity. Table 2 shows that the outer loadings of all items are above 0.6 [112]. The AVEs for all constructs are greater than 0.5 (minimum value = 0.555), indicating that the constructs in the model explain 50% or more variance of the items constituting the constructs, thus proving adequate convergent validity.

Table 2. Measurement model assessment.

Constructs		Items		Loadings	CA	CR	AVE
1st Order							
Service Convenience	Access	Acc1	It was easy to contact my FC	0.815	0.797	0.881	0.711
		Acc2	It did not take much time to reach this FC	0.845			
		Acc3	I can easily figure out the location of this FC	0.868			
	Transaction	Tra1	This FC allows diversified methods of payment	0.842	0.816	0.891	0.732
		Tra2	The method of payment provided by this FC is convenient	0.860			
		Tra3	I was able to complete my purchase quickly in this FC	0.863			
	Benefit	Ben1	I could easily obtain benefits from the services provided by this FC	0.818	0.705	0.836	0.629
		Ben2	The services in this FC were easy to use	0.772			
		Ben3	The speed of providing services in this FC met my requirements	0.788			
	Post-benefit	Pb1	When I had a problem, this FC resolved my problem quickly	0.818	0.804	0.885	0.719
		Pb2	This FC enabled me to arrange my next exercise programs/plans with minimal effort	0.877			
		Pb3	This FC has a good channel to handle complaints and recommendations	0.848			

Table 2. *Cont.*

Constructs		Items		Loadings	CA	CR	AVE
Service Quality	Staff	Sta1	Possession of required knowledge/skills	0.774	0.859	0.899	0.641
		Sta2	Willingness to help	0.809			
		Sta3	Responsiveness to complaints	0.801			
		Sta4	Courtesy	0.727			
		Sta5	Provision of consistency of service	0.886			
	Program	Pro1	Variety of programs	0.839	0.866	0.904	0.653
		Pro2	Availability of programs at appropriate level	0.830			
		Pro3	Convenience of program time/schedule	0.744			
		Pro4	Quality/content of programmers	0.866			
		Pro5	Adequacy of space	0.754			
	Locker Room	LR1	Availability of lockers	0.862	0.761	0.863	0.678
		LR2	Overall maintenance	0.848			
		LR3	Safety	0.756			
	Physical Facility	PF1	Convenience of location	0.836	0.853	0.896	0.634
		PF2	Hours of operation	0.794			
		PF3	Parking lot safety	0.715			
		PF4	Temperature control	0.737			
		PF5	Lighting control	0.885			
	Workout Facility	WF1	Pleasantness of environment	0.860	0.910	0.930	0.690
		WF2	Modern-looking equipment	0.850			
		WF3	Adequacy of signs and directions	0.840			
		WF4	Variety of equipment	0.790			
		WF5	Availability of workout facility/equipment	0.806			
		WF6	Overall maintenance	0.833			
	Self-service	Ss1	SST provides efficient services	0.827	0.812	0.877	0.640
		Ss2	SST can be used effortlessly	0.773			
		Ss3	Smooth service completion through SST	0.826			
		Ss4	SST service items/functions are error-free	0.772			
Satisfaction		Sat1	I am satisfied with the programs and services of this FC	0.770	0.825	0.884	0.656
		Sat2	I am happy with the programs and services of this FC	0.846			
		Sat3	I am pleased to have taken the decision to become a member of this FC	0.796			
		Sat4	My decision to be a member of this FC was successful	0.826			
Word-of-Mouth Intentions		WOM1	Say positive things about this FC to other people	0.841	0.759	0.861	0.674
		WOM2	Recommend this FC to someone who seeks my advice	0.828			
		WOM3	Encourage friends and relatives to do business with my FC	0.793			
Repatronage Intentions		RI1	Given the opportunity, I intend to exercise at this FC	0.865	0.843	0.895	0.680
		RI2	I am likely to exercise at this FC	0.805			
		RI3	It is likely that I will actually exercise at this FC in the near future	0.847			
		RI4	Given the opportunity, I would consider exercising at this FC in the future.	0.779			

Table 2. *Cont.*

Constructs		Items	Loadings	CA	CR	AVE
2nd Order						
Service Convenience	Acc	Access convenience	0.729			
	Tra	Transaction convenience	0.770			
	Ben	Benefit convenience	0.825	0.873	0.857	0.601
	Pb	Post-benefit convenience	0.773			
Service Quality	Sta	Staff	0.751			
	Pro	Program	0.789			
	LR	Locker Room	0.638			
	PF	Physical Facility	0.723	0.937	0.882	0.555
	WF	Workout Facility	0.812			
	Ss	Self-service	0.745			

Note: CA = Cronbach's alpha; CR = Composite reliability; AVE = Average Variance Extracted.

The test of discriminant validity includes indicators such as cross-loadings, HTMT, and the Fornell–Larcker criterion. Firstly, the evaluation criterion for cross-loadings of each measurement model factor is that an indicator's outer loading on a construct should be higher than all its cross-loadings with other constructs. After testing, no cross-loadings occurred in each first-order construct in this study, indicating that all indicators in this study can be well distinguished. Secondly, the Heterotrait Monotrait Ratio (HTMT) criterion stipulates that the HTMT ratios between all first-order constructs should not exceed 0.85, and the confidence intervals of the HTMT statistics should not include 1. In this study, service convenience and service quality used high-order variable statistics. As shown in Table 3, the HTMT values of all variables were less than 0.85, demonstrating good discriminant validity. The HTMT statistical values of the without staff and with staff sample groups also passed the test criteria, as shown in Tables A1 and A2 in the Appendix A. Finally, the Fornell–Larcker criterion was used to test the discriminant validity between constructs [112]. As shown in Table 4, after comparison, the square roots of the AVE of each construct were greater than the absolute values of the correlation coefficients between each construct. In both the without staff and with staff sample groups, there was also good discriminant validity between the constructs. Test results can be found in Tables A3 and A4 in the Appendix A. A combination of these tests indicated that the measurement model of this study has good reliability, convergent validity, and discriminant validity.

Table 3. HTMT statistics.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)					
Service Quality (SQ)	0.466				
Satisfaction (Sat)	0.603	0.523			
Repatronage intentions (RI)	0.534	0.494	0.688		
Word-of-Mouth intentions (WOM)	0.512	0.524	0.662	0.581	

Note: The values of service quality and convenience are derived from higher-order constructs.

Table 4. Fornell-Larcker Criterion.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)	0.775				
Service Quality (SQ)	0.423	0.744			
Satisfaction (Sat)	0.513	0.462	0.81		
Repatronage intentions (RI)	0.46	0.44	0.574	0.825	
Word-of-Mouth intentions (WOM)	0.421	0.444	0.533	0.473	0.821

Note: The diagonal values are the square root of the Average Variance Extracted (AVE).

4.2. Assessment of the Structural Model

Following the assessment of the measurement model, empirical guidance provided by Hair was still adhered to in progressively testing the structural model [121]. The results are shown in Table 5. Firstly, the collinearity issues of the predictive constructs were examined to ensure that they would not bias the regression results. The results show that the maximum Variance Inflation Factor (VIF) of the predicting constructs in the model is 1.507, which is less than 3, suggesting that there are no collinearity issues between the constructs. Subsequently, the R2 values of the endogenous constructs were evaluated to assess the predictive power of the model. The results show that the R^2 values of service quality, customer satisfaction, WOM intentions, and repatronage intentions are 0.179, 0.336, 0.348, and 0.390, respectively. According to the empirical standard, the R^2 values of the endogenous constructs of 0.75, 0.50, or 0.25 can be described as strong, moderate, or weak, respectively.

Table 5. Path test results and hypotheses.

Hypothesis	Path	β	S.E.	t	p	f^2	VIF	R^2	Q^2	Result
H1	SQ→Sat	0.298	0.044	6.742	0.000	0.110	1.219	0.336	0.217	Supported
H2a	SQ→WOM	0.217	0.047	4.653	0.000	0.054	1.353	0.348	0.226	Supported
H2b	SQ→RI	0.180	0.040	4.453	0.000	0.039	1.353	0.390	0.261	Supported
H3	SC→SQ	0.423	0.047	8.983	0.000	0.219	1.000	0.179	0.066	Supported
H4	SC→Sat	0.387	0.045	8.659	0.000	0.185	1.219			Supported
H5a	SC→WOM	0.145	0.050	2.932	0.003	0.022	1.444			Supported
H5b	SC→RI	0.180	0.039	4.645	0.000	0.037	1.444			Supported
H6a	Sat→WOM	0.358	0.045	7.966	0.000	0.130	1.507			Supported
H6b	Sat→RI	0.398	0.040	10.054	0.000	0.173	1.507			Supported

Note: SC = Service Convenience; SQ = Service Quality; Sat = Satisfaction; RI = Repatronage Intentions; WOM = Word-of-Mouth Intentions.

In the third step, the effect size (f^2) was evaluated to examine the relative impact of the predictor constructs on the endogenous constructs. According to the guiding principle of f^2, values above 0.02, 0.15, and 0.35 represent small, medium, and large f^2 effect sizes, respectively. The f^2 of each path in the model ranges from 0.022 to 0.219, indicating a small to moderate effect size. Among them, the relationships between service convenience, service quality (f^2 = 0.219), and customer satisfaction (f^2 = 0.185) and the relationship between customer satisfaction and repatronage intentions (f^2 = 0.173) show a moderate impact.

In the fourth step, the Q^2 value was utilized to assess the predictive relevance. The Stone–Geisser Q^2, obtained based on the blindfolding procedure, can provide information on the model's predictive ability for specific endogenous construct data. The Q^2 values of service quality, customer satisfaction, WOM intentions, and repatronage intentions in the model are 0.066, 0.217, 0.261, and 0.226, respectively. According to the guidance, a Q^2 value greater than 0 indicates that the model has predictive relevance to the endogenous constructs, while a value of 0 or less indicates a lack of predictive relevance. The results show that the model has sufficient predictive ability. However, in recent studies, numerous scholars have raised concerns about the Stone–Geisser Q^2 evaluation method and introduced a new predictive standard for assessing model predictability, PLS predict, which includes the Q^2 Predict, RMSE, and MAE statistics [122]. By evaluating the difference between Q^2 Predict and the simple linear model baseline, as well as comparing the RMSE and MAE under PLS-SEM with the naive linear model (LM) benchmark, the predictive capability of the model is determined. Therefore, in addition to the predictive relevance of the Stone–Geisser Q^2, this study also evaluated based on this new standard.

Firstly, the latent variable Q^2 Predict was evaluated. The Q^2 Predict for service quality, satisfaction, WOM intentions, and repatronage intentions were 0.174, 0.260, 0.173, and 0.208, respectively, all of which are greater than 0. This indicates that the model's predictability is good, further confirming its predictive capability. Secondly, all measurement indicators in PLS-SEM also have a Q^2 Predict greater than 0, suggesting predictive relevance for each

metric. Additionally, by comparing all RMSE and MAE values in PLS-SEM with the LM and referring to the standards set by Hair [121], the majority of the indices in the PLS-SEM model show RSME and MAE values lower than the LM model. Therefore, the model in this study demonstrates better predictability than a simple linear model and has a moderate predictive capability.

Finally, this study evaluated the statistical significance and correlation of the model's path coefficients. The path coefficients and significance were evaluated through bootstrapping with 5000 resamples. The standardized path coefficients (β values) for the total sample group are displayed in Figure 2 and Table 5. The standardized path coefficients for the samples with and without staff will be presented in subsequent sections. Following the significance level guidance proposed by Hair et al., when the *t*-statistics > 1.96 and $p < 0.05$, the impact relationship is considered significant. The standardized path coefficient is used to indicate the strength of the relationship between the independent and dependent variables.
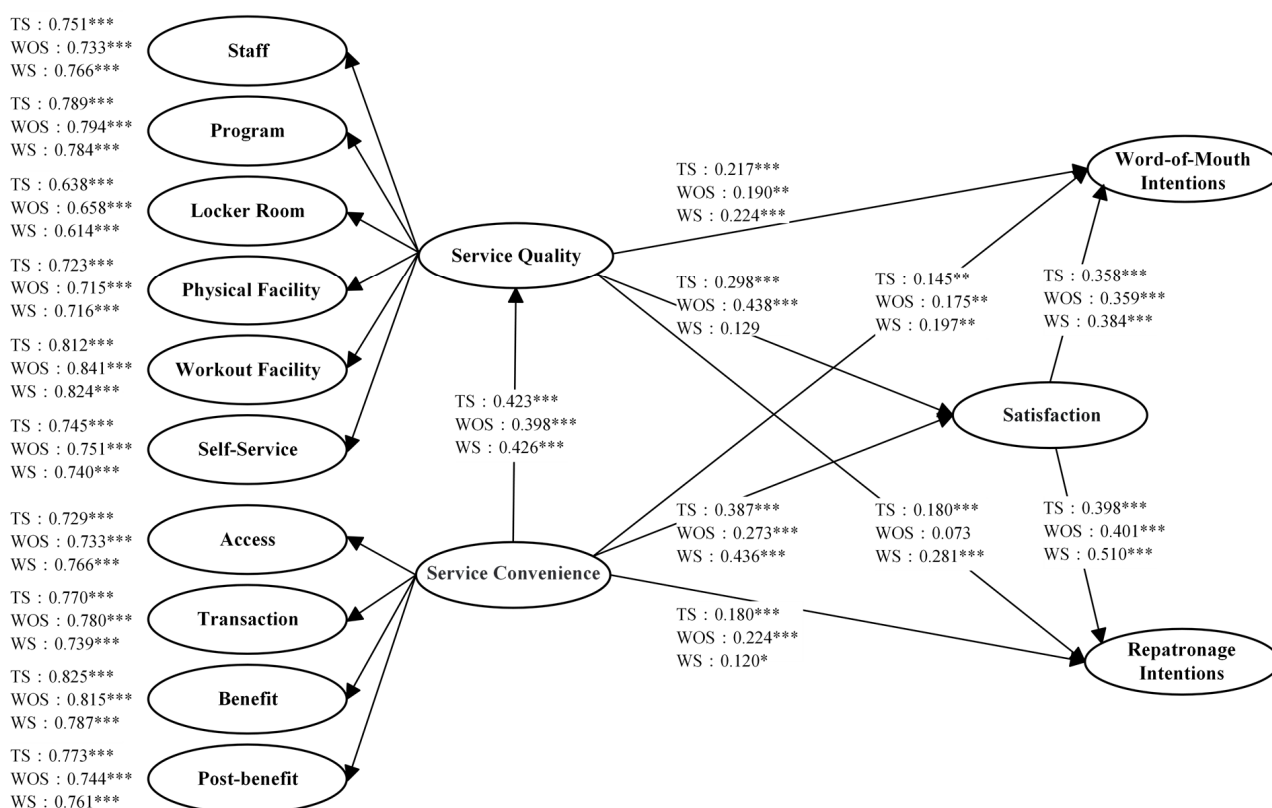

Figure 2. Results of structural model with standardized path coefficients (β-values) with multi-group analysis. Note: TS = Total sample; WOS = without staff; WS = with staff. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

The results show that all hypotheses involving direct impact relationships were accepted. Specifically, service quality has a positive impact on customer satisfaction (β = 0.298, $p < 0.001$), WOM intentions (β = 0.217, $p < 0.001$), and repatronage intentions (β = 0.180, $p < 0.001$); therefore hypotheses H1, H2a, and H2b were confirmed. Next, there is a positive relationship between service convenience and service quality (β = 0.423, $p < 0.001$), customer satisfaction (β = 0.387, $p < 0.001$), WOM intention (β = 0.145, $p = 0.003$), and repatronage intentions (β = 0.180, $p < 0.001$), which supports hypotheses H3, H4, H5a, and H5b. Finally, the study observed that customer satisfaction has a positive impact on WOM intention (β = 0.358, $p < 0.001$) and repatronage intentions (β = 0.398, $p < 0.001$), which means H6a and H6b were supported. Among them, the strongest relationship is between service convenience and service quality (β = 0.423), followed by the relationship between

customer satisfaction and repatronage intentions (β = 0.398). The weakest relationship is between service convenience and WOM intentions (β = 0.145). In terms of significance level, except for the impact relationship between service convenience and WOM intentions showing moderate significance ($p < 0.01$), all direct impact paths show very significant impact relationships ($p < 0.001$).

4.3. Assessment of the Mediation Effect

The purpose of this section is to examine the mediating role of service quality and customer satisfaction in the relationship between service convenience and WOM intentions, as well as repatronage intentions. Bootstrapping was used with 5000 resamples, and if the 95% confidence interval of the resampled estimated distribution does not contain zero, it indicates that the mediation effect is significant [123]. As shown in Table 6, none of the upper and lower bounds of the 95% confidence intervals for the indirect effects include zero, indicating significant mediation effects, and all hypotheses regarding indirect relationships are accepted.

Table 6. Results of the mediation effect test.

Hypothesis	Mediation Path	β	S.E.	95%CI		Result
				2.50%	97.50%	
H7a	SC → SQ → WOM	0.092	0.024	0.052	0.144	Supported
H7b	SC → Sat → WOM	0.138	0.026	0.096	0.195	Supported
H7c	SC → SQ → Sat → WOM	0.045	0.009	0.029	0.067	Supported
H8a	SC → SQ → RI	0.076	0.018	0.045	0.113	Supported
H8b	SC → Sat → RI	0.154	0.025	0.111	0.207	Supported
H8c	SC → SQ → Sat → RI	0.050	0.010	0.033	0.071	Supported

Note: SC = Service Convenience; SQ = Service Quality; Sat = Satisfaction; RI = Repatronage Intentions; WOM = Word-of-Mouth Intentions.

For indirect effects on WOM intentions, the lower and upper limits of the 95% confidence interval for the mediating effect of service quality between convenience and WOM intentions are 0.052 and 0.144, respectively, and the 95% confidence interval does not contain 0. This means that service quality has a significant mediating effect between convenience and WOM intentions, and the standardized mediation effect is 0.092. Therefore, hypothesis H7a is supported. Under the same test standard, the results show that customer satisfaction has a significant mediating effect between service convenience and WOM intentions (95%CI = [0.096, 0.195], β = 0.138); therefore, hypothesis H7b is accepted. Similarly, both service quality and customer satisfaction have a significant chained mediating effect between convenience and WOM intentions (95%CI = [0.029, 0.067], β = 0.045), indicating that hypothesis H7c is supported.

Regarding the indirect effects on repatronage intentions, the results show that service quality has a significant mediating effect between convenience and repatronage intentions (95%CI = [0.045, 0.113], β = 0.076), supporting hypothesis H8a. Similarly, customer satisfaction has a significant mediating effect between convenience and repatronage intentions (95%CI = [0.111, 0.207], β = 0.154), and hypothesis H8b is supported. Finally, both service quality and customer satisfaction have a significant chained mediating effect between service convenience and repatronage intentions (95%CI = [0.033, 0.071], β = 0.050), supporting hypothesis H8c.

4.4. Multi-Group Analysis

Before embarking on multi-group analysis, this study rigorously tested the Measurement Invariance of Composite Models (MICOM). Initially, both the group without staff and the group with staff employed identical indicators and data processing methods, ensuring structural invariance. Subsequently, through MICOM, we compared the original correlation coefficients of composite scores between the two groups with their 5% quantiles. Test results can be found in Table A5 in the Appendix A. The findings indicated that the 5% quantiles

for all constructs were either less than or equal to the original correlation coefficients, with a significance p-value exceeding 0.05, thus validating composite invariance. As a result, this research fulfilled partial measurement invariance criteria.

Later, we employed the Bootstrap Multi-Group Analysis (MGA) in SmartPLS4.0 to scrutinize the variances in impact paths and structural relationships under scenarios with and without staff oversight. This method does not rely on distribution assumptions and, hence, is considered the most appropriate multi-group comparison method based on PLS [124]. According to the standard of PLS-MGA, if the *p*-value is above 0.95 or below 0.05, it can be concluded that there is a significant difference in the specific path coefficients between the comparison groups [119]. Additionally, 5000 resamples were chosen as the benchmark, and the statistics of each permutation were recorded to create a reference distribution.

As shown in Table 7, the test results reveal that, first, there is a significant difference in the impact of service quality on repatronage intentions under different staff service methods ($p = 0.015$, difference = −0.208). Specifically, under the service method "with staff", the impact of service quality on repatronage intentions ($p < 0.001$, β = 0.281) is significantly stronger than that in the "without staff" method ($p > 0.05$, β = 0.073). Moreover, it was found that there is a significant difference in the impact of service quality on customer satisfaction under the "without staff" and "with staff" conditions ($p = 0.001$, difference = 0.310), that is, under the "without staff" service method, the impact of service quality on customer satisfaction ($p < 0.001$, β = 0.438) significantly exceeds the "with staff" scenario ($p > 0.05$, β = 0.129). Besides the above two significant effects, other influence paths did not show significant differences between with staff and without staff conditions ($p > 0.05$). These results provide support for hypothesis H9, demonstrating significant differences in the impact on various construct relationships under different service interaction methods.

Table 7. Multi-group analysis results.

Path	Total Sample (TS)			without Staff (WOS)			with Staff (WS)			Difference
	β	95%CI		β	95%CI		β	95%CI		
		Lower	Upper		Lower	Upper		Lower	Upper	
SC → WOM	0.145 **	0.047	0.241	0.175 **	0.045	0.300	0.197 **	0.074	0.313	−0.022
SC → RI	0.180 ***	0.101	0.252	0.224 ***	0.097	0.345	0.120 *	0.026	0.220	0.104
SC → SQ	0.423 ***	0.326	0.512	0.398 ***	0.240	0.540	0.426 ***	0.281	0.543	−0.028
SC → Sat	0.387 ***	0.306	0.479	0.273 ***	0.180	0.357	0.436 ***	0.263	0.606	−0.164
SQ → WOM	0.217 ***	0.127	0.311	0.190 **	0.045	0.326	0.224 ***	0.113	0.345	−0.034
SQ → RI	0.180 ***	0.102	0.259	0.073	−0.061	0.215	0.281 ***	0.189	0.363	−0.208*
SQ → Sat	0.298 ***	0.202	0.379	0.438 ***	0.340	0.518	0.129	−0.027	0.281	0.310**
Sat → WOM	0.358 ***	0.268	0.444	0.359 ***	0.235	0.478	0.384 ***	0.259	0.495	−0.025
Sat → RI	0.398 ***	0.320	0.475	0.401 ***	0.283	0.511	0.510 ***	0.416	0.591	−0.109

Note: SC = Service Convenience; SQ = Service Quality; Sat = Satisfaction; RI = Repatronage Intentions; WOM = Word-of-Mouth Intentions. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

5. Discussion

SST has ushered in a "high-tech, low-touch" service paradigm for the sports and fitness industry, potentially replacing the "high-touch, low-tech" interpersonal interactions in traditional fitness centers [125]. Presently, self-service fitness services are beginning to demonstrate their industry competitiveness globally. In a competitive setting, elevating customer loyalty is vital for the sustainable progression of fitness service enterprises [55]. Yet, no current research offers pertinent managerial insights and empirical data for self-service fitness centers. Accordingly, this study proposes a structural model, integrating constructs such as service quality, service convenience, customer satisfaction, WOM intentions, and repatronage intentions. By means of empirical analysis, the study investigates the factors and mechanisms that influence customer loyalty in self-service fitness centers and further analyses the relationship between service convenience and service quality. Additionally,

we contemplate the differential impacts of varied service interaction methods, with and without staff. The research results reveal the influence relationships among the constructs. Additionally, different methods of service exert a significant influence on these relationships. The discussion of this paper is as follows.

5.1. Theoretical Implications

5.1.1. Discussion Based on Total Sample Groups

Initially, the study results exhibit a significant positive impact of service quality and service convenience in self-service fitness centers on customer loyalty, WOM intentions, and repatronage intentions. This finding emphasizes the pivotal role of superior and convenient services in the process of forming customer loyalty. This aligns with the research findings by Zopiatis and García-Fernández in hotel fitness centers and low-cost fitness centers, indicating service quality and convenience as key determinants of customer satisfaction and loyalty [3,71]. This underlines the central and universal role of service quality and service convenience in the management strategy across the entire fitness service industry. In contrast, this study further deepens our understanding of the impact of antecedents of customer loyalty on specific customer behavioral intentions. For instance, a high level of convenience favors customer repatronage, while a high level of service quality promotes customers' WOM intentions.

Additionally, this study reemphasizes the significant correlation between customer satisfaction and customer loyalty. The results show that customer satisfaction has a significant positive impact on WOM intentions and repatronage intentions and mediates the influence of service convenience and service quality on WOM intentions and repatronage intentions. This aligns with the results of numerous studies in the service industry [88,89], indicating that customer satisfaction directly impacts customer loyalty and can mediate the association between service quality, service convenience, and behavioral intentions. Therefore, in self-service fitness centers, when customers are satisfied with the service, they are more likely to form positive behavioral intentions and higher loyalty. In contrast to research results that view satisfaction as a prerequisite for service quality [126], this study provides empirical support for the view that satisfaction is the result of service quality [62].

Furthermore, our research provides new empirical evidence for the influence study of service convenience and service quality. Although existing research has proven the impact of service convenience on response variables such as customer satisfaction, to eliminate confusion, researchers have called for further exploration of whether this relationship is mediated by variables such as service quality [8]. Based on literature review findings, few researchers in the fitness service field, compared to other service areas, have examined the possible association between the two. Our study narrows this gap, and the results show that, in the context of self-service fitness centers, service convenience has a very significant positive impact on service quality, and service quality plays a significant mediating and chained mediating role between service convenience and behavioral intentions (WOM intentions and repatronage intentions). This means that customers regard their perception of service convenience as an important source for evaluating service quality, and service convenience can indirectly enhance customer satisfaction and loyalty through service quality. From the consumer's perspective, the underlying reason may be that customers who choose self-service fitness centers are more constrained by time and effort and, therefore, place greater emphasis on the convenience of the fitness experience [106]. For service providers, this, to a certain extent, underscores the positive impact of the value of convenience brought about by self-service technologies in the fitness service environment on customer service quality evaluation. This result is different from the view of Brady and others, who regard service convenience as a component of service quality [127]. This study supports the view of treating service convenience as a precursor to service quality and customer satisfaction [73]. Our research findings further enrich our understanding of the influencing path of customer loyalty in fitness centers. Relying on a high degree of service

convenience to enhance customers' perception of service quality has become a potential and feasible path to cultivating customer loyalty.

5.1.2. Comparison of Groups without and with Staff

1. Significant Impact Differences

This study reveals two significant differential impacts on the aforementioned structural relationships based on the presence of "with staff" or "without staff" service methods. Firstly, prior research in the fitness service domain universally posited that face-to-face interactions between staff and customers play a pivotal role in shaping the service experience and are deemed a prerequisite for customer satisfaction [62]. Yet, this study indicates that in fitness centers without staff, the positive influence of service quality on customer satisfaction substantially exceeds those with staff (p = 0.001, difference = 0.310). This might correlate with customers' preference for unsupervised environments and selecting their workout routines autonomously. Therefore, although earlier studies affirmed the critical nature of direct interactions with staff in elevating customer satisfaction in fitness centers [99], this assertion may not hold for self-service fitness centers. Secondly, in fitness centers with staff, the effect of service quality on customers' repatronage intentions is significantly more pronounced than in those without staff (p = 0.015, difference = −0.208). This finding could resonate with the perspectives of Foroughi et al. [54], suggesting that fitness centers with staff might boost customers' repatronage intentions by providing an enhanced sense of security and social engagement.

2. General Impact Differences

Furthermore, for both with staff and without staff service methods, the study found that except for the relationship of service convenience to customer repatronage intentions (β = 0.224, p < 0.001 for the without staff group; β = 0.120, p < 0.05 for the with staff group), all other influential paths demonstrated greater predictive power under the with staff method, albeit with minor differences between the two methods. These findings are intriguing. Firstly, the results indicate that service convenience plays a more decisive role in customer repatronage intentions in the without staff method. Evidently, enhancing fitness service convenience through SST bolsters customer loyalty. Secondly, despite the paradigm shift introduced by self-service technologies in the mode of service interaction, having staff present in fitness service contexts remains paramount. This suggests that although user perceptions towards tech-driven fitness activities are evolving, they have not yet overturned the value placed on traditional face-to-face service methods. This aligns with views in other studies regarding the significance of staff presence [96].

5.2. Practical Implications

5.2.1. Implications from Total Sample

The findings of this study offer practical insights into improving customer loyalty and retention in self-service fitness centers. The results show that customers' positive evaluations of service quality and convenience improve customer satisfaction, which further affects WOM and repatronage intentions. These findings are crucial for the sustainable development of companies. Accordingly, improving service quality standards and reducing the time and effort customers put in should become key strategies for customer management. Meanwhile, businesses need to ensure that customers are satisfied with the service, as it directly affects their behavioral intentions and loyalty.

Furthermore, based on the most important influencing dimensions in service quality and service convenience, our research found that customers' evaluations of "fitness facilities" and "benefit convenience" dominated their assessments of customer satisfaction, WOM, and repatronage intentions. In terms of fitness facilities, customers are most concerned about the suitability of the environment. This finding is consistent with previous research that environmental elements such as cleanliness, the fitness center itself, and the size of the exercise space are very important in building customer satisfaction as predictors

of customer satisfaction [128–130]. Meanwhile, it is noteworthy that "self-service" has not become the dominant dimension impacting the quality of fitness center services, a result differing from the perception of self-service technologies in leisure service industries such as tourism [131]. Although self-service has shown a positive influence on customer satisfaction and loyalty in fitness centers through service quality, it has not shown a significant impact. According to Howat et al., this may be attributed to customers' differing views on the core and non-core services provided by fitness centers, where SSTs could be considered non-core or auxiliary services [132]. Another possible reason could be customer dissatisfaction or skepticism towards SSTs. Hence, it is recommended that managers prioritize the enhancement of service quality indicators with greater impact while collecting feedback from customers to better understand the problems and challenges they encounter when using self-service. In terms of benefit convenience, customers value the ease of benefiting from the fitness center. This is consistent with the research conclusion of Chang et al. that in long-term highly participatory services such as fitness and leisure services, consumers value the service outcomes obtained when experiencing the service [106]. Therefore, in specific operational practices, focusing on the environmental quality of fitness facilities and ensuring that customers find each fitness experience convenient will bring more positive benefits to the company.

5.2.2. Implications of Groups without and with staff

1.   Service Quality Management

Firstly, the research unveiled similarities in service quality indicators across different service methods, whether with staff or without. Specifically, the "workout facilities" indicator remains the paramount criterion for assessing service quality, as evidenced by its high loading values (0.841, $p < 0.001$ for the without staff group; 0.824, $p < 0.001$ for the With Staff group). This suggests that customers prioritize the quality, diversity, and availability of fitness equipment. Superior fitness facilities continue to be foundational in attracting customers. This finding is consistent with the views of customers of other types of fitness centers regarding service quality [62]. Additionally, regardless of the presence of staff, the "program" indicator ranks second (0.794, $p < 0.001$ for the without staff group; 0.784, $p < 0.001$ for the with staff group), indicating that courses or training programs offered by self-service fitness centers are also of significant importance to customers, who seek a variety of options to fulfill their fitness needs.

On the other hand, there are discernible differences between the two service methods regarding their impact on service quality. For the method without staff, the third pivotal indicator is "self-service" (0.751, $p < 0.001$). This is likely because, in scenarios without staff, the convenience, user-friendliness, and efficiency of self-service become key factors influencing the fitness experience. In contrast, in fitness centers with staff, the "staff" indicator takes the third spot (0.766, $p < 0.001$), underscoring the significance of staff expertise, service attitude, and interactive capabilities for customers opting for this method. Such customers might expect professional guidance or prompt answers to their queries.

2.   Service Convenience Management

In terms of similarities between the two service methods, research indicates that whether with staff or without staff, "benefit convenience" consistently stands out as the primary criterion for clients when assessing the service convenience of self-service fitness centers (0.815, $p < 0.001$ for the without staff group; 0.787, $p < 0.001$ for the with staff group). This underscores that clients are chiefly focused on the tangible advantages that the fitness center can offer them, such as the effectiveness of workouts and their alignment with individual needs. This insight aligns with findings from the total sample group.

Contrastingly, under the service methods without staff, "transaction convenience" emerges as the second most significant aspect (0.780, $p < 0.001$), while for centers with staff, it pivots to "access convenience" (0.766, $p < 0.001$). This may hint that in environments without staff, clients prioritize ease in transactions such as app-based bookings and digital

payments. In contrast, in contexts with staff, the ease of accessing the center, interactions with staff, and facility usage become paramount. Additionally, "post-benefit convenience" ranks third in both methods (0.744, $p < 0.001$ for the without staff group; 0.761, $p < 0.001$ for the with staff group), suggesting that post-workout offerings, such as parking ease, smooth exit strategies, and follow-up workout guidance, although appealing, are not as crucial as the first two indicators.

The findings above indicate that the service methods, whether with staff or without staff, have distinct impacts on customer service evaluations in self-service fitness centers. Consequently, fitness center managers, while designing and overseeing the service processes, should choose the service method that aligns with their resources and positioning to achieve their intended management objectives. However, it is worth noting that the two service methods did not exhibit significant differences in many impact pathways. This suggests that, in industry practice, both service methods—those with and without staff—might coexist within the self-service fitness service model for a certain period. Managers should recognize that regardless of the service method chosen, service convenience and service quality will remain pivotal in enhancing customer satisfaction and loyalty.

Beyond the specific recommendations for actual managers derived from this study, the findings further emphasize the significance of technology. With the progression and intensifying competition within the fitness industry, paying heed to the application of technology in fitness services is pivotal for the industry's long-term development. It may instigate greater innovation and investment, thus propelling industry advancement. Furthermore, on an individual level, the "low-contact" self-service model is gradually showcasing its competitive edge in the industry through its convenience [133]. This suggests that new technologies and service models can furnish individuals with more accessible and efficient service interactions and fitness experiences. From a societal perspective, this could lead to healthier lifestyles and heightened fitness participation rates.

6. Conclusions and Limitations

Overall, this study explores a type of fitness center that fully adopts SST, self-service fitness centers. As one of the few empirical studies targeting the self-service mode in fitness services, the research results provide a new perspective for understanding customer loyalty in the fitness service industry, which is of great significance for the sustainable operation of fitness centers. Through the multidimensional dimensions and projects of service quality and service convenience, this research provides specific information to the management of fitness centers to assist in improving operational practices. Compared to the aggregate measurement of customer loyalty, the separate measurement of WOM intentions and repatronage intentions provides managers with specific connections between the antecedents of loyalty and different behavioral intentions. Regarding customer perceptions of the with staff service method, the study found that in a self-service fitness environment without staff, service quality has a greater impact on customer satisfaction. Conversely, in situations without staff, high-quality service is more conducive to stimulating repatronage intentions. As the fitness service industry continues to develop and the competitive trend intensifies, it is indispensable to focus on the impact of technology adoption in fitness service scenarios. Researchers and enterprises need to timely analyze and understand the influencing factors and mechanisms of customer loyalty and seek more sustainable management plans to ensure a high level of customer retention and service experience.

Future research should consider some limitations existing in this study. First, the sample of this study comes from self-service fitness centers in first-tier cities in China. Therefore, the consumers may have a higher willingness to use SSTs. Given that the self-service fitness model is rapidly replicating and developing in developed and emerging economies, conducting relevant empirical research in different countries and regions will be more conducive to promoting and improving the research results of this service model.

Secondly, this study focuses on the specific fitness service model of self-service fitness centers, so the research results do not fully reflect the situation of all sports and fitness

centers. Compared with other types of fitness centers, customers of self-service fitness centers may pay more attention to the investment of time and energy. Therefore, replicating the current study in different types of fitness centers may have value.

Finally, it is worth noting that recent industry practices and research in the field of fitness services are showing that fitness centers are adopting digital technology more broadly to improve management levels and provide outstanding fitness experiences. In the future, examining the impact of emerging technologies and service models on service management and experience in the field of sports services will possess great research potential.

Appendix A

Table A1. HTMT statistics for the group without staff.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)					
Service Quality (SQ)	0.442				
Satisfaction (Sat)	0.524	0.614			
Repatronage intentions (RI)	0.515	0.431	0.655		
Word-of-Mouth intentions (WOM)	0.481	0.508	0.639	0.557	

Note: The values of service quality and convenience are derived from higher-order constructs.

Table A2. HTMT statistics for the group with staff.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)					
Service Quality (SQ)	0.473				
Satisfaction (Sat)	0.601	0.368			
Repatronage intentions (RI)	0.563	0.546	0.799		
Word-of-Mouth intentions (WOM)	0.685	0.595	0.812	0.734	

Note: The values of service quality and convenience are derived from higher-order constructs.

Table A3. Fornell–Larcker Criterion of the group without staff.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)	0.759				
Service Quality (SQ)	0.398	0.751			
Satisfaction (Sat)	0.447	0.547	0.818		
Repatronage intentions (RI)	0.432	0.381	0.541	0.795	
Word-of-Mouth intentions (WOM)	0.411	0.456	0.541	0.467	0.877

Note: The diagonal values are the square root of the Average Variance Extracted (AVE).

Table A4. Fornell–Larcker Criterion of the group with staff.

	SC	SQ	Sat	RI	WOM
Service Convenience (SC)	0.751				
Service Quality (SQ)	0.426	0.744			
Satisfaction (Sat)	0.491	0.315	0.761		
Repatronage intentions (RI)	0.490	0.493	0.658	0.848	
Word-of-Mouth intentions (WOM)	0.481	0.429	0.551	0.518	0.727

Note: The diagonal values are the square root of the Average Variance Extracted (AVE).

Table A5. Results of MICOM Testing.

	Original Correlation	Correlation Permutation Mean	5.00%	Permutation *p*-Value
SQ	1.000	1.000	0.999	0.649
SC	1.000	0.999	0.998	0.901
Sat	0.999	0.999	0.998	0.068
WOM	0.999	0.999	0.997	0.523
RI	0.999	0.999	0.998	0.096
Sta	0.999	1.000	0.999	0.055
Pro	1.000	1.000	0.999	0.366
LR	0.999	0.999	0.998	0.151
PF	0.999	1.000	0.999	0.056
WF	1.000	1.000	1.000	0.205
Ss	1.000	1.000	0.999	0.466
Acc	1.000	1.000	0.999	0.467
Tra	1.000	1.000	0.999	0.755
Ben	0.999	0.999	0.998	0.337
Pb	1.000	1.000	0.999	0.702

Note: The '5%' represents the 5% quantiles of the original correlation coefficients between the two groups.

References

1. Abu-Omar, K.; Gelius, P.; Messing, S. The Evolution of Physical Activity Promotion. Are We Entering a Liquid Age? *Glob. Health Promot.* **2020**, *27*, 15–23. [CrossRef]
2. Ong, A.K.S.; Prasetyo, Y.T.; Picazo, K.L.; Salvador, K.A.; Miraja, B.A.; Kurata, Y.B.; Chuenyindee, T.; Nadlifatin, R.; Redi, A.A.N.P.; Young, M.N. Gym-Goers Preference Analysis of Fitness Centers during the COVID-19 Pan-demic: A Conjoint Analysis Approach for Business Sustainability. *Sustainability* **2021**, *13*, 10481. [CrossRef]
3. García-Fernández, J.; Gálvez-Ruíz, P.; Fernández-Gavira, J.; Vélez-Colón, L.; Pitts, B.; Bernal-García, A. The Effects of Service Convenience and Perceived Quality on Perceived Value, Satisfaction and Loyalty in Low-Cost Fitness Centers. *Sport Manag. Rev.* **2018**, *21*, 250–262. [CrossRef]
4. Liao, W.; Cao, X.; Liu, Y.; Huang, Y. Investigating Differential Effects of Airport Service Quality on Behavioral Intention in the Multi-Airport Regions. *Res. Transp. Bus. Manag.* **2022**, *45*, 100877. [CrossRef]
5. Zeithaml, V.A.; Bitner, M.J.; Gremler, D.D. *Services Marketing: Integrating Customer Focus across the Firm*; McGraw-Hill/Irwin: New York, NY, USA, 2006.
6. Zeithaml, V.A.; Berry, L.L.; Parasuraman, A. The Behavioral Consequences of Service Quality. *J. Mark.* **1996**, *60*, 31–46. [CrossRef]
7. Montes, F.J.L.; Fuentes, M.d.M.F. *Gestión de La Calidad Empresarial: Fundamentos e Implantación*; Pirámide: Paris, France, 2005.
8. Bhatt, K. Service Convenience: Review and Directions. *Int. J. Serv. Econ. Manag.* **2017**, *8*, 208–226. [CrossRef]
9. Roy, S.K.; Shekhar, V.; Quazi, A.; Quaddus, M. Consumer Engagement Behaviors: Do Service Convenience and Organizational Characteristics Matter? *J. Serv. Theory Pract.* **2020**, *30*, 195–232. [CrossRef]
10. Wong, A. Consumer Perceptions of Service Convenience in Hedonic and Utilitarian Retail Settings in China. *J. Int. Consum. Mark.* **2021**, *33*, 452–470. [CrossRef]
11. Tseng, H.-T.; Lo, C.-L.; Chen, C.-C. The Moderation Role of AI-Enabled Service Quality on the Attitude Toward Fitness Apps. *J. Glob. Inf. Manag.* **2023**, *31*, 1–20. [CrossRef]
12. Baena-Arroyo, M.J.; García-Fernández, J.; Gálvez-Ruiz, P.; Grimaldi-Puyana, M. Analyzing Consumer Loyalty through Service Experience and Service Convenience: Differences between Instructor Fitness Classes and Virtual Fitness Classes. *Sustainability* **2020**, *12*, 828. [CrossRef]
13. Barbosa, H.F.; García-Fernández, J.; Pedragosa, V.; Cepeda-Carrion, G. The Use of Fitness Centre Apps and Its Relation to Customer Satisfaction: A UTAUT2 Perspective. *Int. J. Sports Mark. Spons.* **2021**, *23*, 966–985.
14. Xu, K.K.; Chen, K.K.; Kim, E.; García-Fernández, J.; Nauright, J.; Zhang, J.J. Dimensions of Service Quality in Health-Fitness Clubs in China. *Int. J. Environ. Res. Public Health* **2021**, *18*, 10567. [CrossRef]

15. Ganguli, S.; Roy, S.K. Generic Technology-Based Service Quality Dimensions in Banking: Impact on Customer Satisfaction and Loyalty. *Int. J. Bank Mark.* **2011**, *29*, 168–189. [CrossRef]

16. Orel, F.D.; Kara, A. Supermarket Self-Checkout Service Quality, Customer Satisfaction, and Loyalty: Empirical Evidence from an Emerging Market. *J. Retail. Consum. Serv.* **2014**, *21*, 118–129. [CrossRef]

17. Söderlund, M. Measuring Customer Loyalty with Multi-item Scales: A Case for Caution. *Int. J. Serv. Ind. Manag.* **2006**, *17*, 76–98. [CrossRef]

18. Meuter, M.L.; Ostrom, A.L.; Roundtree, R.I.; Bitner, M.J. Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. *J. Mark.* **2000**, *64*, 50–64. [CrossRef]

19. Dabholkar, P.A. Technology-Based Service Delivery: A Classification Scheme for Developing Marketing Strategies. *Adv. Serv. Mark. Manag.* **1994**, *3*, 241–271.

20. Shiwen, L.; Kwon, J.; Ahn, J. Self-Service Technology in the Hospitality and Tourism Settings: A Critical Review of the Literature. *J. Hosp. Tour. Res.* **2022**, *46*, 1220–1236. [CrossRef]

21. Gounaris, S.; Dimitriadis, S.; Stathakopoulos, V. An Examination of the Effects of Service Quality and Satisfaction on Customers' Behavioral Intentions in e-Shopping. *J. Serv. Mark.* **2010**, *24*, 142–156. [CrossRef]

22. Taillon, B.J.; Huhmann, B.A. Strategic Consequences of Self-Service Technology Evaluations. *J. Strateg. Mark.* **2019**, *27*, 268–279. [CrossRef]

23. Kelly, P.; Lawlor, J.; Mulvey, M. Customer Roles in Self-Service Technology Encounters in a Tourism Context. *J. Travel Tour. Mark.* **2017**, *34*, 222–238. [CrossRef]

24. Castillo-Manzano, J.I.; López-Valpuesta, L. Check-in Services and Passenger Behaviour: Self Service Technologies in Airport Systems. *Comput. Hum. Behav.* **2013**, *29*, 2431–2437. [CrossRef]

25. Wei, W.; Torres, E.N.; Hua, N. The Power of Self-Service Technologies in Creating Transcendent Service Experiences: The Paradox of Extrinsic Attributes. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 1599–1618. [CrossRef]

26. Collier, J.E.; Kimes, S.E. Only If It Is Convenient: Understanding How Convenience Influences Self-Service Technology Evaluation. *J. Serv. Res.* **2013**, *16*, 39–51. [CrossRef]

27. Shahid Iqbal, M.; Ul Hassan, M.; Habibah, U. Impact of Self-Service Technology (SST) Service Quality on Customer Loyalty and Behavioral Intention: The Mediating Role of Customer Satisfaction. *Cogent Bus. Manag.* **2018**, *5*, 1. [CrossRef]

28. Na, T.-K.; Lee, S.-H.; Yang, J.-Y. Moderating Effect of Gender on the Relationship between Technology Readiness Index and Consumers' Continuous Use Intention of Self-Service Restaurant Kiosks. *Information* **2021**, *12*, 280. [CrossRef]

29. Yoon, C.; Choi, B. Role of Situational Dependence in the Use of Self-Service Technology. *Sustainability* **2020**, *12*, 4653. [CrossRef]

30. Shim, H.-S.; Han, S.-L.; Ha, J. The Effects of Consumer Readiness on the Adoption of Self-Service Technology: Moderating Effects of Consumer Traits and Situational Factors. *Sustainability* **2020**, *13*, 95. [CrossRef]

31. Ding, D.X.; Hu, P.J.-H.; Sheng, O.R.L. E-SELFQUAL: A Scale for Measuring Online Self-Service Quality. *J. Bus. Res.* **2011**, *64*, 508–515. [CrossRef]

32. Isa, S.M.; Kiumarsi, S. The Impact of Service Quality in Postal Services: The Mediating Role of Self-Service Technology. *Int. J. Serv. Oper. Manag.* **2019**, *33*, 395–419.

33. Collier, J.E.; Moore, R.S.; Horky, A.; Moore, M.L. Why the Little Things Matter: Exploring Situational Influences on Customers' Self-Service Technology Decisions. *J. Bus. Res.* **2015**, *68*, 703–710. [CrossRef]

34. Introduction of SUPERMONKEY Stores. Available online: https://www.supermonkey.com.cn/pc/about_us/ (accessed on 1 August 2023).

35. Demirel, D. The Effect of Service Quality on Customer Satisfaction in Digital Age: Customer Satisfaction Based Examination of Digital CRM. *J. Bus. Econ. Manag.* **2022**, *23*, 507–531. [CrossRef]

36. Álvarez-García, J.; González-Vázquez, E.; Del Río-Rama, M.d.l.C.; Durán-Sánchez, A. Quality in Customer Service and Its Rela-tionship with Satisfaction: An Innovation and Competitiveness Tool in Sport and Health Centers. *Int. J. Environ. Res. Public Health* **2019**, *16*, 3942. [CrossRef] [PubMed]

37. Zeithaml, V.A.; Parasuraman, A.; Berry, L.L. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*; Simon and Schuster: New York, NY, USA, 1990.

38. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. A Conceptual Model of Service Quality and Its Implications for Future Research. *J. Mark.* **1985**, *49*, 41–50. [CrossRef]

39. Parasuraman, A.; Zeithaml, V.A.; Berry, L. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *J. Retail.* **1988**, *64*, 12–40.

40. Cronin, J.J., Jr.; Taylor, S.A. Measuring Service Quality: A Reexamination and Extension. *J. Mark.* **1992**, *56*, 55–68. [CrossRef]

41. Bitner, M.J.; Hubbert, A.R. Encounter Satisfaction versus Overall Satisfaction versus Quality. *Serv. Qual. New Dir. Theory Pract.* **1994**, *34*, 72–94.

42. Carman, J.M. Consumer Perceptions of Service Quality: An Assessment of T. *J. Retail.* **1990**, *66*, 33.

43. Kim, D.; Kim, S.Y. QUESC: An Instrument for Assessing the Service Quality of Sport Centers in Korea. *J. Sport Manag.* **1995**, *9*, 208–220. [CrossRef]

44. Ko, Y.J.; Pastore, D.L. A Hierarchial Model of Service Quality for the Recreational Sport Industry. *Sport Mark. Q.* **2005**, *14*, 84–97.

45. Lam, E.T.C.; Zhang, J.J.; Jensen, B.E. Service Quality Assessment Scale (SQAS): An Instrument for Evaluating Service Quality of Health-Fitness Clubs. *Meas. Phys. Educ. Exerc. Sci.* **2005**, *9*, 79–111. [CrossRef]

46. Koay, K.Y.; Cheah, C.W.; Chang, Y.X. A Model of Online Food Delivery Service Quality, Customer Satisfaction and Customer Loyalty: A Combination of PLS-SEM and NCA Approaches. *Br. Food J.* **2022**, *124*, 4516–4532. [CrossRef]

47. Choi, H.; Joung, H.-W.; Choi, E.-K.; Kim, H.-S. Understanding Vegetarian Customers: The Effects of Restaurant Attributes on Customer Satisfaction and Behavioral Intentions. *J. Foodserv. Bus. Res.* **2022**, *25*, 353–376. [CrossRef]

48. Veloso, C.M.; Sousa, B.B. Drivers of Customer Behavioral Intentions and the Relationship with Service Quality in Specific Industry Contexts. *Int. Rev. Retail. Distrib. Consum. Res.* **2022**, *32*, 43–58. [CrossRef]

49. PJ, S.; Singh, K.; Kokkranikal, J.; Bharadwaj, R.; Rai, S.; Antony, J. Service Quality and Customer Satisfaction in Hospitality, Leisure, Sport and Tourism: An Assessment of Research in Web of Science. *J. Qual. Assur. Hosp. Tour.* **2023**, *24*, 24–50.

50. Oliver, R.L. A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *J. Mark. Res.* **1980**, *17*, 460–469. [CrossRef]

51. Westbrook, R.A.; Reilly, M.D. *Value-Percept Disparity: An Alternative to the Disconfirmation of Expectations Theory of Consumer Satisfaction*; ACR North American Advances: Denver, CO, USA, 1983.

52. Richard, L.O. *Satisfaction: A Behavioral Perspective on the Consumer*; McGraw Hill: New York, NY, USA, 1997.

53. Olsen, L.L.; Johnson, M.D. Service Equity, Satisfaction, and Loyalty: From Transaction-Specific to Cumulative Evaluations. *J. Serv. Res.* **2003**, *5*, 184–195. [CrossRef]

54. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. *J. Mark.* **1994**, *58*, 111–124. [CrossRef]

55. Oliver, R.L. Whence Consumer Loyalty? *J. Mark.* **1999**, *63*, 33–44. [CrossRef]

56. Sevilmiş, A.; Özdemir, İ.; García-Fernández, J.; Zhang, J.J. Examining the Relationships Among Perceived Quality, Perceived Value, Customer Satisfaction, and Behavioral Intention in Turkish Fitness Centers. *Phys. Cult. Sport Stud. Res.* **2022**, *96*, 40–54. [CrossRef]

57. Li, X.; Petrick, J.F. Towards an Integrative Model of Loyalty Formation: The Role of Quality and Value. *Leis. Sci.* **2010**, *32*, 201–221. [CrossRef]

58. Bagozzi, R.P. The Self-Regulation of Attitudes, Intentions, and Behavior. *Soc. Psychol. Q.* **1992**, *55*, 178–204. [CrossRef]

59. Rust, R.T.; Oliver, R.L. Service Quality: Insights and Managerial Implications from the Frontier. In *Service Quality: New Directions in Theory and Practice*; SAGE Publications: New York, NY, USA, 1994; Volume 7, pp. 1–19.

60. Taylor, S.A.; Baker, T.L. An Assessment of the Relationship between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions. *J. Retail.* **1994**, *70*, 163–178. [CrossRef]

61. Foroughi, B.; Iranmanesh, M.; Gholipour, H.F.; Hyun, S.S. Examining Relationships among Process Quality, Outcome Quality, Delight, Satisfaction and Behavioural Intentions in Fitness Centres in Malaysia. *Int. J. Sports Mark. Spons.* **2019**, *20*, 374–389. [CrossRef]

62. Ferreira, H. Determinants of Service Quality Influencing Customer Satisfaction in Fitness Centers: A Systematic Review. *Eur. J. Hum. Mov.* **2023**, *49*, 29–45. [CrossRef]

63. Bolton, R.N.; Kannan, P.K.; Bramlett, M.D. Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value. *J. Acad. Mark. Sci.* **2000**, *28*, 95–108. [CrossRef]

64. Webb, T.L.; Sheeran, P. Does Changing Behavioral Intentions Engender Behavior Change? A Meta-Analysis of the Experimental Evidence. *Psychol. Bull.* **2006**, *132*, 249–268. [CrossRef]

65. García-Pascual, F.; Prado-Gascó, V.; Alguacil, M.; Valantine, I.; Calabuig-Moreno, F. Future Intentions of Fitness Center Customers: Effect of Emotions, Perceived Well-Being and Management Variables. *Front. Psychol.* **2020**, *11*, 547846. [CrossRef]

66. García-Fernández, J.; Gálvez-Ruiz, P.; Vélez-Colon, L.; Ortega-Gutiérrez, J.; Fernández-Gavira, J. Exploring Fit-ness Centre Consumer Loyalty: Differences of Non-Profit and Low-Cost Business Models in Spain. *Econ. Res. Ekon. Istraživanja* **2018**, *31*, 1042–1058. [CrossRef]

67. El-Manstrly, D.; Harrison, T. A Critical Examination of Service Loyalty Measures. *J. Mark. Manag.* **2013**, *29*, 1834–1861. [CrossRef]

68. Bitner, M.J. Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *J. Mark.* **1990**, *54*, 69–82. [CrossRef]

69. De Ruyter, K.; Wetzels, M.; Bloemer, J. On the Relationship between Perceived Service Quality, Service Loyalty and Switching Costs. *Int. J. Serv. Ind. Manag.* **1998**, *9*, 436–453. [CrossRef]

70. Ahmad, W.; Zhang, Q. Green Purchase Intention: Effects of Electronic Service Quality and Customer Green Psychology. *J. Clean. Prod.* **2020**, *267*, 122053. [CrossRef]

71. Zopiatis, A.; Theocharous, A.L.; Constanti, P.; Tjiapouras, L. Quality, Satisfaction and Customers' Future Intention: The Case of Hotels' Fitness Centers in Cyprus. *J. Qual. Assur. Hosp. Tour.* **2017**, *18*, 1–24. [CrossRef]

72. Marquis, M. Exploring Convenience Orientation as a Food Motivation for College Students Living in Residence Halls. *Int. J. Consum. Stud.* **2005**, *29*, 55–63. [CrossRef]

73. Berry, L.L.; Seiders, K.; Grewal, D. Understanding Service Convenience. *J. Mark.* **2002**, *66*, 1–17. [CrossRef]

74. Farquhar, J.D.; Rowley, J. Convenience: A Services Perspective. *Mark. Theory* **2009**, *9*, 425–438. [CrossRef]

75. Kumar, R.; Sachan, A.; Dutta, T. Examining the Impact of E-Retailing Convenience Dimensions on Behavioral Intention: The Mediating Role of Satisfaction. *J. Internet Commer.* **2020**, *19*, 466–494. [CrossRef]

76. Jebarajakirthy, C.; Shankar, A. Impact of Online Convenience on Mobile Banking Adoption Intention: A Moderated Mediation Approach. *J. Retail. Consum. Serv.* **2021**, *58*, 102323. [CrossRef]

77. Roy, S.K.; Lassar, W.M.; Shekhar, V. Convenience and Satisfaction: Mediation of Fairness and Quality. *Serv. Ind. J.* **2016**, *36*, 239–260. [CrossRef]

78. Reynaldo, R.; Suprapto, W.; Jani, Y. Service Convenience and Service Quality to Customer Satisfaction among the Shipping Expeditions. In *Proceedings of the SHS Web of Conferences*; EDP Sciences: Les Ulis, France, 2020; Volume 76, p. 01043.

79. Zeithaml, V.A. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *J. Mark.* **1988**, *52*, 2–22. [CrossRef]

80. Reimers, V.; Chao, F. The Role of Convenience in a Recreational Shopping Trip. *Eur. J. Mark.* **2014**, *48*, 2213–2236. [CrossRef]

81. Saha, S.K.; Duarte, P.; Silva, S.C.; Zhuang, G. The Role of Online Experience in the Relationship Between Service Convenience and Future Purchase Intentions. *J. Internet Commer.* **2023**, *22*, 244–271. [CrossRef]

82. Benoit, S.; Klose, S.; Ettinger, A. Linking Service Convenience to Satisfaction: Dimensions and Key Moderators. *J. Serv. Mark.* **2017**, *31*, 527–538. [CrossRef]

83. Bi, Y.; Kim, I. Older Travelers' E-Loyalty: The Roles of Service Convenience and Social Presence in Travel Web-sites. *Sustainability* **2020**, *12*, 410. [CrossRef]

84. Eryiğit, C.; Fan, Y. The Effects of Convenience and Risk on E-Loyalty through the Mediating Role of E-Service Quality: A Comparison for China and Turkey. *J. Int. Consum. Mark.* **2021**, *33*, 613–626. [CrossRef]

85. Ozturk, A.B.; Bilgihan, A.; Nusair, K.; Okumus, F. What Keeps the Mobile Hotel Booking Users Loyal? Investigating the Roles of Self-Efficacy, Compatibility, Perceived Ease of Use, and Perceived Convenience. *Int. J. Inf. Manag.* **2016**, *36*, 1350–1359. [CrossRef]

86. Supriyanto, A.; Wiyono, B.B.; Burhanuddin, B. Effects of Service Quality and Customer Satisfaction on Loyalty of Bank Customers. *Cogent Bus. Manag.* **2021**, *8*, 1937847. [CrossRef]

87. Borishade, T.T.; Ogunnaike, O.O.; Salau, O.; Motilewa, B.D.; Dirisu, J.I. Assessing the Relationship among Service Quality, Student Satisfaction and Loyalty: The NIGERIAN Higher Education Experience. *Heliyon* **2021**, *7*, e07590. [CrossRef]

88. Slack, N.; Singh, G.; Sharma, S. The Effect of Supermarket Service Quality Dimensions and Customer Satisfaction on Customer Loyalty and Disloyalty Dimensions. *Int. J. Qual. Serv. Sci.* **2020**, *12*, 297–318. [CrossRef]

89. Lin, H.-F. The Mediating Role of Passenger Satisfaction on the Relationship between Service Quality and Behavioral Intentions of Low-Cost Carriers. *TQM J.* **2022**, *34*, 1691–1712. [CrossRef]

90. Kim, M. How Can I Be as Attractive as a Fitness YouTuber in the Era of COVID-19? The Impact of Digital At-tributes on Flow Experience, Satisfaction, and Behavioral Intention. *J. Retail. Consum. Serv.* **2022**, *64*, 102778. [CrossRef]

91. Moreira, A.C.; Silva, P.M.F.D. Complaint Behaviour by Third Parties: Exploring Service Quality, Customer Satisfaction and Word-of-Mouth in Health Clubs. *Int. J. Sport Manag. Mark.* **2016**, *16*, 152. [CrossRef]

92. Anabila, P.; Ameyibor, L.E.K.; Allan, M.M.; Alomenu, C. Service Quality and Customer Loyalty in Ghana's Hotel Industry: The Mediation Effects of Satisfaction and Delight. *J. Qual. Assur. Hosp. Tour.* **2022**, *23*, 748–770. [CrossRef]

93. Law, C.C.; Zhang, Y.; Gow, J. Airline Service Quality, Customer Satisfaction, and Repurchase Intention: Laotian Air Passengers' Perspective. *Case Stud. Transp. Policy* **2022**, *10*, 741–750. [CrossRef]

94. Yang, Y.; Qin, Y.; Wang, Z.; Sun, A. The Influence of Emotional Labor of Service Employees on Customer Service Misbehavior and Repurchase Intention: The Role of Face. *Psychol. Res. Behav. Manag.* **2023**, *16*, 1109–1124. [CrossRef]

95. Wu, X.; Gursoy, D.; Zhang, M. Effects of Social Interaction Flow on Experiential Quality, Service Quality and Satisfaction: Moderating Effects of Self-Service Technologies to Reduce Employee Interruptions. *J. Hosp. Mark. Manag.* **2021**, *30*, 571–591. [CrossRef]

96. Sharma, P.; Ueno, A.; Kingshott, R. Self-Service Technology in Supermarkets–Do Frontline Staff Still Matter? *J. Retail. Consum. Serv.* **2021**, *59*, 102356. [CrossRef]

97. Liu, C.; Hung, K. A Comparative Study of Self-Service Technology with Service Employees: A Qualitative Analysis of Hotels in China. *Inf. Technol. Tour.* **2020**, *22*, 33–52. [CrossRef]

98. Söderlund, M. Employee Mere Presence and Its Impact on Customer Satisfaction. *Psychol. Mark.* **2016**, *33*, 449–464. [CrossRef]

99. Glaveli, N.; Papadimitriou, D.; Karagiorgos, T.; Alexandris, K. Exploring the Role of Fitness Instructors' Interaction Quality Skills in Building Customer Trust in the Service Provider and Customer Satisfaction. *Eur. Sport Manag. Q.* **2021**, *13*, 767–788. [CrossRef]

100. Brady, M.K.; Robertson, C.J. Searching for a Consensus on the Antecedent Role of Service Quality and Satisfaction: An Exploratory Cross-National Study. *J. Bus. Res.* **2001**, *51*, 53–60. [CrossRef]

101. De Oña, J. Service Quality, Satisfaction and Behavioral Intentions towards Public Transport from the Point of View of Private Vehicle Users. *Transportation* **2022**, *49*, 237–269. [CrossRef]

102. Eskiler, E.; Altunışık, R. The Moderating Effect of Involvement in the Relationship between Customer Behavioral Intentions and Its Antecedents. *Sage Open* **2021**, *11*, 21582440211014496. [CrossRef]

103. AbouRokbah, S.; Salam, M.A. Quality and Satisfaction in Female Fitness Centers and the Moderating Roles of Age and Income: Empirical Evidence from Saudi Arabia. *Int. J. Sports Mark. Spons.* **2023**. [CrossRef]

104. Lin, J.-S.C.; Hsieh, P.-L. Assessing the Self-Service Technology Encounters: Development and Validation of SSTQUAL Scale. *J. Retail.* **2011**, *87*, 194–206. [CrossRef]

105. Park, S.; Lehto, X.; Lehto, M. Self-Service Technology Kiosk Design for Restaurants: An QFD Application. *Int. J. Hosp. Manag.* **2021**, *92*, 102757. [CrossRef]

106. Chang, Y.-W.; Polonsky, M.J. The Influence of Multiple Types of Service Convenience on Behavioral Intentions: The Mediating Role of Consumer Satisfaction in a Taiwanese Leisure Setting. *Int. J. Hosp. Manag.* **2012**, *31*, 107–118. [CrossRef]

107. Cronin, J.J.; Brady, M.K.; Hult, G.T.M. Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *J. Retail.* **2000**, *76*, 193–218. [CrossRef]
108. Tsourela, M. Sports Consumers Conformity Behavior: Expectations from Online vs. Offline Personal Training Studios Sessions. *Manag. Sport Leis.* **2022**, 1–16. [CrossRef]
109. Oliver, R.L.; Swan, J.E. Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach. *J. Mark.* **1989**, *53*, 21–35. [CrossRef]
110. Maxham, J.G., III; Netemeyer, R.G. Modeling Customer Perceptions of Complaint Handling over Time: The Effects of Perceived Justice on Satisfaction and Intent. *J. Retail.* **2002**, *78*, 239–252. [CrossRef]
111. Grace, D.; O'cass, A. An Examination of the Antecedents of Repatronage Intentions across Different Retail Store Formats. *J. Retail. Consum. Serv.* **2005**, *12*, 227–243. [CrossRef]
112. Fornell, C.; Larcker, D.F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]
113. Zijlmans, E.A.; Tijmstra, J.; Van der Ark, L.A.; Sijtsma, K. Item-Score Reliability as a Selection Tool in Test Construction. *Front. Psychol.* **2019**, *9*, 2298. [CrossRef]
114. Kenny, D.A. MedPower: An Interactive Tool for the Estimation of Power in Tests of Mediation. 2017. Available online: http://davidakenny.net/cm/mediate.htm (accessed on 1 August 2023).
115. Kinoshita, K.; MacIntosh, E.; Sato, S. Thriving in Youth Sport: The Antecedents and Consequences. *Int. J. Sport Exerc. Psychol.* **2022**, *20*, 356–376. [CrossRef]
116. Kelley, N.J.; Davis, W.E.; Dang, J.; Liu, L.; Wildschut, T.; Sedikides, C. Nostalgia Confers Psychological Wellbeing by Increasing Authenticity. *J. Exp. Soc. Psychol.* **2022**, *102*, 104379. [CrossRef]
117. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [CrossRef]
118. Chin, W.W. How to Write up and Report PLS Analyses. In *Handbook of Partial Least Squares: Concepts, Methods and Applications*; Springer: Berlin/Heidelberg, Germany, 2009; pp. 655–690.
119. Hair, J.F., Jr.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Sage publications: New York, NY, USA, 2021.
120. Klarner, P.; Sarstedt, M.; Hoeck, M.; Ringle, C.M. Disentangling the Effects of Team Competences, Team Adaptability, and Client Communication on the Performance of Management Consulting Teams. *Long Range Plan.* **2013**, *46*, 258–286. [CrossRef]
121. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to Use and How to Report the Results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *31*, 2–24. [CrossRef]
122. Shmueli, G.; Sarstedt, M.; Hair, J.F.; Cheah, J.-H.; Ting, H.; Vaithilingam, S.; Ringle, C.M. Predictive Model Assessment in PLS-SEM: Guidelines for Using PLSpredict. *Eur. J. Mark.* **2019**, *53*, 2322–2347. [CrossRef]
123. MacKinnon, D.P.; Lockwood, C.M.; Williams, J. Confidence Limits for the Indirect Effect: Distribution of the Product and Resampling Methods. *Multivar. Behav. Res.* **2004**, *39*, 99–128. [CrossRef]
124. Henseler, J.; Ringle, C.M.; Sinkovics, R.R. The Use of Partial Least Squares Path Modeling in International Marketing. In *New Challenges to International Marketing*; Emerald Group Publishing Limited: Leeds, UK, 2009; Volume 20, pp. 277–319.
125. Blut, M.; Wang, C.; Schoefer, K. Factors Influencing the Acceptance of Self-Service Technologies: A Meta-Analysis. *J. Serv. Res.* **2016**, *19*, 396–416. [CrossRef]
126. Patterson, P.G.; Johnson, L.W. Disconfirmation of Expectations and the Gap Model of Service Quality: An Integrated Paradigm. *J. Consum. Satisf. Dissatisfaction Complain. Behav.* **1993**, *6*, 90–99.
127. Brady, M.K.; Cronin, J.J., Jr. Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *J. Mark.* **2001**, *65*, 34–49. [CrossRef]
128. León-Quismondo, J.; García-Unanue, J.; Burillo, P. Best Practices for Fitness Center Business Sustainability: A Qualitative Vision. *Sustainability* **2020**, *12*, 5067. [CrossRef]
129. Freitas, A.L.P.; Lacerda, T.S. Fitness Centers: What Are the Most Important Attributes in This Sector? *Int. J. Qual. Res.* **2019**, *13*, 177. [CrossRef]
130. Vieira, E.; Ferreira, J.J.; São João, R. Creation of Value for Business from the Importance-Performance Analysis: The Case of Health Clubs. *Meas. Bus. Excell.* **2019**, *23*, 199–215. [CrossRef]
131. Safaeimanesh, F.; Kılıç, H.; Alipour, H.; Safaeimanesh, S. Self-Service Technologies (SSTs)—The Next Frontier in Service Excellence: Implications for Tourism Industry. *Sustainability* **2021**, *13*, 2604. [CrossRef]
132. Howat, G.; Absher, J.; Crilley, G.; Milne, I. Measuring Customer Service Quality in Sports and Leisure Centres. *Manag. Leis.* **1996**, *1*, 77–89. [CrossRef]
133. Zhang, X.; Tavitiyaman, P.; Tsang, W.Y. Preferences of Technology Amenities, Satisfaction and Behavioral Intention: The Perspective of Hotel Guests in Hong Kong. *J. Qual. Assur. Hosp. Tour.* **2023**, *24*, 545–575. [CrossRef]